Commercial Health Ins Issues

Gary Fradin
2025

Table of Contents

Preface

I wrote this book as a text version of various lectures I gave to health insurance brokers over the past decade. It describes, briefly, the functions of health insurance then, in more detail, the problems we face implementing it in the US today and some possible solutions to those problems.

Each chapter addresses a stand alone issue or set of issues but these often overlap. I apologize for redundancy but, in health insurance, similar problems appear in different guises.

Health insurance brokers are generally expert at applying regulations and understanding financial concepts but weak at understanding how the benefits they sell actually affect people medically. I hope this book will address some of that deficiency.

I take the issues discussed here personally and seriously. As a child of the 1960s who, among other things, worked for CARE in Chad, Africa building primary schools and planting orchards - the latter in a leaper colony outside N'Djamena - I have a great passion for activities that improve people's lots in life. I have an equal passion for opposing destructive activities, with unnecessary and overly expensive medical care being prime examples.

I hope you find reading this book a worthwhile experience.

Gary Fradin

January 2024

Commercial Health Ins Origins and Structures

Our healthcare financing system evolved from a vertically integrated 'financing + care provision' system to a non-vertically integrated one. This theme runs throughout today's course.

- Vertical integration means that medical care and medical financing are the same entity, with physicians on salary. Both the financing arm and medical care arm work together to generate the best patient outcomes at the lowest cost. This is the basic concept of a Managed Care Organization or a Health Maintenance Organization (HMO).

  'Managed competition' is competition among vertically integrated healthcare providers. Those generating the best outcomes at the lowest costs will gain customers; those operating at higher costs and generating poorer outcomes will lose. [1]

  Vertically integrated healthcare entities compete with each other on ***value***: outcomes per dollar spent. This incentivizes Managed Care Organizations to improve patient outcomes (life expectancy, diabetes control, post-surgical functionality and similar) without unduly raising prices. It ***dis***incentivizes Managed Care Organizations from providing excessive, unnecessary or low quality care, or raising prices too aggressively. Vertically integrated entities are, therefore, more ethically structured than the alternatives.

  The better a Managed Care Organization improves patient outcomes without raising prices, the more value it creates, the greater the company's market share and the bigger its business. This fits the Utilitarian view of an ethical healthcare system; it provides the greatest good for the greatest number. Good ethics, from this point of view, equals good business. So goes the theory at least.

- A 'non-vertically integrated system' has separate companies handling financing and medical care. Today we call financing companies 'insurance carriers' and medical care provision companies like hospitals and physician groups 'providers.'

  In this non-vertically integrated system, financiers want to pay service providers less and service providers want to bill more. The relationship between the two is 'war' according to Atul Gawande, professor at Harvard Medical School and staff writer for the New Yorker, 'every step of the way'.[2]

---

[1] Alain Enthoven of Stanford University, perhaps our greatest managed care theorist and proponent, has written widely about this which is somewhat outside the scope of this particular chapter. See his seminal article The History and Principles of Managed Competition for more.
http://elsa.berkeley.edu/pub/users/webfac/held/157_VC2.pdf

[2] See Gawande's second book 'Better', chapter entitled Piecework

In a non-vertically integrated system, carriers and hospitals argue over payment amounts and formulas. A very different focus from the vertically integrated model above where the entity's singular goal is outstanding patient outcomes at a reasonable price.

Non-vertically integrated systems, as I suggested above, are designed to generate jobs, incomes, and benefits for participants in it, like doctors, financiers and all the rest.

The more our healthcare system resembles a vertically integrated one, the more ethical it is because it serves the medical needs of patients, creating the greatest health good for the greatest number of patients. The less vertically integrated it is, the less ethical it is because it is designed to serve the needs of relatively few participants.

Ethical brokers, according to the Utilitarians, should help clients emulate the benefits of a vertically integrated system despite the current structure of our healthcare system. This is a heavy lift. We'll address some ways to do this in Chapter 3.

But first, we'll discuss how our healthcare system developed around this vertically / non-vertically integrated idea below. Then, in Chapter 2, we'll discuss various problems that arise from our systemic development.

How Commercial Healthcare Started

As commonly accepted among health insurance historians, commercial health insurance started in Dallas around 1929 as a reaction to the stock market crash and financial meltdown.[3] Baylor University Hospital in Dallas faced a cash crunch and designed a creative solution to pay its bills.

Prior to the stock market cash, hospitals raised funds in two ways. First, they had customers who paid for services rendered - a fairly modest percentage of the population because most people didn't have a lot of money. Second, the community chest, the charitable organizations - the wealthy would donate to the hospital because it was a good place to donate your extra money. Charity made you feel good and was good for the community.

But after the 1929 stock market crash, unemployment reduced the number of patients able to pay, the wealthy didn't have as much money to donate, and the hospital faced a difficult financial landscape. So, Baylor University Hospital made a deal with the Dallas School System. They said, "School system, you always have money; you raise money from taxes. Pay us $.50 per employee per month and when they get sick, they can come to us and we'll take care of them." Commercial health insurance arrived.

A few comments about this.

[3] This suggestion comes from Richmond and Fein, The Healthcare Mess, page 30.

First, it's a nice deal. It's a nice deal for the hospital because they stay in business. They don't have to worry about going out of business. They didn't have to worry about turning people away as long as they got the numbers right, which apparently they did at $.50 per employee per month. The school system payments protected the hospital's cash flow so the hospital stayed in business.

Second, this was very efficient. The hospital signed one contract with one employer group and received back enough money to stay in business. That was a pretty good incentive to look for other large employer groups.

Third, there was no prevention or provider choice, but theoretically the teachers and other employees of the school system were happy because they got medical care essentially for free.

Fourth, this was for hospitalization only; no outpatient or physician office coverage.

Fifth, community rating. The Dallas School System paid $.50 per person per month, regardless of individual medical status. No medical underwriting.

Sixth, there were no quality controls, no outcome-based incentives, no holdbacks for poor hospital performance. Health insurance began simply to save the financial health of the hospital.

This was a vertically integrated system, almost textbook variety. And it exhibited the classic flaw of vertically integrated healthcare systems: lack of consumer choice. As initially developed with Baylor University Hospital, the Dallas school system employees could only go to one hospital. This has advantages and disadvantages.

Advantages:

1. Lower Costs

2. Reasonable medical care from a small number of in-network providers

Disadvantage:

1. Little provider choice as few hospitals are 'in-network'

The Baylor Hospital / Dallas School System deal worked so well that other hospitals copied it. Different hospitals looked for different large employers, offering the same kind of deal. Large manufacturers, the Dallas Morning News, and others. What problem begins to arise?

The Choice Problem

Consumers - school system employees or manufacturing workers, for example - wanted to choose among various hospitals. 'What do I know about Baylor University Hospital? I only know one thing. I know someone who went there and didn't get good care

(whatever ‘didn’t get good care’ means), so I want to go somewhere else.’ Someone always knows of someone else who had a negative experience there. So you want to go somewhere else - consumers want choice.

A different way to understand our demand for choice in healthcare: we don’t *really* trust our own doctor or, indeed, the overall medical system. We somehow think that we – patients – have better medical care insights than the various trained professionals in our network. This uninformed demand for choice has plagued our system since inception.

> The way out of this problem, according to Michael Porter and Elizabeth Olmsted Teisberg in their massive tome Redefining Health Care, is for the government to require results reporting, things like 30-day readmission rates for coronary procedures, 3-6-and-9 month follow-up data on orthopedic patient range of motion and pain, infant and maternal mortality rates and similar. As Porter and Teisberg put it back in 2006: *Mandatory measurement and reporting of results is perhaps the single most important step in reforming the healthcare system*.[4]
>
> We still haven’t made sufficient progress along these lines. That, it seems to me, is a fertile arena for ethical broker interventions. Indeed, that will be our focus in Chapter 3, below.

Remember vertical integration, where finance and service provision are the same company? Once you introduce choice, then you have one group handling finance and another handling service provision. You have a split and you lose vertical integration.

That split happened shortly after the Baylor – Dallas School System deal. A clever entrepreneurial company offered to provide financing for lots of Dallas hospitals. ‘Dallas teachers’ they might have said, ‘you can sign up with Baylor University Hospital only, or, for just a little more money, sign up with us and we’ll give you the choice of many hospitals in Dallas. We contract with lots of hospitals. We have a large network.’

These new companies competed with vertically integrated hospitals, like Baylor University Hospital and the Dallas School System.

The insurance entrepreneurs developed a couple of clever ideas in the 1930s. First, from a marketing point of view, they offered this very attractive provider choice option.

Second, they began searching for the healthiest subscribers. If they could find the healthiest people, they could offer lower priced policies and gain a competitive edge vs. their vertically integrated competitors signing up large employers at a fixed price per person.

Underwriting vs. Community Rating

[4] Porter and Teisberg, Redefining Health Care page 7

The entrepreneurs – we'll call them 'insurance carriers' - figured that they would underwrite better than the competition so people would join them because their premiums would be a little bit lower. The community rating folks faced higher premiums because they took all employees. In a very real sense, underwriting is a form of rationing: people unable to pass the underwriting standard don't get covered. Or they pay a lot more.

Underwriting serves the economic interests of the carriers. It doesn't improve healthcare outcomes. It doesn't improve the healthcare system. It doesn't differentiate medical quality. It doesn't create patient value. It only makes one carrier lower cost than another carrier by having sick people pay more. It's a zero–sum exercise – healthy pay less, sick pay more - since total community medical costs remain the same.

Our private healthcare financing system had little to do with getting people healthy or creating value. That was not its intention. It was designed to protect physician and hospital income, the original Baylor idea. Then carriers came along to make a profit from consumer demand for choice. The demand for choice led to the Split.

The Split and the Provider Payment Problem

Once you split finance from service provision, you have a wider consumer choice and you have to figure out how to pay doctors and hospitals. We're still, today, trying to get this one right.

The original and still most popular payment mechanism is fee-for-service. The doctor gets paid $100 for treating each broken arm and $350 for each rotator cuff surgery, or whatever.

As soon as you split finance and service provision, service providers have an incentive to do more. The more they do, the more they earn.

The insurance carrier, on the other hand, wants to limit the number of treatments only to those necessary to control costs. They ask service providers if they absolutely need to do that procedure. Insurers and providers fight all the time. It's a fight between

- provider clinical judgment, influenced, perhaps, at least psychologically, by the fee-for-service payment formula, and
- carrier financial judgment, influenced, perhaps, at least psychologically, by the same fee-for-service formula. Insurers don't *really* trust provider clinical judgment, at least not without discussion and justification.

That's the conflict between healthcare payers and medical service providers.

Fee-for-service / component financing is inflationary and expensive and not designed to improve patient health. It's designed to reward providers, which it did quite well historically. We, in the US, have traditionally performed more procedures / 1000 of population than similar developed countries around the world. Things today like spinal

fusion surgery, hip replacements, knee replacements, coronary bypass surgeries. The Split between finance and service provision led us down this road. It continues to this day.

The Impact of World War II

World War II plays an important role in our story for three main reasons.

First, the soldiers who received health coverage while in the military wanted to continue with it afterward. They saw the advantages of having health coverage. They married and wanted their families to receive coverage also. This created ***demand*** for health insurance.

Second, our wartime economy devoted significant resources to medical technology improvements. Perhaps most significant was the introduction of sulfa drugs to combat infections and ultrasound, originally used to determine tank structural integrity after battles. Sulfa drugs helped turn hospitals from infection breeding institutions into patient treatment and improvement centers. Ultrasound ultimately became a routine pregnancy evaluation tool. These and other new technologies improved the quality of medical care, or the ***supply.***

Third, the Federal wartime wage and price freezes fostered the development of 'fringe benefits' and the entire benefits industry. That's the financing arm and it's a pretty interesting story.

The government implemented wage and price freezes during the War to avoid domestic economic difficulties and help focus our economy on war production. Employers, in other words, could not raise wages to attract new workers or to reward their best employees. But they could offer 'fringe benefits' such as health insurance. This allowed employers to attract new talent and retain their current employees without raising wages. The concept of 'fringe' meant 'outside the normal compensation' and 'benefits' meant 'advantages of working here'. Employers couldn't simply raise wages, the traditional way of attracting labor, since that was illegal during the war. Fringe benefits were a mechanism to get around the wartime wage freeze.

These 3 factors – increased demand, improved supply, and creative financing - led to a tremendous increase in our insured population. Some coverage data points:

1942: 10 million hospital insurance / health insurance subscribers

1946: 32 million

1951: 77 million[5] out of a total US population of 150 million.

The health insurance industry arrived, grew and gained political power.

[5] Richmond and Fein, The Health Care Mess pages 30 - 38

The Hill Burton Act and an IRS decision strengthens hospitals

Congress, just after World War II, passed the Hill Burton Act to fund hospital expansion. This increased the number of hospital beds in this country by about 40%, from 3.2 per 1000 people to 4.5. It also made hospitals the centerpiece of our medical care system; the travelling doctor who made house calls began to disappear.

Shortly thereafter, in 1953, the IRS decided that fringe benefits were exempt from federal income tax: those became *tax deductible to the employer* but *not income taxable to the employee.* This was essentially a government subsidy for hospital care since that's where most medical care took place. The government stimulated sales of commercial health insurance by subsidizing the price through the tax exemption.

This subsidy for health insurance was so effective that by 1963, 77% of us had hospital coverage, and about 50% had some form of physician coverage.[6]

- Employees liked the system because it appeared free to them.
- Carriers liked the system because the government subsidized their product, tax deductible health insurance policies.
- Hospitals loved the system because they received patients and insurance payments – a wonderful recipe for making money.
- Employers objected somewhat to this system, but not terribly strenuously. After all, the government subsidized their health insurance payments, so they felt the pain only partially.

Through this period, roughly 1930 – 1965, healthcare discussions generally focused on insurance coverage, medical technology, hospital capacity and access. Indeed, access issues took center stage in the mid-1960s because of the potential political power of the elderly and the poor, both of which were left out of the employer based financing system.

Medicare and Medicaid Remove Potential Political Threats to Employer Based Insurance

One potential political threat to our employer based health insurance system could have come from the unemployed – that significant percent of the population that was too old to work or unable to find full time work with benefits. This was potentially a very potent political force that could have lobbied in favor of single payer healthcare, universal coverage or similar, like in other countries.

[6] Enthoven and Fuchs, 'Employment Based Health Insurance: Past, Present and Future' Health Affairs, Nov/Dec 2006

By introducing Medicare and Medicaid in the 1960s, this political force went away. Elderly folks were happy. They didn't demand or need universal coverage because they had Medicare. Ditto the poor with Medicaid. No large, identifiable voting block favored a single payer, universal healthcare system post-Medicare and Medicaid. M & M took that potential voting block off the table.

Here is an estimate of the population size that these two entitlement programs satisfied. I'll use Medicare, because this covers the elderly who vote in particularly high numbers and in particularly important electoral states like Florida.

Medicare Enrollment 1970 – 2020

Year	Number Medicare Enrollees	% of US population
1970	20 million	10%
1980	28 million	12%
1990	34 million	13.5%
2000	39 million	13.8%
2010	47 million	15%
2020	58 million	18%

Medicaid covers about the same population size.

The argument is that Medicare and Medicaid are key supporters of our employer based, commercial health insurance system. They allowed the system to grow and become entrenched nationally in the second half of the last century.

Post passage of Medicare and Medicaid, i.e. by the late 1960s, healthcare costs and cost increases became an issue. Indeed, in 1969 Robert Finch, then Secretary of Health, Education and Welfare warned Congress that "the nation is faced with a breakdown in the delivery of health care unless immediate concerted action is taken by government and the private sector". Both costs and the very structure of our healthcare delivery system became a topic of national debate, leading to a reconsideration of vertical integration.

Nixon's HMO Act of 1973

Nixon had to do something to address the rising costs of healthcare, but felt politically wedged-in. He couldn't support a Democratic healthcare plan sponsored by one of his chief rivals, Ted Kennedy. Nor could support a Republican plan sponsored by another political rival, Nelson Rockefeller – especially a plan that potentially harmed the physicians, hospitals and insurance carriers that supported Nixon politically.

He chose, instead, to pursue Health Maintenance Organizations, then conceived as a prepaid healthcare system that would motivate doctors and hospitals to control costs

and keep patients healthy. Many conservative politicians and organizations agreed with the HMO idea because it was flexible, inexpensive, encouraged private investment in profit-making organizations and imposed few mandates or regulations. It sorta, kinda, almost resembled Baylor's original plan with the Dallas School System.

Nixon's plan faced opposition from both the left and right between 1970 – 1973. Kennedy and the Left consistently fought for higher levels of guaranteed benefits, community rating, open enrollment periods and significant Federal grants and loans to help HMOs proliferate. The American Medical Association and the Right wanted only basic levels of guaranteed benefits, less government funding and individual underwriting.

As a result of these competing pressures and Nixon's determination to implement his own plan (i.e. not Kennedy's or Rockefeller's), the HMO Act of 1973 deviated from our ideal vertically integrated model in three main ways:

First, under Nixon's law, HMO meant simply 'prepayment'. Healthcare delivery and healthcare finance were separate functions handled by separate companies. This satisfied independent insurance carriers, physician groups and general hospitals - all parts of Nixon's political base. But it lacked the key integration feature that made real managed care organizations like Kaiser-Permanente so successful.

Why did carriers, physician groups and general hospitals dislike vertical integration? The short answer: they wanted to compete for revenues with each other.

Carriers hoped to dominate the marketplace and dictate economic terms to providers. The American Medical Association wanted its members to remain free from carrier or hospital meddling so they could protect their incomes. Hospitals wanted to determine patient lengths of stay to protect their own cash flow.

None of these groups trusted the others or the government to protect their interests.

Second, Nixon's law called for a loose physician structure, in which practitioners could opt in or out of any HMO. Again, this satisfied the insurance, physician and hospital groups. But it was the opposite of vertical integration's tight structure in which physicians were fully integrated into both the hospital and financial system. The loose physician structure meant that providers lacked loyalty to any specific HMO.

Third, Nixon's law allowed providers to bill insurance carriers on a fee-for-service basis, not on a capitation basis.

In a capitated system, the vertically integrated HMO only received a specified amount of money per patient per year. The old Baylor – Dallas school system model charged $6 per employee per year. As long as Baylor University Hospital kept its costs below $6 per employee, it made money. But if Baylor's costs exceeded $6, it lost money and potentially went out of business.

Capitation, in other words, forced HMOs to control costs and use their resources efficiently. Absent capitation as in Nixon's Act, much of the underlying financial discipline disappeared.

These three factors – separate companies for finance and service provision, loose relationships between physicians and HMO entities and little-to-no capitation - drastically altered the original vertical integration model. Stanford Medical School Professor Alain Enthoven, for example, a key managed care theorist, argued in 1993, 'Some say that managed care has failed. I say that managed care has not yet been tried' since Nixon's HMO Act so perverted the vertical integration model.[7]

By the early 2000s, American healthcare had given up on the vertical integration / managed care approach in fact, if not in name, in favor of the fee-for-service based billing platform. Stanford's Enthoven articulated the fee-for-service flaws in his 2004 book 'Toward a 21st Century Health System' page xxix.

1. Fee-for-service creates an adversarial relationship between doctors and payers;
2. Fee-for-service has little accountability – poor data collection and provider motivations for economy;
3. Fee-for-service 'free choice of provider' leaves patients to make remarkably poorly informed choices;
4. Fee-for-service generates excess hospital capacity, high tech equipment and open-heart surgeries;
5. Fee-for-service generated an excess supply of specialists;
6. Fee-for-service misallocates resources, as no incentive to use the least costly settings for treatment;
7. Fee-for-service has no capacity to plan care processes from diagnosis to treatment to rehabilitation;
8. Fee-for-service has led to a dangerous proliferation of facilities for complex and costly procedures without the volumes necessary to maintain good outcomes;
9. Fee-for-service cannot practice total quality management due to lack of service integration;
10. Fee-for-service cannot organize the rational use of technology.

We created, in other words, a healthcare structural mess in our quest for patient choice, profits and jobs.[8]

Consumer Driven Healthcare to the rescue (or not)

[7] Enthoven, Why Managed Care Has Failed to Contain Health Costs, Health Affairs, 1993, paraphrased for context here.

[8] 'Mess' comes from the title of Richmond and Fein's 2005 book, The Healthcare Mess, op cit.

With the failure of the HMO movement, our commercial healthcare industry needed a new paradigm. One attempt was CDHC or Consumer Driven Health Care. The term ‘consumer driven health care’ arose from the Medicare Modernization Act of 2003 which established Health Savings Accounts.

‘Consumer driven products’ are high deductible health insurance policies with certain tax benefits. Each consumer spends the deductible as he/she sees fit, for physician visits, medications, tests, therapies etc. Only after satisfying the deductible does insurance pay. Then, depending on the specific plan design, insurance pays all or part of additional medical expenses.

CDHC policies embrace the notion of consumer sovereignty. Consumer sovereignty means each individual consumer makes decisions in ways he or she deems best for themselves; individual patient decision making for themselves, not physician decision making for patients would now drive our healthcare system.

Consumer driven healthcare implicitly accepts The Split between healthcare finance and service delivery as a given. Effectively, HSAs and the entire CDHC movement says ‘The Split exists and we can’t figure out how to fix the problems it causes, so we’ll turf the whole thing onto patients. Maybe they can rationalize our otherwise irrational system’. Maybe, in other words, they can make the system operate more ethically.

It didn’t go well.

Problems equating high deductibles with consumerism in healthcare

Consumer driven healthcare as practiced using Health Savings Accounts, similar tax-deductible programs, and medical care price lists fail in healthcare for two main reasons.

First, an annual $1000 deductible (or even $3000) is too small to act as a real medical spending brake. Once satisfied, and depending on the specific plan design, all other medical care is free.

A patient might satisfy that deductible hurdle in January and then enjoy lots of excessive and unnecessary medical care for free during the next 12 months. Patients could even ‘play’ the system by scheduling all their expensive medical treatments during the same calendar year.

Or the deductible has little impact on a patient facing an expensive procedure. What’s the difference to the patient if the procedure costs $45,000 …. $50,000….$60,000 or $100,000? Once the deductible is satisfied, the rest is free. ‘Consumerism’ fails to affect patient behavior in these expensive cases.

This fundamental flaw in the ‘high deductible = consumer driven healthcare’ thesis exists because the vast majority of healthcare spending goes to a very small group of

high cost patients. Here's spending by percentage of the population. These numbers have remained remarkably constant for years.

Healthcare Consumption by % of Our Population [9]

1% of our population accounts for about 24% of medical spending

5% of our population accounts for about 49% of medical spending

10% of our population accounts for about 64% of medical spending

50% of our population accounts for about 97% of medical spending

50% of our population also accounts for 3% of medical spending.

The healthiest half of our population costs very little medically. These are typically the folks who purchase CDHC products and who often spend less than $1000 annually. Cutting their spending by 20 or 30% would have virtually no impact on *overall* medical spending or trend.

Here's the same chart using 2022 spending amounts, not percentages. In 2022, total US healthcare costs reached about $4.4 trillion for the approximately 333 million of us. Though the average annual healthcare spending per person that year was about $13,400,

The 1% heaviest users (3.3 million people) averaged about $320,000 each;

The 5% heaviest users (16.7 million people) averaged about $129,000 each;

The 10% heaviest users (33 million people) averaged about $85,000 each;

The 50% lightest users (167 million people) averaged about $790 each.

Very few of the 10% of users who account for about 2/3 of all medical spending will change their medical choices based on a $1000 (or even $2500 or $5000) deductible. *Whatever* the deductible, their medical care needs far exceed it.

Second, medical consumers have little meaningful quality information, and even if they have it, they rarely know how to use it. This makes medical decisions different from, say, car purchasing decisions. The car buyer can compare the quality of various cars before deciding which to purchase. Large or small, good gas mileage or poor, lots of luxuries or few, high resale value or low, etc.

But the medical purchaser generally has very little similar information. Which doctor has the best outcomes? Which hospital? How effective is this medication compared to that one? We generally lack detailed answers to these questions.

[9] Yu, et al, 'Medical Expenditure Panel Survey Statistical Brief #81', May 2005, Agency for Healthcare Research and Quality

For these two reasons – unequal healthcare spending and lack of medical quality information / well educated medical consumers - so-called Consumer Driven Health Care had only a small impact on medical trend which has run at our gdp growth rate plus 3 – 5% annually for years. CDH policies became the vogue in the early 2000s. They pretty much ran their course within about a dozen years.

Americans continue to spend about twice as much on healthcare as other developed countries without getting any value for the excess spending, just as we did prior to CDHC policy introduction. Here are estimates for 2019, the last year before Covid hit and altered these statistics with a unique set of circumstances. (I don't know if or how Covid is representative of 'normal' healthcare trends, so I'll leave that out of this analysis.) [10] I could have included more countries but you get the idea from this limited comparison.

2019	Annual spending / capita	Life expectancy at birth
US	$10,855	78.8
Canada	$6,730	82.3
France	$4,014	83
Spain	$2,412	84
UK	$3,334	81.4

These other countries live 4 – 5% longer than us while spending about half as much on healthcare. We clearly haven't figured out how to generate good value for our healthcare system investment. We haven't figured out how to generate the greatest good for the greatest number.

The Affordable Care Act gives up on vertical integration in favor of wider coverage

The 2010 Affordable Care Act, a massive piece of legislation, is more-or-less a business plan for our entire healthcare economy.

Vast in scope and complexity, it's far too big to summarize quickly here. Instead, I'll focus only on 2 components: coverage expansion and patient decision-making assistance.

Why healthcare reform in 2009

[10] OECD Health Data statistic updated annually https://stats.oecd.org/Index.aspx?ThemeTreeId=9

President Obama decided to move aggressively on healthcare because of several disturbing trends. From 2000 - 2006

- Health insurance premiums rose by about 80% while
- Overall inflation only rose by 20%, but
- Median household income was actually down 3% in real (after inflation) terms.

Obama and his aides worried about two different health insurance death spirals especially affecting the individual and small group markets.

The **first** would occur when healthy people decide not to purchase health insurance, thus leaving only sick people in the insurance pool. Premiums would rise quickly forcing 'healthier' sick people opt out, leaving only the sickest of the sick still in. Health insurance then would become a payment program for sick people. It wouldn't, under these conditions, play its traditional role of protection against catastrophic financial calamity due to an unexpected illness for the vast majority of Americans.

The **second**, separate though somewhat related death spiral would occur when young people decide that health insurance is too expensive to purchase. Young 'Invincibles' – so called because they don't think they'll get sick – exit the market, leaving only older and more expensive participants in the pool. Again premiums rise, causing more and more young, healthy people to leave the pool and thus depriving the insurance pool of this healthy, inexpensive population.

Obama worried that continued economic stagnation - as began with the stock market crash in 2007 - would exacerbate both situations. Indeed, the number of uninsured had risen by about a million people per year from under 44 million in 2002 to over 50 million in 2009.

Among the reasons for this huge uninsured problem was our change in national economic circumstances. Our post-World War II economic dominance had lessened and along with it, businesses' ability to generate sufficient margin to cover all employee benefits. Employers responded to the changed economy by shifting benefit costs to their employees and outsourcing. That's why the percent of Americans covered by commercial / employer based health insurance shrunk from 59% to 48% between 2000 and 2020. Meanwhile, the number of Medicaid recipients and uninsured Americans grew. [11] (I included the 2020 numbers to show trend and the ACA impact.)

[11] Medicaid data from stasta.com https://www.statista.com/statistics/245347/total-medicaid-enrollment-since-1966/. Uninsured data from the CDC including https://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201106.htm#:~:text=Results-,Lack%20of%20health%20insurance%20coverage,(Tables%201%20and%202) and https://www.google.com/search?q=number+uninsured+americans+2020&rlz=1C1ONGR_enUS1065US1

Year	Number of Medicaid Beneficiaries
2000	34 million
2010	54 million
2020	76 million

Year	Number Uninsured Americans
2000	39 million
2010	49 million
2020	32 million

Thus, the prime focus and effect of the Affordable Care Act was coverage expansion, perhaps somewhat ethical in that it provided a greater good – health insurance – to a greater number of Americans. I'm underwhelmed by the ethical achievement of giving more people financial access to our otherwise unethical system. Our overall life expectancy numbers – flat since 2010 - support this skepticism. See below pages 25 – 26.

One way the ACA addresses vertical integration and The Split

The ACA also, in a relatively hidden and small way, addressed problems cause by The Split between healthcare finance and service delivery. We have already discussed how this grew out of the Baylor – Dallas School System's initial commercial insurance venture, how Nixon attempted to put this genie back into the bottle, and how the introduction of Health Savings Accounts and similar products cemented The Split into our healthcare system architecture.

Section 3506 of the Affordable Care Act discusses Shared Decision Making. Here is the legislative summary:

> The purpose of this section is to facilitate collaborative processes between patients, caregivers or authorized representatives, and clinicians that engages the patient, caregiver or authorized representative in decision making, provides patients, caregivers or authorized representatives with information about trade-

066&oq=number+uninsured+americans+2020&gs_lcrp=EgZjaHJvbWUyBggAEEUYOdIBCDYwMzdqMGo3qAIAsAIA&sourceid=chrome&ie=UTF-8

> offs among treatment options, and facilitates the incorporation of patient preferences and values into the medical plan.

We can read this as an attempt to circumvent The Split by helping patients make wise decisions in conjunction with but not entirely based on, their physician's recommendations. It harkens back to Porter and Teisberg's position on the importance of publicly available outcome measurement and results reporting. The ACA in this section recommends that patients not rely blindly on their physician's advice for two main reasons:

> First, the ACA recognizes the economic reality of physicians providing excessive care – sometimes – in response to the economic incentives they face.
>
> Second, the ACA understands that preference-sensitive care exists.

Preference-sensitive simply means that various treatment alternatives often exist. Some patients might reasonably prefer orthopedic surgery while others, equally reasonably, might prefer physical therapy. Or medication vs. surgery. Or other options.

Section 3506 implicitly accepts The Split as reality and legislates a mechanism to ameliorate its most negative consequences.

Where We Are Today
Post HMO, post ACA, post Split

Managed care as vertical integration has disappeared from our healthcare landscape. Today, post-Consumer Driven Healthcare and post-ACA, we live in a fee-for-service based medical billing environment. Each individual actor in our healthcare system faces various economic incentives either to provide or control care severity; each individual patient is supposed to make wise healthcare decisions while relying on the advice of financially compromised actors.

We don't do this very well. At $4.4 trillion – our 2022 healthcare spending - our *healthcare* economy was larger than France's total gdp (about $2.8 trillion) or Britain's ($3.0 trillion) and about twice as big as Russia's ($2.2 trillion).[12]

We have the highest healthcare expenditures per capita or as a percentage of our GDP in the world. See below, a list of per capita healthcare spending in countries that live longer than the US national average or any individual US state average:[13]

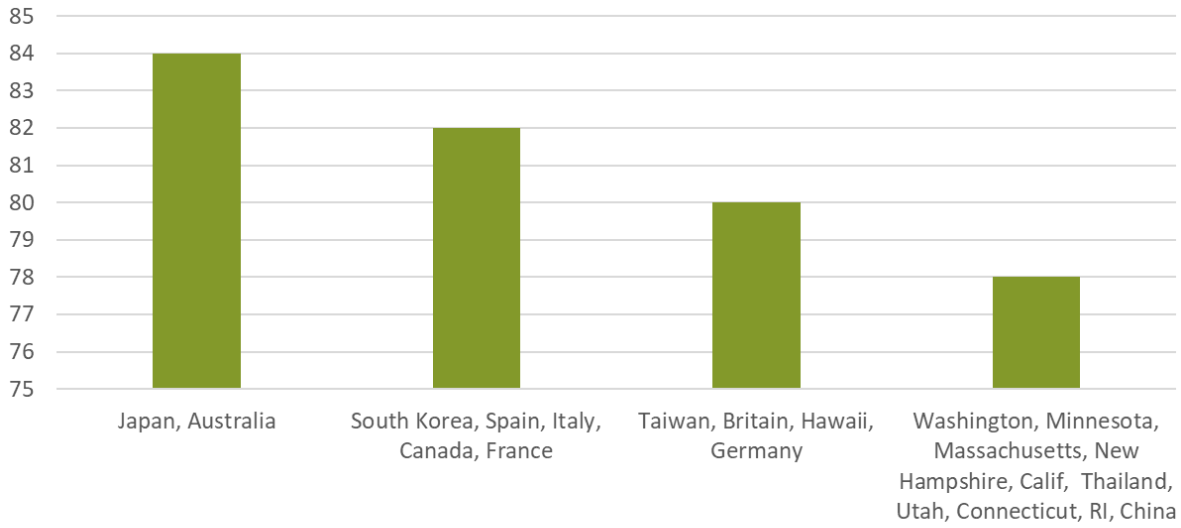
[12] World Bank, Gross Domestic Products 2022 https://data.worldbank.org/indicator/NY.GDP.MKTP.CD

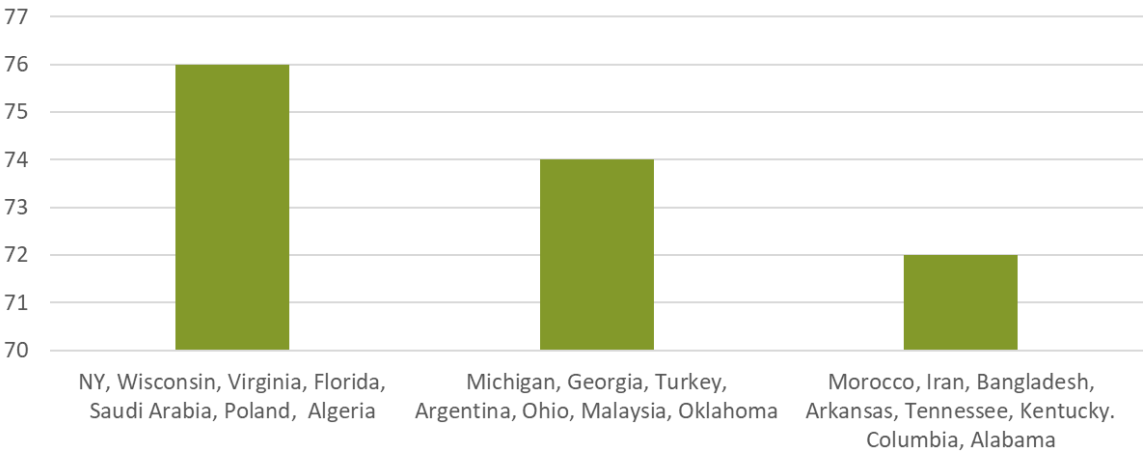
[13] Data from Statistica https://www.statista.com/statistics/236541/per-capita-health-expenditure-by-country/#:~:text=In%202022%2C%20the%20United%20States,highest%20per%20capita%20health%20expenditure.

Country	2022 per capita health spending
US	$12,555
Australia	$ 6,569
France	$ 6,516
Canada	$ 6,319
Japan	$ 5,250
South Korea	$ 4,569
Spain	$ 4,461
Italy	$ 4,290

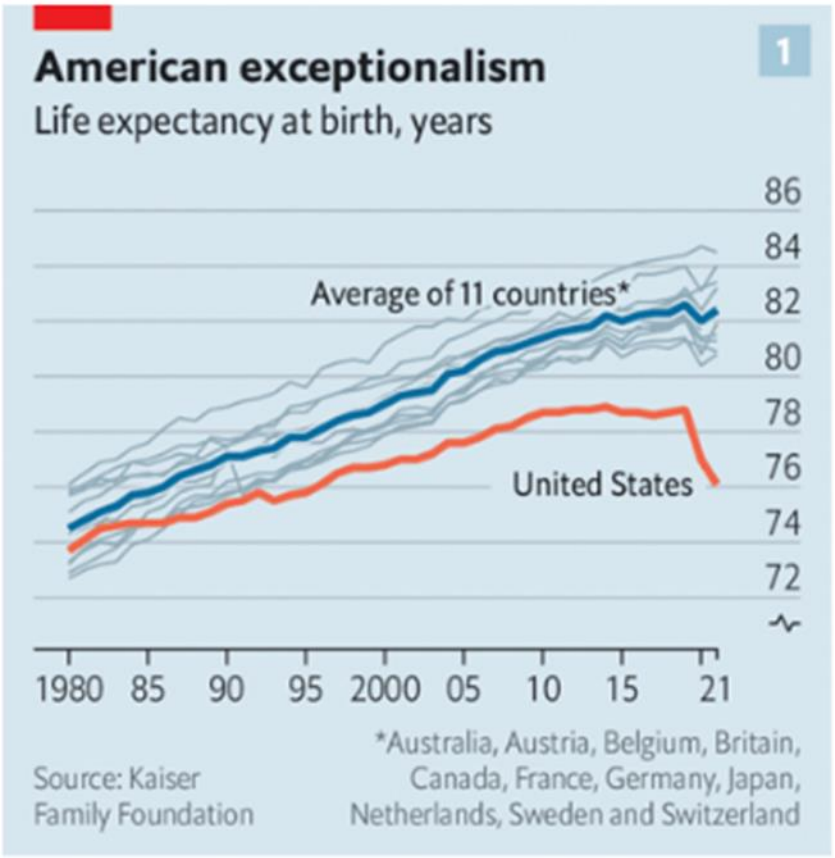
One way to see the magnitude of our healthcare system inefficiency is to see how those various countries compare to US state longevity at birth averages. These data were originally developed by the National Center for Health Statistics at the United Nations and presented by Nicholas Kristof in the New York Times, August 17, 2023. As you review these charts, consider this question: if private, commercial health insurance is as beneficial a system as its proponents claim, then why do we see such mediocre outcomes?

Average Longevity at Birth
Various countries compared to US States
Life expectancy in 2 year age bands on the left
‘82’ means ’82 – 84 years’; ‘78’ means '78 – 80 years’





Equally or perhaps more upsettingly, we have experienced **no** national life expectancy gains since about 2009, despite spending more each year on medical care. This differs from other advanced, industrialized countries. See the chart below published in The Economist, July 13, 2023. Note first that Americans, while spending more on medical care than the others, enjoyed shorter life expectancies. Equally interesting (upsetting), see the 2009 – 2020 period, before Covid, when our life expectancy was flat – despite spending more on medical care each year - while the others improved. Finally, note the relative impact of Covid on American and other life expectancies.



All this looks to me like a living, working, breathing definition of an ineffective, inefficient healthcare system. It *always* rewards the relatively few participants in it but only *sometimes* benefits the huge number of patients who need it.

Why do we have this spending-to-outcome discrepancy? Why does our largely private sector, commercial healthcare system perform so poorly?

Some Commercial Health Ins Structural Problems

Brokers know many of the specific problems that afflict our healthcare system. These range from complicated insurance rules that differ by carrier to complicated billing rules that differ by provider to complicated access rules that differ by policy, to many others. Additional system problems also include high overheads caused by having so many different insurance carriers, providers, treatments, medications and options. I originally thought about simply listing a bunch of problems that brokers face regularly and discussing some ethical issues that arise from dealing with them.

But let's go in a different direction. Instead of simply listing a bunch of problems, let's try to identify a core structural issue caused by The Split that underlies many – maybe even most – of these specific issues. This helps us address our ethical problem and understand why our commercial healthcare system fails to produce the greatest good for the greatest number.

We'll do all this by introducing an economic concept alternately called The Tyranny of Small Decisions or The Tragedy of the Commons. The first – the Tyranny of Small Decisions – often leads to the second, the Tragedy of the Commons.

Consider the visual image of a paradigm old English village to introduce these ideas. In this little village, a bunch of farmers lived in small houses around a central public open space called 'the Common' in which cows grazed. Each farmer had a cow or two and the Common provided sufficient room and grass for them all to graze and grow.[14]

Now imagine that our old English village prospered and grew. Families bought a second, third, fourth or fifth cow. New families moved in, each with a few cows. After a while the Commons became too small to support all these cows. Each individual cow lost weight and produced less milk. Villagers' incomes fell. The Commons became overgrazed. Its topsoil began to erode after each rain and eventually the grass disappeared. It ultimately became useless for grazing. We might call this the Tragedy of the Commons v1, in which everyone uses too many resources so there are not enough for all. [15]

In v1, each individual's small decision, made in each individual's own interest, diminished the overall good. The Tyranny of Small Decisions led to overgrazing and, in turn, to the Tragedy of the Commons in which everyone ended up worse off.

As an alternate version of this story, instead of each villager buying an extra cow, a new person moves to town with 30 cows. The Commons couldn't support this increase and

[14] Many New England towns have a Common today. Think of Boston Common or Cambridge Common in Massachusetts, places where cows grazed in colonial times but today are nice public parks.

[15] Apparently this happened to the Mayans in Central American centuries ago and the environmental degradation led to their civilization's destruction, though I'm not a Mayan historian. I did, however, enjoy a fascinating trip to Belize and Guatamela in 2020.

the tragedy unfolded. In the Tragedy of the Commons v2, one person consuming too much destroys the benefit that everyone enjoyed from their shared resource.

In either case, the Tyranny of Small Decisions, in which people individually made decisions to maximize their own welfare, led to overgrazing and, in turn, to the Tragedy of the Commons.

Another way to phrase this: the Tragedy of the Commons decreases the amount of good for the great number of people.

Let's update this to a real situation in Pomfret Vermont, 2023. Pomfret, a small town, apparently enjoys spectacular foliage each fall. [16] A relative handful of tourists annually enjoyed it. In 2021 or 2022 though, a Tic Tok influencer, apparently one of those tourists, broadcast descriptions of Pomfret's beauty to his or her audience. A few local inns also advertised the town's beauty. Thousands of tourists arrived. The town became overwhelmed. Among the problems:

- Tourists blocked Margarete Pierce's driveway, parked illegally on her land, and used her garden house as a toilet,
- Cathy Emmons watched tourists stroll onto her farm and steal tomatoes from her vine,
- Mike Doten got tired of pulling tourists out of ditches with his tractor.

According to the Boston Globe's description, 'The town's selectboard … voted to block the road to anyone except residents for three weeks at the height of the foliage season, from Sept. 23 to Oct. 15…Windsor County deputy sheriffs will staff checkpoints at the bottom of Cloudland Road in neighboring Woodstock and at the top of the road here in Pomfret." (I don't know how this is legal but that's a separate issue.)

The Tyranny of Small Decisions – individual publicity for individual interests - led to the Tragedy of the Commons, so now no tourists can enjoy Pomfret's beauty during foliage season.

The Tyranny of Small Decisions and the Tragedy of the Commons can provide a framework to understand many of our healthcare system problems. Let's explore some of them.

Medical Care Rationing. Rationing or 'the limiting of goods or services that are in high demand and short supply' per Investopedia, is a classic unintended, indirect consequence of the Tyranny of Small Decisions. We'll consider two case studies.

[16] This story comes from the Boston Globe, Sept 18, 2023 https://edition.pagesuite.com/popovers/dynamic_article_popover.aspx?artguid=04b5fe08-f5ff-489d-acbe-ae0c5035891e

First, pediatric bed rationing in Boston. Tufts Medical Center, Boston, closed its 41 bed inpatient pediatric unit in July 2022, then repurposed them as adult inpatient beds.[17] The justification, according to Dr. Daniel Rauch, Tufts Chief of Pediatric Medicine: “Should we take care of kids we don’t make any money off of, or use the bed for an adult who needs a bunch of expensive tests?...If you’re a hospital, that’s a no-brainer.”[18] Tufts could bill more for adults than kids. A small decision that clearly benefited Tufts’ bottom line. Pretty simple to understand.

But a local Tragedy of the Commons followed, documented with Boston Globe headlines like:

October 21, 2022:

Hospitals scramble to find beds as pediatric admissions rise

By Jessica Bartlett Globe Staff, Updated October 21, 2022, 8:08 p.m. 126

November 10, 2022

Hospitals postpone pediatric surgeries as capacity crunch escalates

By Jessica Bartlett Globe Staff, Updated November 10, 2022, 5:37 a.m. 25

Hospital executives said pediatric intensive care unit beds at Massachusetts General for Children were operating at 150 percent capacity, and there were few signs the surge was nearing an end.

December 11, 2022

Hospital finances play a major role in the critical shortage of pediatric beds for RSV patients

Health Dec 11, 2022 10:33 AM EDT

[17] Boston Globe ‘Who will care for our sickest children’, Oct 26, 2022

[18] NY Times As Hospitals Close Children’s Units…, Baumgaetner, Oct 11, 2022

This Commons Tragedy continued with higher prices. According to the Massachusetts Health Policy Commission report in September 2023, Children's Hospital and Mass General Brigham, representing about 73% of pediatric discharges in Massachusetts, have the highest commercial prices in Massachusetts. Among the data points in that report, the average commercial price per pediatric discharge at Boston Children's was 47 percent higher than at other state hospitals with significant inpatient volume, even after adjusting for the illness of the patient.[19]

Here, the few service providers benefit financially while the rest of us pay higher prices for the same care … if we can find it. Our national total number of inpatient pediatric beds fell by 19% from 2008 to 2018. The Tufts closing followed this trend. Pediatric hospitals have recently closed or partially closed in Richmond Virginia, Colorado Springs Colorado, Raleigh North Carolina, Doylestown Pennsylvania and Shriners New England because 'kids are not lucrative'. [20]

The Tyranny of Small Decisions – each hospital followed its own economic self-interest and closed less profitable beds in favor of more profitable ones to earn more money – led to a tragedy for the rest of us. A few service providers and investors made more money while many sick kids and their families suffered longer waits for care, longer ambulance or med flights to hospitals, higher prices and perhaps ended up medically much worse as a result.

Greatest good for the greatest number? I think not.

Second, maternity ward rationing in central Massachusetts and nationally. Leominster Hospital closed it maternity ward in 2023. Their justification: "reimbursement rates paid to hospitals for treating maternity unit patients on Medicaid are far lower than what private insurance plans pay" particularly harming Gateway cities like Leominster according to the Boston Globe's June 25, 2023 analysis.

Maternity beds in Gateway Cities were, in other words, unprofitable or at least less profitable than other types of hospital wards or other types of patients.

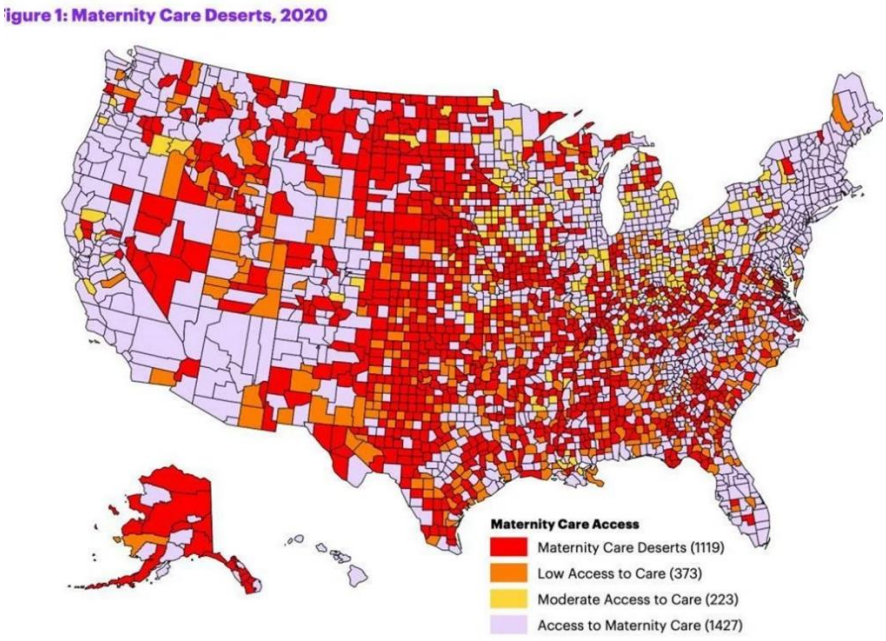
Leominster's closure also followed a state trend. Holyoke Medical Center closed its maternity center in 2020. Harrington Hospital in Southbridge closed its center in 2017.

And all this follows a national trend. According to the March of Dimes, the number of maternity deserts in this country – counties with no hospital providing maternity care, no

[19] Jessica Bartlett, Boston Globe, Sept 10, 2023

[20] Boston Globe 'Who will care for our sickest children', Oct 26, 2022

birth center, OB/GYN, and no certified nurse midwife – has increased over time, mainly in rural areas.[21] Here's their 2020 map



Pregnant women had to drive farther for their appointments and to give birth. This negatively affects them. Health Affairs reported that, after controlling for socioeconomic factors and clinical conditions, "rural residents had a 9 percent greater probability of severe maternal morbidity and mortality, compared with urban residents."[22]

Hospitals made more money – Tyranny of Small Decisions. Patients ended up worse off – Tragedy of the Commons. The same story unfolds time and time again, in specialty after specialty and treatment arena after treatment arena.

Let's switch focus now away from rationing and explore other clinical and ethical implications of the Tyranny and Tragedy.

Excessive care. Excessive care incentives so permeate our post-Split, commercially based healthcare system that Andrew Dreyfus, former CEO of Blue Cross Blue Shield of Massachusetts, claims healthcare today 'is designed around the needs of institutions and health professionals and not around the needs of patients'. [23]

[21] March of Dimes maternity desert report https://www.marchofdimes.org/maternity-care-deserts-report

[22] Rural-Urban Differences In Severe Maternal Morbidity And Mortality In The US, 2007–15, Health Affairs, December 2019

[23] Boston Globe, June 22, 2018

Excessive care through disease mongering. Disease mongering means hyping treatments for little known diseases, more or less advertising diseases for which your company has a treatment. This instills fear among patients, expands markets and positions your product as a solution. Pfizer appears to engage in disease mongering about RSV with this ad, published in the Boston Globe, August 24, 2023, page 5.

We know this is disease mongering and not a public service announcement because Pfizer is not a public education organization; it's a private sector pharmaceutical that makes money by selling medications. This ad helps that process.

Other disease mongering examples exist too – look for them on TV and in your local newspapers - but I want to move on and discuss two other, related concepts: *overdiagnosis* and *overtreatment*. Overdiagnosis means broadening disease definitions so more people quality for medical care. Overtreatment means providing more care than necessary to patients. Both overdiagnosis and overtreatment can cause patients to experience higher care treatment risks and side effects without also enjoying higher chances of treatment benefit.

Excessive care through overdiagnosis. Overdiagnosis means broadening disease definitions so more people quality for medical care. According to H. Gilbert Welch, the overdiagnosis guru, it occurs "when individuals are diagnosed with conditions that will

never cause symptoms or death."[24] Overdiagnosed patients, in other words, *can't* benefit from care because they weren't sick to begin with. But medical care providers, testers, drug manufacturers and similar *can* benefit financially by treating these patients. We'll consider just one example, overdiagnosis of hypertension.[25]

In 1997, the definition of hypertension (high blood pressure) changed from diastolic blood pressure of 160 over systolic blood pressure of 100 to 140 / 90. That immediately switched about 13 million people from having normal blood pressure to having high blood pressure, or, in our terms, increased the market for blood pressure lowering medications by 13 million people.

The definition of hypertension changed more times, always increasing the number of people so-diagnosed. In 2017, for example, the American College of Cardiology and American Heart Association redefined hypertension as greater than 130 / 80, again increasing the number of hypertension patients and the market for hypertensive medications. I don't know how many people this affected.

During this time period, sales of ACE inhibitors, medications to treat hypertension, grew at an annual compound growth rate of 5%, hitting $6.9 billion in 2023. Ditto for various other anti-hypertensive medications. The hypertension redefinition appears to have stimulated these medication's sales (or, at least, didn't hurt) and again, benefited a few participants in our healthcare system.

Did the redefinition help the Commons? First, some data. The age adjusted heart disease mortality rate fell in this country from 170.5 per 100,000 in 2012 to 161.5 in 2019 or, using my back-of-the envelope calculation, by about 30,000 people annually nationally.[26] 30,000 fewer deaths divided by 13 million new patients = about 0.2% benefit. That's two tenths of one percent. About 99.8% of the newly diagnosed patients did not benefit from the new hypertension definition while 0.2% did. Maybe. That's the most optimistic reading of these data.

This interpretation assumes the redefinition itself led directly to the 30,000 fewer deaths. We don't know that to be the case. The entire mortality decrease could have been caused by other factors – less smoking, better diets, better overall physician advice or something else. We just don't know. At best 0.2% of the newly redefined-as-sick folks benefited from the redefinition. Perhaps none did.

All this raises some troubling questions, including

- How impactful were the redefinitions in preventing heart disease deaths?

[24] H. Gilbert Welch, Overdiagnosed, page xiv

[25] This case study comes largely from Welch, Overdiagnosis pages 20 - 23

[26] Mortality rate data from the National Center for Health Statics, part of the US Centers for Disease Control and Prevention https://www.cdc.gov/nchs/hus/topics/heart-disease-deaths.htm

- How impactful were ACE inhibitors in reducing heart disease mortality?
- How important were other medications?
- How many people were harmed either physically, emotionally, or financially by taking these medications after they were redefined as ‘sick’, not ‘normal’?
- Could we have reduced heart disease mortality by a similar amount in less expensive ways than redefining at-risk folks and prescribing medications for them?
- Did the increase in hypertension medication sales and associated corporate profits affect the new hypertension definition?

A disturbing consideration of this last point comes from Otis Brawley, former Chief Medical and Scientific Officer of the American Cancer Society in his book How We Do Harm. He suggests that of our 555 guidelines (555!) for treating hypertension, “some are self-interested and harmful. Many are commercial documents”[27] meaning they’re designed to sell products, more-or-less a form of disease mongering. No one, according to Brawley, promulgates good practices for guideline composition or hypertension redefinitions. Might the 1997 and other redefinitions reflect commercial pressures? Might this simply be the Tyranny of Small, Self-Interested Decisions on the part of hypertension treaters?

All we know for sure is that more Americans are now diagnosed with hypertension and that a very small percent of them benefit from redefinition as measured by age adjusted mortality rates per year. Medical statisticians could parse this analysis far better than I – this is simply an introductory overview – but at first cut, a 2/10s of 1% benefit rate appears underwhelming or, in our terms, like overdiagnosis.

But the drug makers, labs and related folks made more money.

We could expand this analysis, as Welch did in Overdiagnosed, to include hyperlipidemia (high cholesterol), diabetes, osteoporosis in women and many more. I hope, though, this one example can suggest what overdiagnosis is, why it’s a systemic problem and, more directly for our purposes today, why it’s an ethical one for brokers.

Excessive Care Through Overtreatment. Overtreatment means providing more care than necessary to patients. Patients can’t benefit from overtreatment by definition; overtreatment is care that does not provide benefit. But patients can be harmed by it because all medical treatments involve some element of risk. The more care someone receives, the higher the chance of risk. An overtreated patient gets all the risks without the possibility of benefit.

But the overtreatment *providers* still get paid.

[27] Brawley, How We Do Harm, page 243

Consider coronary stents as one overtreatment example. According to research from the Lown Institute, between 2019 – 2021, US hospitals performed over 229,000 unnecessary coronary stent procedures, or about 1 every 7 minutes. [28] That's about 22% of all coronary stents and the unnecessary care cost Medicare alone up to $2.4 million. Rates of overuse varied widely by hospital: at some, more than 50 percent of all stents met criteria for overuse, while at others, fewer than 5 percent were unnecessary.

In all cases, the providers got paid – an economic incentive-based Tyranny of Small Decisions. But 229,000 people undertook the procedure risks without much or any likelihood of benefit because the stent was unnecessary, and everyone's health insurance premiums increased. An economic cost and tragedy for the rest of us.

Let's move from a specific to the general case and estimate the size of the overtreatment problem from a 2017 physician survey published by PLOS, an online medical journal. [29] According to physicians themselves, 20% of all medical care is unnecessary, including 22% of prescription drugs, 25% of tests and 11% of procedures. Among the most common excuses for this by the physicians were fear of malpractice and patient pressure or demands. In other words, in our post-Split healthcare system, no one pushes back sufficiently aggressively when patients want unnecessary treatment. That opens the door to our Tyranny and Tragedy.

By contrast, in a vertically integrated system where healthcare finance and service delivery are the same company, there is a brake on overtreatment; the finance arm, in its desire to keep premiums competitive, won't allow it. Unfortunately, though, today in much of America, one large hospital system typically controls 50-75% of the beds in a region, while the largest insurance carriers in a region – organizations potentially able to push back on overtreatment – typically only have about a 15 – 30% market share. This unequal playing field contributes to our unnecessary care problem; organizations incentivized to provide more care dominate.

One personal experience with overtreatment. I had a sore ankle in September 2023 that felt tight early in the morning, then loosened up during the day. I felt under time pressure to resolve the issue as I was going hiking with my kids in November, about 6 weeks in the future. I first tried rest but that didn't work. I then considered my treatment options:

---

[28] Lown Institute Hospital Index 2023, Avoiding Overuse: Coronary Stents. https://lownhospitalsindex.org/avoiding-coronary-stent-overuse/ Lown defines overuse as inserting stents in patients with a diagnosis of ischemic heart disease at least six months prior to the procedure, excluding patients with a diagnosis of unstable angina or heart attack within the past two weeks, and excluding patients who visited the emergency department over the past two weeks.

[29] https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0181970

- Option 1, see an orthopedist. That would take a couple months as orthopedists typically book weeks or months in advance. I suspected there was insufficient time to pursue this option. The orthopedist would probably (my uninformed guess here) want to run some tests, then have me return for a second visit and maybe prescribe therapy or medications (my guess again). I expected that the orthopedist would resolve my ankle pain problem but, most likely, after I returned from my hiking vacation.
- Option 2, see a physical therapist. My limited experience with PT suggested that I would visit once or twice a week for a few weeks. My experience also suggested that the therapy would work. I decided to keep this option on hold.
- Option 3, see my local chiropractor. Note here that I am not a shill for the chiropractic industry and do not understand anatomy; I'm just a commentator here. However, I like chiropractic primarily for one, virtually overwhelming reason: I can get an appointment in a day. Plus it's cheap. I had no idea if chiropractic would resolve my ankle pain problem, but I figured 'why not?'. Very low risk. I could learn quickly – in one afternoon since my chiropractor is about 15 minutes from my house – if chiropractic could help and it only cost $8.80 for a copayment. I figured it was worth the time to find out.

My chiropractor felt my ankle, gave me a couple stretches, and sent me home with 'come back if you still feel pain next week'. I did the stretches a couple times and, astonishingly to me, the pain disappeared. Problem solved. In one day. For $8.80.

Would the physical therapist or orthopedist have overtreated my problem? It certainly seems likely to me though I can't know for sure. But I feel like I maneuvered around the tyranny of their own small, incentive based decisions for my own benefit.

Excessive care through lack of high quality, randomize, comparative studies. We'll first discuss Vitamin D supplements to prevent bone fractures or extend life. Millions of Americans take vitamin D supplements and labs run 10 million vitamin D level in patients tests every year.[30] Vitamin D sales and testing has become a billion dollar industry with about 25% of Americans over age 60 taking vitamin D supplements.[31]

Though use of vitamin D supplements may make biochemical sense – the body needs vitamin D to help it absorb calcium, a mineral necessary for strong bones – a 2022 comparative study of 25,000 people with half taking the supplements and half taking a

[30] Gina Kolata, Study Finds Another Condition that Vitamin D Pills Do Not Help, New York Times, July 27, 2022

[31] Szabo, Selling American on Vitamin D, Kaiser Health News, August 20, 2018, https://www.nbcnews.com/health/health-news/selling-america-vitamin-d-reaping-profits-n902276

placebo found little-to-no benefit to the vitamin D supplements.[32] Indeed and perhaps more interesting from our perspective, that 2022 study found that 'no large randomized, controlled trials had previously tested the effects of daily supplemental vitamin D alone (without coadministered calcium) in preventing fractures in the U.S. population.'

Why were there no studies on such a widely prescribed vitamin? One answer may be that the American Clinical Laboratory Association, the trade association for the laboratory and diagnostic health industry, spent around $1 million on political lobbying annually since 2014 [33] though I don't know exactly where all this money went.

Another answer may be that the Endocrine Society – the leading organization in the fields of endocrinology and metabolism according to Wikipedia, that 'influences a wide range of policies' according to its website [34] – argues that "vitamin D deficiency is very common in all age groups" and advocated a huge expansion of vitamin D level testing in patients in the 2010s.[35] Though the Endocrine Society's financial lobbying is relatively small, only about $120,000 in 2020 for example, it plays a large role in 'helping to shape healthcare and research policy in the US and around the world' according to its website.[36]

A third answer maybe be that 'it's obvious' that vitamin D helps people, based on a simplistic, linear, biochemical analysis. 'Bones need calcium, vitamin D helps bones absorb calcium so vitamin D supplements will help bones remain strong'. If only the human body was so simple! We have an extensive history of *medical reversal* in this country; medical reversal means 'high quality comparative studies show that something that makes sense in theory does not provide patient benefit in real life'. See Ending Medical Reversal by Adam Cifu and Vinay Prasad for more on this.

I'll go out on a limb now and suggest that the financial lobbying impact of the American Clinical Laboratory Association, plus the intellectual clout of the Endocrine Society, combined with the 'obviousness' of vitamin D's benefit, supported an environment for continued vitamin D level testing in patients and supplement prescriptions, *always* to the economic benefit of the industry but *only sometimes*, if ever, to the medical benefit of patients. That's one impact of our profit motivated, private sector based medical industry post-Split.

---

[32] LeBoff et al, Supplemental Vitamin D and Incident Fractures in Midlife and Older Adults, NEJM, July 28, 2022.

[33] Open Secrets https://www.opensecrets.org/federal-lobbying/clients/summary?cycle=2022&id=D000023934

[34] https://www.endocrine.org/advocacy

[35] Szabo op cit

[36] https://www.endocrine.org/advocacy

We'll switch focus now to discuss excess care and medical spending on over-the-counter-decongestants**.** The US over-the-counter decongestant market was worth about $1.8 billion in 2023,[37] including common, over-the-counter medications such as Sudafed PE, Vicks Nyquil Sinex Nighttime Sinus Relief and Benadryl Allergy Plus Congestion. The problem with these and similar phenylephrine-based medications: they don't work. That's the unanimous conclusion of an FDA panel that reviewed several existing studies of phenylephrine-based medications in September 2023.

From our point of view, though – the impact of private sector medicine's lobbying for its own financial gain and not necessarily for patient benefit - the back story of how ineffective medications came to market and remained on the market so long is more compelling than the scientific analytics.

We begin in 1976 when the (then new) Food and Drug Administration adopted a 'safe and effective' standard for medications. [38] After an initial purge of unsafe or ineffective drugs in the 1970s, the agency's approval criterion morphed, in real life, from 'safe and effective' to 'safe' with few if any drugs were removed from the market during the ensuing 50 years due to their lack of effectiveness. The agency apparently lacked the resources to police medications as rigorously as, perhaps, it would have liked, and so focused more on product safety.

We'll jump ahead 30 years, bypassing drug reformulations and FDA oversight issues, to 2007 when two University of Florida researchers, Leslie Hendeles and Randy Hatton, filed a citizen's petition for the FDA to review various phenylephrine-based medicine studies. Hendeles and Hatton had themselves reviewed dozens of original studies and determined that over-the-counter, phenylephrine-based oral decongestants performed no better than a placebo. In other words, these medications were safe but ineffective. The FDA, in response, assembled the Non-Prescription Drug Advisory Committee (NDAC), composed of petitioners, manufacturers and the Consumer Healthcare Products Association, the industry trade group. The NDAC decided that the evidence on phenylephrine was "suggestive of efficacy" so left these drugs on the market. (I'm not sure what 'suggestive of efficacy' means, especially after years of patient utilization. 'Suggestive of efficacy' is not a standard statistical, regulatory or legal concept.)

Fast forward 8 more years and several new studies, and Hendeles and Hatton again filed a citizen's petition, this time to remove phenylephrine-based oral decongestants from the market. The FDA reviewed the newest information, this time with enhanced powers granted to it by the Coronavirus Aid, Relief, and Economic Security Act, passed

[37] Berkeley Lovelace Jr, FDA Panel Says Common Over-The-Counter Decongestant Doesn't Work, NBC News, September 12, 2023

[38] Much of this section comes from Haley Weiss, With the Decongestant Snafu, the FDA Tries Something New, Time, September 14, 2023

in 2020. Post-2020, the agency could more easily revise over-the-counter approvals and recommendations.

That brings us to September 2023 when an advisory panel to the FDA concluded that phenylephrine-based oral decongestants are ineffective, more-or-less returning to the 1976 ‘safe and effective’ standard. During those 50 years, Americans took a safe but ineffective medication thanks, in part, to weak FDA oversight (lobbying impact?) and weak regulations (lobbying impact?).

> I left out the history of Schering-Plough, since bought out by Merck and the maker of Claritin D. Their internal studies showed that phenylephrine-based oral decongestants were, in fact, ineffective. That’s why they continued making Claritin D, a prescription medication, and didn’t switch to a phenylephrine-based over the counter formulation. The Schering-Plough story suggests that the pharmaceutical industry knew of phenylephrine-based oral decongestant ineffectiveness but still promoted the medications to patients.

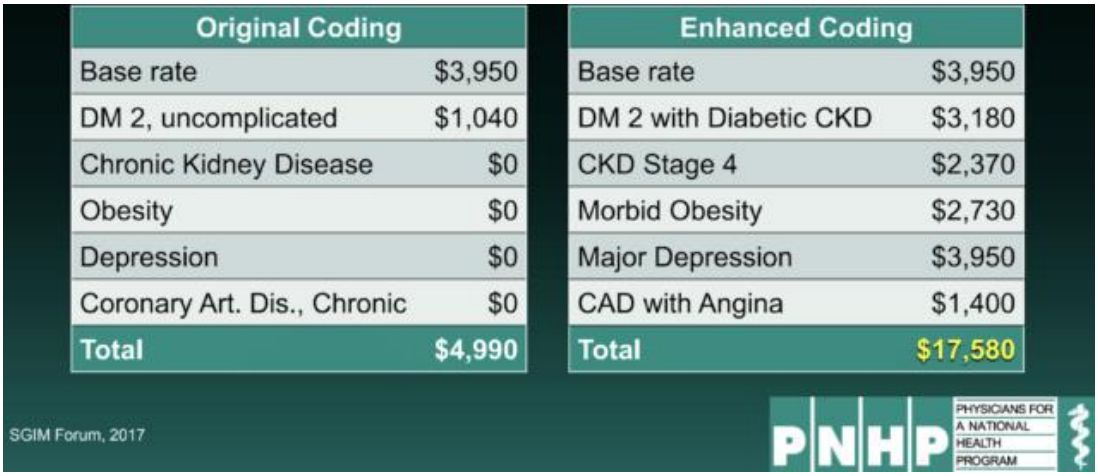
The net result of that 50 year lag, according to Hendeles and Hatton:

> Americans spend billions on drugs that contain ingredients that will not help them. That’s not just a waste of money — it could mean they are delaying appropriate treatment, which can lead to more severe illnesses.

But the OTC drug provision industry made billions thanks, in large part, to their industry lobbyists.

Excess billing. Somewhat like the excess care problems, our post-Split healthcare system allows for excess billing. In this excess billing case, patients don’t gain additional benefits – they (or their insurance carrier, which ultimately means their premiums) just pay more for the same care…at best. The excess billing problem may ultimately lead to overtreatment.

In our non-vertically integrated, post-Dallas healthcare system, providers typically bill by code. We have, in this country, thousands of codes, many subject to interpretation. The Physicians for a National Health Plan offers one example, below, showing the difference in potential billing for the same patient.



The players in our health insurance melodrama understand this, as do investors like private equity firms. Private equity firms purchased 355 physician practices between 2013 and 2016 and 578 between 2017 – 2021. Individual physician practices can have dozens or hundreds of doctors. [39]

Private equity investors seek high returns from their investments, up to 20% annually according to some estimates. Our post-Split healthcare system offers only 3 ways to accomplish this: see more patients, provide more treatments and/or bill at higher rates. PE owned firms apparently do all three, according to research published the Journal of the American Medical Association in 2022. [40] That study noted "Following a private equity acquisition, physician practices saw a 20.2 percent increase in charges per claim…and a 37.9 percent increase in new patient visits." Additionally, PE owned firms generated a 16% increase in the total number of encounters. (Encounters = lab tests, imaging, procedures).[41]

Little to none of this helps patients get healthier (personal opinion and probably an overstatement) while all benefit system participants – physicians, nurses, private equity investors, drug companies, etc - just like Andrew Dreyfus observed. This helps explain why we enjoy more healthcare spending year over year, while failing to enjoy improved outcomes as measured by increased longevity.

Medical procedure approvals. Let's turn now to a case study of spinal fusion surgery research and information dissemination to see how the Tyranny of the few can affect the well being of the Common. This comes from research published in Scientific

[39] Robert Pearl, Private Equity And The Monopolization Of Medical Care, Forbes, Feb 20, 2023

[40] Association of Private Equity Acquisition of Physician Practices With Changes in Health Care Spending and Utilization, JAMA, Sept 2, 2022.

[41] Discussion with Jane Zhu, co-author of the JAMA study and assistant professor of medicine at Oregon Health & Safety University https://www.opb.org/article/2022/09/16/what-happens-to-healthcare-spending-and-use-under-private-equity-ownership/

American[42] by two researchers, Sanjaya Kumar, Chief Medical Officer at Quantros, a healthcare analytics company, and David Nash, dean of the Jefferson School of Population Health at Thomas Jefferson University.

We'll start in the 1990s when the Federal Agency for Health Care Policy and Research (now the Agency for Healthcare Research and Quality) released findings from a five-year investigation of the effectiveness of various treatments for low back pain. Here's Kumar and Nash's summary from their Scientific American article:

> Between 1989 and 1994, an interdisciplinary Back Pain Patient Outcomes Assessment Team (BOAT) at the University of Washington Medical School in Seattle set out to determine what treatment strategies work best and for whom. Led by back expert Richard A. Deyo, MD, MPH, the team included orthopedic surgeons, primary-care physicians, physical therapists, epidemiologists and economists. Together, they examined the relative value of various diagnostic tests and surgical procedures.
>
> They conducted a comprehensive review of clinical literature on back pain. They exhaustively examined variations in the rates at which different procedures were being used to diagnose and treat back pain. Their chief finding was deeply disturbing: what physicians thought worked well for treating low back pain doesn't. The implication was that a great many standard interventions for low back pain may not be justified. And that was immensely threatening to physicians, especially surgeons who perform back operations for a living.
>
> Among the researchers' specific findings: no evidence shows that spinal-fusion surgery is superior to other surgical procedures for common spine problems, and such surgery leads to more complications, longer hospital stays and higher hospital charges than other types of back surgery.
>
> Disgruntled orthopedic surgeons and neurosurgeons reacted vigorously to the researchers' conclusion that not enough scientific evidence exists to support commonly performed back operations. The surgeons joined with Congressional critics of the Clinton health plan to attack federal funding for such research and for the agency that sponsored it. Consequently, the Agency for Healthcare Policy and Research had its budget for evaluative research slashed drastically.
>
> The back panel's guidelines were published in 1994. Since then, even though there are still no rigorous, independently funded clinical trials showing that back

[42] Kumar and Nash, 'Myth: There is a high degree of scientific certainty in modern medicine', Scientific American, March 25, 2011.

surgery is superior to less invasive treatments, surgeons continue to perform a great many spinal fusions. The number increased from about 100,000 in 1997 to 303,000 in 2006.

In 2023, twelve years after Kumar and Nash's Scientific American article, I searched for rigorous, independently funded clinical studies on back surgery. The most recent available was a 2018 summary of the evidence about spinal fusion surgery. Those researchers concluded "We found no high-quality systematic reviews and the risk of bias of the randomized controlled trials in the reviews was generally high." [43]

I also googled 'number of spinal fusion surgeries per year' and learned from various sources, that we in the US experienced 500,000 in 2011 and 1.3 million in 2021, though that later number may include a wider definition. [44] These procedures cost about $50,000 each for an annual national total of perhaps $68 billion.[45]

Since the Baylor – Dallas School System initial foray into health insurance, medical providers, suppliers, financiers and others have made Small Decisions for their own financial benefit. Many have harmed The Commons. That's the tragedy of commercial health insurance today.

[43] Harris, et al, Lumbar spine fusion, what is the evidence? Internal Medicine Journal, Dec 5, 2018

[44] iData Research 8/16/23

[45] Cost of spinal fusion surgery in the 30 biggest US cities, Becker's Spine Review, Carly Behm, Feb 21, 2022 https://www.beckersspine.com/spine/53684-cost-of-lumbar-spinal-fusion-in-the-30-biggest-us-cities.html . Boston's cost was $50,150

Employer Based Health Insurance Features and Issues

The US is the only advanced industrialized country to finance medical care primarily through employment. Most other countries use employer based financing either to supplement a national healthcare system (e.g. the United Kingdom) or ban it from competing with the national system (Canada).

About 160 million Americans receive health insurance from work. That's about half of our population. The other half either receives health insurance through a government program – Medicare, Medicaid for example – from a state exchange or is uninsured. About 30 million Americans are medically uninsured.

Employers who offer health insurance worry about the costs. They need to balance their firm's financial health with their employee's medical health so provide plans that are good enough to comply with the various state and federal regulations and provide satisfactory employee coverage without costing too much. It's a delicate and confusing balance.

Employees should also worry about their employer's health insurance costs but too few actually do. Most employees think health insurance is a 'benefit' – a freebie that the employers offer. Labor economists virtually universally reject this assumption. They claim that the actual cost of each employee is the total of salary plus benefits, so if the employer pays less in benefits, the employee will receive more in salary.

In other words, the employee actually pays for employer-based health insurance via foregone wages.

Employer based health insurance has set the paradigm of healthcare financing in this country. We rely on 1 year long insurance policies to finance medical care even though 70% of healthcare spending goes to chronic disease treatment, i.e. treatments that take longer than 1 year. This sets up a fundamental inefficiency, treating long term problems with short term financing, a mismatch resulting in higher costs and, apparently, poorer outcomes than optimal.

Other healthcare financing systems, most notably Medicare, follow this one year long policy format. I'll discuss this in more detail below.

Three structural problems with employer based healthcare financing
#1: Moral hazard

Our employer based system finances all medical care with **insurance** rather than **payment plans** probably for historical reasons that we'll discuss shortly.

This confuses *insurance* (protection against financial harm caused by random events) with financing normal, routine and expected medical events like flu shots and knee replacements.

Compare health insurance to auto insurance. Auto insurance pays for *un*expected events, like crashes; it doesn't pay for expected events like oil changes, tire rotations or transmission rebuilds. Yet we expect health insurance to cover all medical events, from the most routine and predictable to the most random and unpredictable. This leads to enormous inefficiencies because, many argue, insurance is the wrong financing mechanism for routine medical events.

- Insurance pools risk inefficiently based on timing; those *not having* medical events this year pay for those having.
- This suppresses any market mechanisms from pooling more efficiently and developing better, more targeted, more actuarially based medical financing products - orthopedic payment plans for example, or pediatric immunization payment plans.

  We can imagine lots of medical payment programs, underwritten and priced for individuals or banded for groups. Middle aged men might buy 5 or 10 year orthopedic and urologic plans but not birthing; younger women the opposite.

  This kind of program pools need more efficiently than blanket insurance plans that cover every possible medical situation, for all people, that might occur this year. 'Insurance' then provides a safety net for the unexpected or random events not covered by specific payment plans.[46]

A fundamental problem using insurance to finance all medical activities is **moral hazard**. Insurance programs *always* face concerns about moral hazard. Moral hazard is the phenomenon in which people get more care than they need because it appears free to them. Insurance financing that includes this moral hazard component is a great foundation for a healthcare jobs program but a poor one for an efficient medical care financing system.

The moral hazard concept originated when home fire insurance was developed centuries ago. Underwriters were concerned that people with 'poor moral character' would burn their houses to collect the insurance proceeds then rebuild a less expensive house and pocket the difference. This translates in the health insurance arena to people having tests and treatments because –why not? It's free to me and may offer some benefits.

Medical care providers understand this issue and can generate income from it: 'let's send you for another test just to rule something out. Don't worry – it's covered by insurance' and medical testing and treatment industries develop. Dr. Sandeep Jauhar, Director of the Heart Failure Program at Long Island Jewish Medical Center, has written

[46] Regina Herzlinger has written extensively and creatively about this type of program. See especially her book Who Killed Healthcare.

eloquently and painfully about this. Consider these various quotes from his 2014 book Doctored:

> Bob and Joe and Dave have an unwritten agreement to call one another when patient issues arise outside their scope of expertise. If Bob, the nephrologist, sees a patient, he finds a cardiac and a gastrointestinal issue and consults the other two specialists and vice versa…a mutual scratching of backs…**Insurance companies can restrict medications, tests and payments. But they still cannot tell us who or when we can ask for help.** (page 97, emphasis added)
>
> A large percentage of healthcare cost is a consequence of induced demand – that is, physicians persuading patients to consume services that they would not have chosen if they were better educated. (page 107)
>
> [Describing one particular physician] …he was doing a plethora of tests – eye exams, audiometry, pulmonary function tests, even Holter monitoring – to generate revenue … he avoided the high-risk cases… 'Those we would send to a cardiologist' …[and, quoting a gastroenterologist] 'If a doctor doesn't do excess testing, forget it, he isn't going to be able to live.' (page 167)

Dr. Jauhar's unsettling conclusion about the impact of moral hazard:

> In our healthcare system, if you have a slew of physicians and a willing patient, almost any sort of terrible excess can occur. (page 94)

Others have, of course, also written expansively about the impact of moral hazard on our healthcare system. My point in this discussion: by relying on insurance to finance all aspects of healthcare, the employer based model exacerbates, rather than ameliorates, this problem. By basing our entire healthcare financing system on and around the employer model, the moral hazard problems permeate all aspects of American healthcare financing, creating more healthcare jobs and less healthcare value.

While we can't calculate an exact cost of moral hazard in our healthcare system, credible research suggests that 30% + of all medical spending is wasted on unnecessary care. That's generally estimated at about $700+ billion annually or $2500+ per employer based policy. The Dartmouth researchers primarily responsible for that estimate, though, are quick to note that we 'view these as an underestimate given the potential savings even in low cost regions' [47] meaning that even they have no real solid idea how much moral hazard exists in our system.

But they and others admit that it's a lot.

---

[47] Dartmouth Atlas of Healthcare, Reflections on Variation, answer to the question 'The Atlas is often cited as a source for the estimate that 30% of the nation's spending is unnecessary --- what is the evidence? http://www.dartmouthatlas.org/keyissues/issue.aspx?con=1338

A very lot.

Structural problem #2: Disconnecting payers from users

Payers in the employer based model are employers, often acting through their benefits department. Payers decide what network size employees want, what deductible levels, what drugs to include in the formulary and what copayments to have. This is particularly true in small companies covering the bulk of American workers that may offer only 1 policy to all employees.

Consider the impact of payer's decisions. A company opting for a wide provider network decides that each employee would prefer *paying more for health insurance* to *having more disposable income available* (and using a smaller network).

Or a company opting for a smaller network decides that employees prefer *more disposable income* to *having the most expensive doctors and hospitals available in-network.*

Employees, though, are the consumers and each may seek different things from our healthcare financing system. One may want higher deductibles or lower, wider networks or smaller, bigger drug formularies or not. Each facing his or her own specific medical issues can reasonably have his or her own set of preferences.

We call this 'consumer sovereignty' meaning that the most efficient economic distribution system is one in which consumers express their desires through purchases. We have seen this work quite effectively in other markets for hundreds of years.

Take the grocery market for example. A typical supermarket has thousands of products available because some people like expensive cuts of meat while others are vegetarians. Some people like ice cream while others are lactose intolerant. Some people like rye bread, others white bread and still others prefer bagels. And so on, for canned foods, soups, fruit and many other food products.

Our food distribution system is 'efficient', or so goes the argument, because individual consumers, casting their own dollar-votes, decide which products should be available and how much shelf space stores should allocate to each product. As consumers demand more soup, the store supplies more soup. Ditto for apples, mangoes and bread.

Imagine the impact on our food choices if these decisions were made by your employer! 'Apples are good for my employees, so stock a lot. Cut down on cookies and fatty meats. And, since more and more people are lactose intolerant, switch to carrying more skim milk.' (As if your employer had any interest in making those decisions. Your employer wants to make and sell widgets, not decide what you should eat. Hmmm, sounds like healthcare, doesn't it?)

Restrictions on consumer sovereignty lead to higher prices, less choice and sometimes poorer quality. Would apple producers focus as much energy on their product quality if they knew that all stores had to buy more apples from them? Maybe – or maybe they'd focus more on quantity and price.

In the employer based health insurance model, consumers have far less sovereignty than many would like, since benefits administrators make many of their key consumption decisions. But remember the economic axiom: the more consumer sovereignty, the more efficiency. And vice versa.

Structural Problem #3: One year long policies

Some 70% of healthcare expenditures go toward chronic, long term and on-going medical care as opposed to episodic, acute care. A chronic condition is, for example diabetes and an on-going care example might be post-operative cancer treatment. Dozens more examples exist. The best outcomes result from continuity of treatment from the same provider. Medically, thus, *long term financing programs* tend to generate the best outcomes, generally at the lowest costs since care discontinuities can lead to errors, which add treatment costs.

Employers, however, oppose funding multi-year health insurance policies. Business conditions may change they reason, their employee census may change, prices may fall – why encumber themselves with long term liabilities? Employers like 1 year long policies so they can change the program if business conditions warrant.

This creates a conflict between *employee medical needs* and the *employer's business considerations*. We have, nationally, adopted the employer's position as the basis of our healthcare financing system, not the medical need position. Financing medicine based on anything other than medical concerns adds inefficiencies (costs) to the system without any related benefits or value increases.

The employer financing model forces health insurance carriers to compete on short term medical cost controls rather than long term patient outcomes. I'll explain how all this works and some impacts later in this chapter.

These three structural problems – financing routine medical care through insurance, disconnecting payers from users and embracing 1 year health insurance plans - lead to an inefficient system with skewed incentives. Good for healthcare jobs growth but bad for system value creation.

But that's what we get with employer based financing as the core of our national healthcare financing system.

Three consequences of employer based health insurance

Uwe Reinhardt, professor of healthcare economics at Princeton, suggests 3 consequences of placing employer based health insurance at the center of healthcare financing. [48]

First, it is tremendously expensive. In 2021, for example, the average family health insurance annual premium was $22,221 [49] up about $17,000 from $4,969 in 2011.[50] This compares to a median annual family income in 2021 of about $79,900. That's 28% of the average annual family income going to health insurance. Under what definition of 'affordable' does this make any sense?

Reinhardt wonders how any employer who finances employee healthcare, carrier that designs plans or broker who implements benefit programs can take pride in his/her work product. So do I.

Second, having employment at the center of our healthcare financing system requires lots of 'fill in' programs for people unable to obtain employer based insurance. Each of those programs – Medicare and Medicaid, for example, or SCHIP – develops their own regulations, licensure requirement, codes and prices resulting in overlapping and confusing payment categories.

We have, as a result:

- One healthcare system for fulltime, employed people. This system has its own access rules, reporting rules, prices and payment rules.
- A second healthcare system for elderly people, with its own (different) access rules, reporting rules, prices and payment rules.
- A third healthcare system for very poor, unemployed people who (for lots of bureaucratic and political reasons but no medical ones) must *also* be either i children, ii blind or disabled, iii elderly, iv mentally ill, v pregnant or vi mothers. [51] This system, as the two previously mentioned, also has its own access rules, reporting rules, prices and payment rules
- A fourth healthcare system for slightly poor, partly employed people (we sometimes call this 'non-group', a financial distinction but not a medical one)
- A fifth system for children not otherwise accounted for

[48] This section based on Reinhardt's lecture at the Pioneer Institute in Boston, 2014. I updated the premium numbers in this text but his core argument remains valid.

[49] KFF.org 2021 Employer Health Benefits Survey

[50] How much does health insurance cost, Nov 2, 2011, eHealth news release

[51] Ezekiel Emanuel makes this point in Redefining American Healthcare, page 47

- A sixth system for military veterans, but only if they're also either old or accessing medical care as a result of combat injuries, or both, and finally
- A seventh system for people with kidney disease, provided it's end-stage.[52]

Inefficient and irrational are two polite ways to summarize this chaos: nuts might be more appropriate. Having all these overlapping, irrational categories creates confusion and complexity that makes our system far less efficient and effective than we would like or hope for, leading to more jobs, higher costs and, unfortunately, poorer outcomes than patients would hope for.

I wonder if that's the system goal.

These different categories exist, again, because of the employer basis of healthcare financing. We needed to develop all these programs to address groups left out of the employer coverage model.

And **third**, having all these different categories has led to different prices for the same service. [53]

- The **List Price** exists though is rarely paid. It's reserved for rich foreigners and uninsured Americans. It's the highest price hospitals charge.
- The **Medicare rate**, completely transparent, is stipulated by Medicare. It's generally about 80% of hospital costs, meaning hospitals must overbill some other category of patients to remain financially solvent.
- The **Commercial Insurance rate**, higher than Medicare and lower than List Price, varies by carrier based on their market clout and negotiating skills. It tends to run about $135% of hospital costs though this can vary significantly.

  One reason for the high price and variation: market clout. A carrier with 8% of the market generally negotiates relatively ineffectively with a hospital network that controls 60% of the beds.
- The **Usual and Customary rate** is the rate hospitals charge carriers with which they don't have a contract – a Colorado hospital that treats Florida insureds who injures themselves while skiing for example.
- The **Medicaid rate** is typically the hospital's lowest rate, often quoted as a percentage of Medicare's rate.

---

[52] We also have the Indian Healthcare System which, you'll be pleased to read, is funded under the Indian Healthcare Improvement Act, signed by President Obama in 2010 and which is included in the Affordable Care Act. Probably others too, but that falls outside my area of expertise.

[53] This section comes from Ezekiel Emanuel's book Reinventing American Healthcare, pages 72 -76. It follows from Reinhardt's analysis.

- The **Actual Cost** of providing the service is generally unknown. Many medical professionals interact with each patient, requiring detailed time-and-motion studies which are expensive to produce.

Note that in other – efficient – parts of our economy, the service provider determines his/her price for the service and then sells it to anyone who will buy with, perhaps, some quantity discounts to account for scale. But in medical care, the same service varies in price by patient and the same patient can switch from category to category, thus inducing different prices from the same providers for the same care. See why I suggested this is nuts?

This huge, complex, irrational and inefficient system exists, again, because of the employer centric structure of our healthcare financing system.

Two problems that employer based health insurance fails to address
#1: Unnecessary Care

Unnecessary care, defined as care that does not improve patient health, is the largest single category of medical spending in this country. Credible estimates, as from the Dartmouth Atlas of Healthcare and Dartmouth Institute for Health Policy, suggest that up to about 1/3 of all healthcare spending or some $700 billion annually is unnecessary. I think this a low estimate, but at 30% of medical spending, it trumps

- Heart disease, about 10% of medical spending
- Diabetes and cancer, about 5% of medical spending each.

In fact, according to Jonathan Bush, founder and CEO of Athenahealth, 'unnecessary care is part of the hospital business model'. [54]

The interesting question for this section: who, in the employer financing model, tackles unnecessary care as a function of his/her job?

- **Does the benefits administrator care?**

  Probably not. The benefits administrator generally wants to keep premium inflation around 'trend', the industry definition of healthcare inflation.

  If his/her company's premiums inflate at trend, then he or she can take a CYA approach: 'I did my job. Our premiums reflect trend.'

  If his/her company's premiums inflate faster than trend, then alter plan designs, generally by increasing deductibles and copayments and shrinking the provider network.

[54] Jonathan Bush, Where Does It Hurt?

Engaging with carriers and providers to reduce unnecessary care is time consuming, a task for which the benefits administrator probably doesn't get paid and is probably ill-equipped. It will likely be an unsuccessful effort anyway. That's why most benefits people tend to take the CYA approach and settle for the 'we're at trend' justification for mediocrity.

- **Does the CFO care?**

  Again, probably not. The CFO is busy, responsible for the company's financial health and less interested in the internal operations of a hospital. As long as premiums inflate at an 'appropriate' rate, then the CFO will focus on his/her company's core business, making widgets for example, and generate profit on those.

  CFO's lacks both the time and expertise to work with doctors and hospitals on reducing unnecessary care. A huge company CFO might have the time and interest to work with a select group of providers on this issue. But hospitals that engage with this particular large company may well then turn around and bill other, smaller companies more to make up the difference.

- **Does the employer care, especially the small and mid-sized ones?**

  Again, probably not. Most economists argue that employers simply reduce wage increases to fund health premiums. (See below). If premiums rise quickly, wages rise more slowly.

  The employer corporation doesn't care – economically – if it pays employees wages or premiums. It's only concerned with the total employee costs.

#2: Underfunded Social Programs

Among developed countries, the US has the highest rates of diabetes, sexually transmitted diseases, teen pregnancy and auto mortality. We also have the second highest rates of heart and lung disease and lose more years of life before age 50 to drug and alcohol abuse. [55]

Are sexually transmitted disease and teen pregnancy the *employer's* problem? The patients typically don't work for the employer but the employer pays for treatments through 'trend'.

We know that social and behavioral factors affect more than

- 70% of colon cancer and strokes.
- 80% of coronary heart disease

[55] For Americans Under 50, Stark Findings on Health, Tavernise, NY Times, Jan 9, 2013

- 90% of adult on-set diabetes, and
- Probably most leg amputations (we lead the developed world)

But the underlying social and behavioral factors exacerbating these problems are not addressed by employer based health insurance. These are 'social' problems, appropriate for some government agency or non-profit to address – or so believe many employers and benefits administrators.

Perhaps as a result, we spend far less on social determinants of health (housing and rent subsidies, training programs for poorly educated or unemployed folks, disability cash benefits and social services in general) and far more on medical treatments after someone gets sick than do most other developed countries.

In fact, though we're #1 in medical spending per capita in the world, we're #13 in 'medical and social spending' combined. We have the ratios reversed from most others. The OECD average is about 2/3 of combined 'medical and social spending' going to social and about 1/3 going to medical; we're the opposite, joining only Korea and Japan as spending the majority of 'medical and social' on medical. [56]

This situation developed largely because employers lobbied more successfully for health insurance premium tax breaks than did social service agencies for funding. (More on this below when we discuss the history of employer based health insurance.)

How well do employers negotiate for their employees?

In 1964, the average wage in this country was $2.53/hour and the average health expenditure $197 per person per year, requiring the average person to work about 78 hours (2 weeks) to pay for healthcare. [57] Divide $197 by $2.53 to see this.

In 2019, the last year before Covid, the average wage had risen to $22.98 / hour, healthcare cost to about $11,500 per person, requiring the average person to work 500 hours (12.5 weeks) to pay for healthcare.[58]

This strikes many as a pretty poor track record. One wonders if individuals, negotiating for their own policies, might have done better than employers and brokers working together. [59]

---

[56] See The American Healthcare Paradox by Bradley and Taylor for more on this. I only summarized their research here.

[57] This example comes from Philip Longman's excellent book on the Veteran's Administration Healthcare system, Best Care Anywhere

[58] Wage estimates from the Bureau of Labor Statistics 'Usual Weekly Earnings of Wage and Salary Workers, Third Quarter 2019'

[59] See in particular David Goldhill's Catastrophic Care. Philip Longman compares cost inflation in the Veteran's Healthcare Administration system to the employer based system in his book Best Care

‘But my employer pays 75% of my premiums’

This misconception pervades the employer based health insurance model. Let me explain what most people believe first, and then show the real costs. [60]

Consider Mary, a single woman who earns $35,000 a year. In this hypothetical example, the company’s single premium is $649/month ($7791 annually) of which Mary pays 27% or $2112 per year. She also pays a $250 annual deductible and has 4 office visits at $25 each.

Mary thinks her healthcare costs about $2462, or roughly 7% of salary. Not too bad.

There’s only one problem with this analysis: it’s completely wrong. Not even close to correct.

Here’s what Mary actually pays:

- The entire **$7791** premium in foregone wages. Remember that her employer doesn’t care if Mary receives compensation as salary or benefits. The employer only cares about the total annual cost of employing Mary.
- $1276 in state taxes at a 3.6% state tax rate. Since states average spending about 10% of their budgets on healthcare costs for employees and Medicaid, Mary pays about **$128** in healthcare costs to the state.
- $3827 in Federal taxes, about 11% of her income. Since 20% of the federal budget goes to healthcare, Mary pays another **$765** here.
- Medicare taxes (1.45%) plus the employer match (foregone wages again), another **$1015**.

Mary actually spends about **$10,000** on healthcare annually, not $2462. See why all the healthcare system inefficiencies we’ve been discussing really matter?

Part 2: How Employer Based Health Insurance Developed

An historical accident

Let’s consider two historical themes to understand both why we have an employer-centric healthcare financing model and why it works so poorly.

First, remember that healthcare and social services evolved independently and differently. Healthcare was a profitable industry, supported by powerful special interests;

Anywhere. The VHA did a better job controlling costs while, according to Longman, generating better outcomes.

[60] This analysis comes from David Goldhill’s ‘Catastrophic Care’, chapter 2 ‘The Hidden Beast’. I’ve adjusted the numbers slightly and changed the woman’s name to Mary, though unclear exactly why.

social services were not but, but rather were disorganized, politically weak and stigmatized for helping the 'undeserving'. [61]

Consider this story from Bradley and Taylor's book The American Healthcare Paradox about Joe, a 28 year old, very low income diabetic: [62]

- His poor diet, including very little fresh food, exacerbates his condition
- He wears old, holey shoes that keep his feet constantly damp.
- His doctor admonishes him to eat better, take his insulin and keep his feet dry, but he can't afford to do these things often enough
- Last year he had 2 toes removed costing $7000 and next year likely two more for $14,000
- His doctor discussed the possibility of a foot amputation ($18,000) plus rehab (total medical costs about $30,000), plus a wheelchair ($1000). This would make finding a job far more difficult, reducing Joe's chance of earning much income and consequently paying taxes (more or less paying for the social welfare of others). A leg amputation might permanently relegate him to surviving on government benefits, not a job.

Perhaps the most ironic or depressing part of this story: new shoes cost $75 and an apple costs $1 per day. Our (underfunded, disorganized) social services can't manage these minimal costs while our (well funded, powerful) medical system racks up tens of thousands in fees by implementing medical solutions to social problems.

Second, our healthcare financing system evolved inefficiently, from a vertically integrated 'financing + care provision' system to a non-vertically integrated one.

- Vertical integration means medical care and medical financing are the same entity with salaried physicians. Both the financing arm and medical care arm work together to generate the best patient outcomes at the lowest cost, at least in theory.

  'Managed competition' is competition among vertically integrated healthcare providers. Those generating the best outcomes at the lowest costs will gain customers; those operating at higher costs and generating poorer outcomes will lose. [63]

[61] See Bradley and Taylor, The American Healthcare Paradox for a longer explanation of this point.

[62] Ibid. page 1

[63] Alain Enthoven of Stanford University, perhaps our greatest managed care theorists and proponent, has written widely about this which is somewhat outside the scope of this particular chapter. See his

Vertically integrated healthcare entities compete with each other on *value*: outcomes per dollar spent, since they control their own income (i.e. the premiums they charge customers.)

- A 'non-vertically integrated system' has separate companies handling financing and medical care. Today we call financing companies 'insurance carriers' and medical care provision companies 'providers', generally hospitals and physician groups.

  In this system, financiers always want to pay service providers less and service providers always want to bill more. The relationship between the two is 'war' - according to Atul Gawande, professor at Harvard Medical School and staff writer for the New Yorker – 'every step of the way'. [64]

  In a non-vertically integrated system, carriers and hospitals argue over payment formulas since hospitals do not control premiums. A very different focus from the vertically integrated model above.

How Employer Based Healthcare Started

(A version of this section appeared previously in this text. Readers may wish to skim the next 10 pages. GF)

The myth – or perhaps truth - is that it started in Dallas around 1929 as a reaction to the stock market crash and financial meltdown. [65] The business problem for Baylor University Hospital in Dallas was that it didn't have enough money to pay its bills.

Prior to the stock market cash, hospitals raised funds in two ways. First they had paying customers who were billed for services rendered - a fairly modest percentage of the population because most people didn't have a lot of money. Second, the community chest, the charitable organizations - the wealthy would donate to the hospital because it was a good place to donate your extra money. Charity made you feel good and was good for the community.

But with the stock market crash, the wealthy didn't have as much money to donate, unemployment increased (reducing the number of patients able to pay), and the hospital faced a difficult financial landscape. So Baylor University Hospital made a deal with the Dallas School System. They said, "School system, you raise money from taxes. You

seminal article The History and Principles of Managed Competition for more. http://elsa.berkeley.edu/pub/users/webfac/held/157_VC2.pdf

[64] See Gawande's second book 'Better', chapter entitled Piecework

[65] This suggestion comes from Richmond and Fein, The Healthcare Mess, page 30.

always have money. Pay us $.50 every other week, $.25 a week, for each of your employees and when they get sick, they come to us and we'll take care of them." Employer based health insurance arrives.

A few comments about this.

First, it's a nice deal. It's a nice deal for the hospital because they stay in business. They don't have to worry about going out of business. They don't have to worry about turning people away as long as they get the numbers right (which apparently they did), $.50 per employee every other week. That was the true cost. The school system payments protected the hospital's cash flow, so the hospital stayed in business.

Second, this was very efficient. The hospital signs one contract with one employer group and received back enough money to stay in business. Sweet. That's a pretty good incentive to look for more large employer groups.

Third, there was no prevention or provider choice, but theoretically the teachers and other employees of the school system were happy because they got medical care essentially for free.

Fourth, this was for hospitalization only. There was no outpatient doctor's coverage.

Fifth, community rating. The Dallas School System paid $.50 per person every other week, regardless of individual medical status. There was no medical underwriting.

Sixth, there were no quality controls, no outcome based incentives, no holdbacks for poor hospital performance. Health insurance began simply to save the financial health of the hospital.

This was a vertically integrated system, almost textbook variety. And it exhibited the classic flaw of vertically integrated healthcare system: lack of consumer choice. As developed initially with Baylor University Hospital, the Dallas school system employees could only go to one hospital. This has advantages and disadvantages.

Advantages:

1. Lower Costs

2. Reasonable medical care from a small number of 'in-network' providers

Disadvantage:

1. Little provider choice as few hospitals 'in-network'

The Baylor Hospital / Dallas School System deal worked so well that other hospitals soon copied it. Different hospitals looked for different large employers, offering the same kind of deal. Large manufacturers, the Dallas Morning News, and others. What problem begins to arise?

The Choice Problem

Consumers (school system employees or manufacturing workers, for example) wanted to chose among various hospitals. 'What do I know about Baylor University Hospital? I only know one thing. I know someone who went there and didn't get good treatment, so I want to go somewhere else.' Someone always knows of someone else who had a negative experience there. So you want to go somewhere else - consumers want choice.

Remember vertical integration, where finance and service provision are the same company? Once you introduce choice, then you have one group handling finance and another handling service provision. You have a split and you lost vertical integration. (More on this coming up soon.)

Back to Dallas. The hospitals are cranking along with the employer based financing model. They're very happy. They're making money. And then one of the Blues brothers comes along – Cross or Shield, I don't remember which – and offers to provide financing for lots of Dallas hospitals. 'Dallas teachers' they might have said, 'you can sign up with Baylor University Hospital only, or, for just a little more money, sign up with us and we'll give you the choice of many hospitals in Dallas. We contract with lots of hospitals. We have a large network.' Sounds pretty appealing, right?

Doctors looked at this and said, "Hey, we want in on this too." They organized a second Blues brother so doctors could get paid because the same depression was affecting all medical providers, both hospitals and physicians. Blue Cross for your doctor's bills and Blue Shield for your hospital bills (or maybe the other way around. Wikipedia didn't say when I looked it up.) Both organized to protect provider incomes.

And both – conceptually, if not in real life – competed with vertically integrated hospitals, like Baylor University Hospital was at the beginning with the Dallas School System.

The Blues developed a couple of very clever ideas in the 1930s. First, from a marketing point of view, they offered this very attractive provider choice option. Very appealing to many consumers.

Second, they began searching for the healthiest subscribers. An interesting business idea: if they could find the healthiest people, they could offer lower priced policies and gain a competitive edge vs. their vertically integrated competitors signing up large employers at a fixed price per person.

Underwriting vs. Community Rating

The Blues figured that they would underwrite better than the competition so people would join them because their premiums would be a little bit lower. The community rating folks faced higher premiums because they took all employees.

Underwriting serves the economic interests of the carriers. It doesn't improve healthcare outcomes. It doesn't improve the healthcare system. It doesn't differentiate medical quality. It doesn't create patient value. It only makes one carrier lower cost than another carrier by having sick people pay more. The healthy pay less, the sick pay more but there's no value created: the total medical costs remain the same. But some people win and others lose.

This financing system has little to do with getting people healthy, or creating value. That was not its intention. It was designed to protect physician and hospital income. That was the original Baylor idea. Then carriers came along to make a profit on consumer demand for choice. The demand for choice leads to the Split.

The Split and the Provider Payment Problem

Once you split finance from service provision, you have a wider consumer choice and you have to figure out how to pay doctors and hospitals. We're still, today, trying to get this one right.

The original and still most popular payment mechanism is fee-for-service. The doctor gets paid $100 for treating each broken arm and $350 for each rotator cuff surgery.

As soon as you split finance and service provision there's an incentive on me, the doctor, to do more treatments. You're paying me by treatments, so I will do more treatments. 'That guy's got a sore shoulder that's probably due to a rotator cuff tear, so I'll operate on his rotator cuff.' Fee for service provides an incentive for doctors to do more procedures and hospitals to admit more people.

You, on the other hand, the carrier, want to limit the number of treatments. You want to ask if I have to do that procedure. We fight all the time. My clinical judgment (influenced, perhaps – at least psychologically – by the fee-for-service payment formula) vs. your financial judgment (influenced, perhaps – at least psychologically – by the same fee-for-service formula. You don't really trust my clinical judgment.) That's the conflict between healthcare payers and medical service providers.

Let's remember where we are. We're still in the 1930's and we're talking about the growth of the employer based system. Little cost control. We've developed the split between finance and service provision. Finance people will say, "You really don't need to do that procedure," and the service provider says, "Yes I do. Yes I do."

The Problem of Measurement in Fee for Service Medicine

There's a related problem in fee-for-service medicine – the problem of measurement. How well does a particular physician treat his/her patients? How well does a particular hospital perform certain surgical procedures? How well does a particular treatment work?

These are enormously difficult questions to answer. We do not even today have good measurement criteria or good data – and we had even poorer criteria and data in the 1930s. The data that we can measure might not be the most important. Remember that our healthcare goal is to extend life or improve life quality. We do not yet fully understand which treatments today will lead to longer lives in 30 or 40 years. Nor do we fully understand which treatment qualities will lead to long term life quality improvements.

We can only measure some aspects of medical treatments – surgical mortality rates, hospital infection rates, 30-day hospital readmission rates, for example. These may not always be the most significant outcome data, though they may be useful for some patients.

Whose interests are served by measuring or publicizing this information? Not the providers. They get paid fee-for-service for the *quantity* of medical care, not the *quality*. Publicizing outcome data may harm them economically. Thirty day hospital readmission rates may show that Hospital A provides poorer patient treatments than Hospital B. Or that Surgeon Z has a higher mortality rate than Surgeon X.

The risks of either inappropriate or unflattering outcome data becoming public were so great during the inception of our employer based system that providers fought against its release. The fee-for-service system suited their interests far better than any outcome based payment mechanism.

The fee-for-service / component payment structure suited their interests in a different way also. Absent good data collection, each physician – responsible only for his/her specific tasks – can argue 'I did my job correctly. The fault lies elsewhere.' Physicians act as subcontractors, narrowly defining their individual tasks, rather than as general contractors responsible for the life of the patient. This follows directly from payment systems that developed from the Split between finance and service delivery.

Fee-for-service / component financing serves provider interests, is inflationary and expensive, and is not designed to improve patient health. It's only designed to reward providers, which it did quite well historically. We, in the US, have traditionally performed more procedures / 1000 of population than similar developed countries around the world. Things today like spinal fusion surgery, hip replacements, knee replacements, coronary bypass surgeries. The Split between finance and service provision led us down this road.

The Impact of World War II

Let's continue with our historical / conceptual history of employer based health insurance.

During World War II, or perhaps as a function of it, more and more people got insured, most notably people in the military. They continued with insurance coverage after the

war. In the relatively short post-war period we get lots more Americans covered for hospitalization insurance.

1942: 10 million hospital insurance / health insurance subscribers

1946: 32 million

1951: 77 million [66]

World War II plays an important role in our story for three main reasons.

First, the soldiers who received health coverage while in the military wanted to continue with it afterward. They saw the advantages of having health coverage. They married and wanted their families to receive coverage also. This created demand for health insurance.

Second, our wartime economy devoted significant resources to medical technology improvements. Perhaps most significant was the introduction of sulfa drugs to combat infections. These helped turn hospitals from infection breeding institutions into patient treatment and improvement centers. Other technological innovations followed. These improved the quality of medical care, or the supply.

Third, the Federal wartime wage and price freezes fostered the development of 'fringe benefits' such as health insurance. These reduced the cost of insurance to the individual consumer and further helped stimulate demand. It's a pretty interesting story just how these developed.

The government decided during the War to freeze wages and prices - to avoid domestic economic difficulties and help focus our economy on war production. Employers could not raise wages to attract new workers or to reward their best employees. The government controlled this aspect of employee compensation very tightly.

But the government allowed employers to offer fringe benefits such as health insurance. This was how employers could attract new talent and retain their current employees. The concept of 'fringe' meant 'outside the normal compensation' and 'benefits' meant 'advantages of working here'. Employers couldn't simply raise wages – the traditional way of attracting labor – as that was illegal during the war. Fringe benefits were simply a mechanism to get around the wartime wage freeze.

As we grew in 9 years from having 10 million to 77 million insurance subscribers in this country, the health insurance industry developed and gained political power. It lobbied Congress for favorable legislation. It applied political pressure. It acted, in short, just like all other powerful industrial groups.

The Hill Burton Act and IRS decisions strengthen hospitals

[66] Richmond and Fein, The Health Care Mess pages 30 - 38

Congress, just after World War II, passed the Hill Burton Act to fund hospital expansion. This increased the number of hospital beds in this country by about 40%, from 3.2 per 1000 people to 4.5. It also made hospitals the centerpiece of our medical care system; the travelling doctor who made house calls started to disappear.

Shortly thereafter, in 1953, the IRS decided that fringe benefits were exempt from federal income tax: those became *tax deductible to the employer* but *not income taxable to the employee.* **This was essentially a government subsidy for hospital care,** since that's what health insurance ultimately financed. The government stimulated sales of employer based health insurance by subsidizing the price through the tax exemption.

To understand how this is a subsidy, let's look at both the employer and employee tax situations. The employer buys a $100 insurance policy for an employee, and, prior to the IRS regs, pays corporate income tax on the $100 ---- let's say that was 50%. So the employer's total cost was $150: $100 for the policy and $50 for the income tax on that $100.

By making the payment tax deductible to the employer – that means by foregoing the corporate income tax on that $100 - the government reduced the cost. Health insurance now only costs the employer $50; the employer takes a 50% tax deduction on the $100 payment. That's a big savings compared to the previous $150 expense.

The employee received this $100 employment benefit. Prior to the IRS regulatory change, he/she would have paid their marginal tax rate on this income --- let's say 30%. By making this tax free to the employee – that means by foregoing the personal income tax on the $100 – the government contributed $30. In other words, the government subsidized the employee who received health insurance by $30.

An interesting note from the employee point of view. $100 in benefits is more valuable than $100 in salary. The $100 in salary is taxable, so nets only $70. Remember our discussion above that 'My employer pays 75% of my premium.' I suggested that the employer doesn't care if he/she pays salary or benefits – the employer only cares about the total cost.

But the employee, according to many economists, does care. The employee prefers benefits since they're not taxed. The employee's foregone salary, according to this argument, is more valuable than benefits since it's not taxed. (I'm not sure I buy this argument completely but it does give me pause to consider.)

This subsidy for health insurance was so effective that the rate of Americans with hospital coverage skyrocketed. In the mid-1950s, about 45% of Americans had hospital

insurance. By 1963, 77% had hospital coverage, and an additional 50% had some form of physician coverage.[67]

The favorable tax treatment of fringe benefits led to healthcare inflation from higher *hospital* prices – because more people could afford to use hospitals.

Over this time period two strange incentives evolved in our healthcare marketplace: an *excessive hospitalization* incentive and an incentive to *cover the unemployed*. These two conditions merged in the late 1960s and 1970s. Their combined effect became clear by the 1980s as our health insurance costs skyrocketed and our employer based financing model became even more firmly entrenched.

Excessive Hospitalization Incentives

By the mid-1960s over three quarters of Americans had hospitalization insurance, paid for by employers and subsidized by the government. Hospitalizations became essentially free to patients, creating, in the words of Harvard Professors Richmond and Fein a 'not-so-subtle perverse incentive to hospitalize individuals.'

This was the case even for diagnostic tests that could have been performed on a less costly outpatient basis, they say. Over time the hospital became all the more important and central to the delivery of healthcare services.

This increased the need for health insurance:

Since medical care became more costly, insurance became more useful (indeed, necessary). In turn, the presence of insurance helped underwrite a buildup of resources and an upgrading of technology that added to costs and made insurance even more valuable. [68]

Remember the incentives here.

- Employees liked the system because it appeared free to them;
- Carriers liked the system because the government subsidized their product (health insurance policies);
- Hospitals loved the system because they received patients and insurance payments – a wonderful recipe for making money.
- Employers objected somewhat to this system, but not terribly strenuously. After all, the government was subsidizing their health insurance payments, so they felt the pain only partially.

---

[67] Enthoven and Fuchs, 'Employment Based Health Insurance: Past, Present and Future' Health Affairs, Nov/Dec 2006

[68] Richmond and Fein, op. cit., pages 38 - 39

Our healthcare system was hospital based – not really interested in preventive care (hospitals couldn't charge much for that); not really interested in public health (the field was only just developing); not really interested in outpatient or chronic care. Providers focused on hospital care because that's where the money was.

Hospital insurance stimulated the excess use of hospitals, which created more need for hospital insurance. Three byproducts:

- First, we used hospitals for almost all medical care, even if less expensive setting existed;
- Second, we developed fewer outpatient, home based, preventive or non-hospital types of medical care;
- Third, we continued to underfund social program. All this hospital growth and funding (largely from government programs and tax subsidies) crowded out social service investments.

Yet this third issue was tremendously important. Let me quote Professors Richmond and Fein on the relative importance of hospital investment and public health investments. [69] And remember: these were two highly respected Harvard Medical School professors. Richmond, in fact, was US Surgeon General in the Carter administration.

- 'A growing professional consensus holds that the health gains since WWII were largely **the consequence of applying our knowledge of health promotion and disease prevention rather than improved clinical care…' (**i.e. public health investments**)**
- 'The revolution in biology subsequent to World War II, a revolution that had brought many advances to clinical care, as yet **had only marginal effects on improving our vital statistics'**

Social spending had a bigger impact on our national health gains than did hospital investments! We invested the wrong way (assuming our healthcare investments were aimed at promoting health).

How Could Employers Afford Health Insurance Premiums after World War II?

What set of circumstances allowed this system to develop? Why was the employer based system healthy and growing until the late 1900's, then in decline?

It turns out that for a number of years, this 40 year period more or less, many countries were (a) recovering from World War II or (b) gaining independence and expanding their

[69] Richmond and Fein, op cit, pages 92 and 94

educational systems. They were not economic threats to the United States – countries like Japan, India, Korea, China, or Western Europe. We dominated economically.

Our big firms in particular were very profitable. They didn't have much foreign competition. They could afford to pay for employee healthcare. They could raise prices because nobody was competing with them to keep prices low. That's the trend that you see from World War II to about the 1980s or so. Big firms could set the standard and then small businesses filled in the holes. All competed for labor based on offering attractive 'salary + benefits packages' and all could because the big firms were managing the world economy.

This allowed the U.S. to have an extra cushion of money available for healthcare benefits. Even though people complained, the economy could support the excess premiums. Regulated industries - for political and various other reasons - were able to pass on the cost because our economy was stronger than any other. Unions were strong. They could demand health insurance and the big firms could afford it.

The key factors that fostered employer based health insurance post World War II all changed in the 1980s and 1990s:

World Economy, 1945 – 2000 +/-

Little foreign competition for American manufacturers;

Japan and Western Europe needed time to rebuild;

US manufacturers could keep prices high and afford health benefits

Importance of Large Firms, Regulated Industries and Unions

GM, US Steel, ALCOA, etc – profitable with little foreign competition. Able to share profits with employees as benefits;

Regulated industries (AT&T) – regulated monopolies were able to pass health insurance costs to consumers; they had little or no competition;

Unions were relatively strong, could bargain effectively for benefits

All these conditions changed in the 1980s and 1990s. Our ability to generate excess profits, if you will, to afford for the employers to pay for healthcare starts to disintegrate as foreign competition gets going. From World War II until about 1980 or 1990 we could afford employer based health insurance and there was no significant political group that was lobbying or arguing against it.

Medicare and Medicaid Remove Potential Political Threats to Employer Based Insurance

One major potential political threat to our employer based health insurance system could have come from the unemployed – that significant percent of the population that is

too old to work or unable to find full time work with benefits. This is potentially a very potent political force that could have lobbied in favor of single payer healthcare, universal coverage or something like that – like in other countries.

By introducing Medicare and Medicaid in the 1960s, this political force goes away. People are happy. They're not under pressure. They're not demanding universal coverage because they've got coverage. Where are politicians going to find a block of supporters who are going to argue for single payer systems, universal healthcare? They don't exist because Medicare and Medicaid took the potential block off the table.

Here is an estimate of the population size that these two entitlement programs satisfied. I'll use Medicare, because this covers the elderly who vote in particularly high numbers and in particularly important electoral states like Florida. This large voting bloc could have become a potent political force for universal coverage. Instead it became satisfied with Medicare.

Medicare Enrollment 1970 – 2000

Year	Number Medicare Enrollees	% of US population
1970	20 million	10%
1980	28 million	12%
1990	34 million	13.5%
2000	39 million	13.8%

Medicaid covers about the same population size.

The argument is that Medicare and Medicaid are key supporters of our employer based health insurance system. They allowed the system to grow and become entrenched nationally in the second half of the last century.

The employer based system reaches its peak of 165 million people in 2000 and then it starts to decline. Why did it decline? Because the international economic conditions changed. American firms could no longer pass on benefit costs to their customers.

At the same time, the hospital lobbies and related groups had done such a good job of protecting their constituencies that healthcare became hugely expensive. Healthcare grew from about 4% of US GDP in 1950 to 14% in 2000 to about 19% today.

Lower cost alternatives to large general hospitals – freestanding outpatient clinics, for example – never took hold, presumably due to hospital lobbying efforts. Similarly, specialty hospitals – local diabetes clinics, for example – also failed to establish themselves, again presumably, for the same reasons. The Affordable Care Act, for example, didn't actually prohibit establishment of physician-owned specialty hospitals, but placed such burdensome requirements on their establishment as to destroy this as a potential market force.

By the early 2000s we had developed a perfect storm for healthcare system financial catastrophe. Our healthcare costs – primarily hospitalizations due to the government subsidies of fringe benefits – rose far faster than GDP. Meanwhile, American businesses' abilities to pay for their employee's health coverage diminished in the face of foreign economic competition.

Mandates

As healthcare became increasingly costly, carriers (reflecting employer's interests) tried denying services to patients. This spurred a political reaction, pitting patients and medical provider interests against employers. Perhaps the most impressive display of patient and special interest power presented itself by the growth of healthcare mandates.

The number of state mandated services grew from 7 in 1965 to 1961 in 2008. These reflected the political power of special interests to protect the incomes of their members. Chiropractors lobbied for chiropractic to be included as a benefit in insurance policies. Nurses lobbied for minimum nurse-to-patient ratios. Voters generally supported mandates as protection against insurance carrier abuses.

Mandates raise prices. This increases the need for insurance but makes insurance less affordable, which increases the need for government subsidies (tax breaks and, in some states like Massachusetts, premium supports), which reduces the amount of money available for social programs and 'health promotion and disease prevention' activities (in the words of Richmond and Fein [70]) which in turn medicalizes social problems and raises costs.

But perhaps most disappointing of all, mandates don't improve patient health much. Consider this graph comparing American life expectancies to French and Canadian as we increased the number of healthcare mandates between 1965 and 2010. You can see how our life expectancy rates fell slightly below the trend line of the French and Canadians even as we required more healthcare services for our patients.

Instead, healthcare mandates are political reflections of the economic power of various healthcare groups. They have, apparently, little impact on health. But they ensure that the various medical interest groups get paid.

Consumer Driven Healthcare to the rescue (or not)

The first major attempt to adapt employer based healthcare to these new economic realities was CDHC or Consumer Driven Health Care. The term 'consumer driven health care' arose primarily from the Medicare Modernization Act of 2003 which established Health Savings Accounts.

[70] Richmond and Fein, The Healthcare Mess, page 92

'Consumer driven products' are high deductible health insurance policies with certain tax benefits. Each consumer spends the deductible as he/she sees fit – for physician visits, medications, tests, therapies etc – more or less employing the consumer sovereignty idea we discussed earlier in this chapter. Only after satisfying the deductible does insurance pay. Then, depending on the specific plan design, insurance pays all or part of additional medical expenses.

Problems equating high deductibles with consumerism in healthcare

Unfortunately, CDHC policies as 'consumer sovereignty light' fail in healthcare for two main reasons.

First, an annual $1000 deductible (or even $3000) is too small to act as a real medical spending brake. Once satisfied, and depending on the specific plan design, all other medical care is free.

A patient might satisfy that deductible hurdle in January and then enjoy lots of excessive and unnecessary medical care for free during the next 12 months.

Or the deductible has little impact on a patient facing an expensive procedure. What's the difference to this patient if the procedure costs $45,000 …. $50,000….$60,000 or $100,000? Once the deductible is satisfied, the rest is free. 'Consumerism' fails to affect patient behavior in these expensive cases.

This fundamental flaw in the 'high deductible = consumer driven healthcare' thesis exists because the vast majority of healthcare spending goes to a very small group of high cost patients. Here's spending by percentage of the population. These numbers have remained remarkably constant for the past several years.

Healthcare Consumption by % of Our Population [71]

1% of our population accounts for about 24% of medical spending

5% of our population accounts for about 49% of medical spending

10% of our population accounts for about 64% of medical spending

50% of our population accounts for about 97% of medical spending

So the healthiest 50% of our population accounts for only about 3% of medical spending. These are typically the folks who purchase CDHC products and who often spend less than $1000 annually. Cutting their spending by 20 or 30% would have *virtually no impact* on *overall* medical spending or trend.

[71] Yu, et al, 'Medical Expenditure Panel Survey Statistical Brief #81', May 2005, Agency for Healthcare Research and Quality

Here's the same chart using 2010 spending data. In 2010, total US healthcare costs reached about $2.7 trillion for the approximately 310 million of us. Though the 2010 average annual healthcare spending per person was about $8,700,

The 1% heaviest users (3.1 million people) averaged about $209,000 each;

The 5% heaviest users (15.5 million people) averaged about $85,000 each;

The 10% heaviest users (33 million people) averaged about $52,000 each;

The 50% lightest users (155 million people) averaged about $500 each

Very few of the 10% of users who account for about 2/3 of all medical spending will change their medical choices based on a $1000 (or even $2500 or $5000) deductible. *Whatever* the deductible, their medical care needs far exceed it.

Second, medical consumers have little meaningful quality information, and even if they have it, they rarely know how to use it. This makes medical decisions different from, say, car purchasing decisions. The car buyer can compare the quality of various cars before deciding which to purchase. Large or small, good gas mileage or poor, lots of luxuries or few, high resale value or low, etc.

But the medical purchaser generally has very little similar information. Which doctor has the best outcomes? Which hospital? How effective is this medication compared to that one? We generally lack detailed answers to these questions.

For these two reasons – unequal healthcare spending and lack of medical quality information / well educated medical consumers - so-called Consumer Driven Health Care had only a small impact on medical trend which has run at our gdp growth rate plus 3 – 5% annually for years. CDH policies became the vogue in the early 2000s. They pretty much ran their course within about a dozen years.

Americans continue to spend about twice as much on healthcare as other developed countries without getting any value for the excess spending, just as we did prior to CDHC policy introduction. Here are the estimates for 2019, the last year before Covid hit and altered these statistics with a unique set of circumstances. (I don't know if or how Covid is representative of 'normal' healthcare trends so try to leave that out of this analysis.) [72] I could have included more countries but you get the idea from this limited comparison.

[72] OECD Health Data statistic updated annually https://stats.oecd.org/Index.aspx?ThemeTreeId=9

2019	Annual spending / capita	Life expectancy at birth
US	$10,855	78.8
Canada	$6,730	82.3
France	$4,014	83
Spain	$2,412	84
UK	$3,334	81.4

We clearly haven't figured out how to generate good value for our healthcare system costs.

Three additional problems with having employer based health insurance as the centerpiece of our healthcare financing system

Price structure: Today's health insurance policies are priced at 'employer contribution + employee contribution'. Losing your job may lead to a quadrupling of your health insurance premiums, assuming that your employer pays 75% of the premium.

Labor market distortions: Some employees either choose jobs or remain on their jobs for the health insurance. Two main reasons for this are

- cost – employer contributions reduce employee costs, and
- access – pre-existing conditions traditionally made health insurance unavailable to some people if they changed from their current jobs, though the Affordable Care Act has changed much of this.

One research paper estimated that employer based insurance reduced job mobility by 25 – 40% [73] at least until the ACA impacts work their way through our healthcare system.

Impact on the Federal budget: Tax breaks for employer based health insurance (not income taxable to the employer or employee) constitute the biggest tax break / loophole in the federal budget, an estimated $260 billion annually. [74] This is roughly 3x the mortgage interest tax deduction.

[73] Gruber & Madrian, 'Health Insurance, Labor Supply and Job Mobility' Workng Paper 8817, NBER, March 2002

[74] Health Affairs *Health Policy Brief*, August 1, 2013 'Premium Tax Credits', http://www.healthaffairs.org/healthpolicybriefs/brief.php?brief_id=97

This tax break is regressive: higher income people with expensive policies are subsidized by lower income people with less expensive policies.

Many on Capitol Hill seek to reduce this tax break. Here, for example, is Representative Paul Ryan who ran for Vice President in 2012 with Mitt Romney. The tax deductibility of employer based health premiums

> tilts the compensation scale toward ever-greater (tax free) benefits and away from higher (taxable) wages. This isn't just a big driver of runaway healthcare costs, as more dollars chase the same amount of services. It's also a big reason why too many Americans haven't seen a raise in a long time. [75]

Ryan, among other things, echoes my suggestion that employers pay premiums by withholding wage increases from employees. $1 of benefits is worth more to the employee than $1 of wages since the wages are taxed.

Paul Starr, Princeton Professor of Sociology who normally sits far to the left of Ryan, agrees with him on this point, saying the employer based premium tax exclusion has

> long been the target of criticism on both distributive and allocative grounds: it provides the biggest subsidies to higher income employees with the most generous insurance, and it contributes to America's inflated health spending by obscuring the true costs. Nixon and Clinton considered limiting the exclusion, but each rejected the idea because of political opposition.[76]

Summary: Employer Based Health Insurance

Employer based insurance provides some 160 million Americans with health coverage. But it does so remarkably poorly.

- By setting powerful employer business interest groups against far weaker population health interest groups, it's a key cause of underfunding our various (health related) social services
- The employer based structure harms **employers** by putting an unnecessary (for widget production) economic and administrative burden on them.
- It harms **employees** by reducing their medical care options
- It harms **patients** by locking our system into one focused on short term cost control rather than long term outcome improvement, or, in economic terms, value creation

---

[75] Turner, Capretta, Miller and Moffit, Why ObamaCare is Wrong for America, Forward

[76] Paul Starr, Remedy and Reaction, page 258

- It harms **carriers** by reducing their ability to develop high value products and by forcing them to satisfy employer needs rather than patient, and
- It harms **providers** – doctors and hospitals – by reducing their ability to focus on long term outcomes and treatment excellence, but rather on short term costs, carrier and network referral requirements and associated administrative tasks aimed at reducing moral hazard.

Where will this take our healthcare system? Stanford Business School Professor Alain Enthoven summarizes in prophetic terms. Our employer based model, he suggests, will unfold 'like a Shakespearean tragedy: known, tragic flaws taking their inexorable toll.' [77]

Or, as Lady Macbeth might put it,

> *The employer based healthcare financing system simply doesn't work. Bandaids and piecemeal reforms cannot not fix this fundamentally flawed model.*

(I've admittedly taken some pretty generous poetic liberties here. Lady Macbeth actually said 'Here's the smell of the blood still. All the perfumes of Arabia will not sweeten this little hand'. It's not easy ending a chapter on employer based healthcare financing with a Shakespearean quote!)

[77] Health Affairs, Forum on Employer Sponsored Health Insurance, 2006 http://content.healthaffairs.org/content/25/6/1537.full

Review Questions

Answers on next page

1. This chapter suggested that Moral Hazard is endemic to health insurance. What is moral hazard?

a. People get more care than they need because it appears free to them
b. People with poor moral standards get more care than appropriate because they are greedy
c. There is a close correlation between high morals and low healthcare costs
d. 'Moral hazard' addresses the mind-body relationship. Basically moral people sleep better so remain healthier than lose moral people who more typically suffer from sleep disorders

2. This chapter suggested that disconnecting health insurance payers from healthcare users leads to inefficiencies. What does 'disconnecting health insurance payers from users' mean?

a. Payers are employers but users are employees
b. Payers are generally government entities that pass rules and legislation but users – who must implement those rules – are employers
c. Payers are, in reality, tax payers who fund most healthcare in this country even though employers are the biggest cohort of users
d. Payers are carriers who actually pay doctors and hospitals for their services while 'users' are all the entities that make up the bills, like pharmaceuticals, device manufacturers etc

3. This chapter suggested that having 1 year long health insurance policies leads to systemic inefficiencies. Why?

a. Carriers and providers try to control short term spending to keep renewal increases low, while some 70% of spending goes to patients with chronic diseases that require a long term focus.
b. Renewing annually creates far more paperwork, and therefore costs, than a more efficient system would have
c. Most employers would prefer longer term policies – 10 or even 20 year long policies – so they could plan and cut overhead
d. One year long policies opens the door to expanded lobbying on Capitol Hill from groups that offer the 'newest and greatest' short term health insurance fixes

4. This chapter suggested that having employment as the core of our healthcare financing system leads to underfunding social programs (that often have a major impact on health). Why is that?

a. Many of the social causes of medical problems – poor nutrition or poor housing, for example – are not the employer's financial responsibility. As such,

they are often left out of our health insurance discussion, since carriers and employers focus so intently on the next year's policy renewal price.
b. Social programs, as many studies have shown, have little to no impact on medical care or spending
c. Employers lobby aggressively to cut social spending programs which might, if they worked well, increase the employer's premium costs
d. Employers, brokers and carriers combine to develop fully comprehensive insurance plans. Anything not included in those plans, virtually by definition, is not relevant to promoting good health.

5. Who pays health insurance premiums?

a. The employee by foregoing wages
b. The employer by foregoing profits
c. The government by crediting the premiums equally to the employer and employee
d. Hospitals by undercharging for their service

6. Why do we have healthcare mandates in this country?

a. To improve care quality. Since the introduction of mandates our 30 day readmission rates have fallen almost to zero
b. To improve care outcomes. Since the introduction of mandates, our average longevity at birth has increased by almost 100 years
c. To reduce infant mortality. Since the introduction of mandates, our infant mortality rates have fallen to the lowest in the world
d. To reward lobbying by influential groups like nurses (who lobby for nursing mandates), chiropractors (who lobby for chiropractic mandates), pharmaceuticals (who lobby for pharmaceutical mandates) and similar.

7. Which country exhibits the shortest life expectancy at birth?

a. US
b. France
c. Canada
d. Britain

8. Which country uniquely bases healthcare financing on employment?

a. Britain
b. Canada
c. US
d. France

9. About how much medical care is 'unnecessary' according to scholars at Dartmouth and other research institutions?

a. 1%
b. 30%
c. 90%
d. 95%

10. Who actually pays the employee's premiums in our employer based system?

a. The employer
b. The employee via foregone wages and the government via foregone taxes
c. The insurance carrier
d. The primary care doctor

11. How does our employer based healthcare financing system affect job mobility?

a. It has no impact on job mobility
b. It increases job mobility
c. It reduces job mobility because people may be reluctant to switch insurance types and coverage because the switch may lead to provider and treatment differences
d. It increases job mobility in the public sector but reduces it in the private sector

12. Which is the biggest tax break allowed by the IRS?

a. Employer based healthcare premiums
b. State sales taxes
c. Foreign travel
d. Home office deduction

Review Questions

Correct answers in bold

1. This chapter suggested that Moral Hazard is endemic to health insurance. What is moral hazard?

a. People get more care than they need because it appears free to them
b. People with poor moral standards get more care than appropriate because they are greedy
c. There is a close correlation between high morals and low healthcare costs
d. 'Moral hazard' addresses the mind-body relationship. Basically moral people sleep better so remain healthier than lose moral people who more typically suffer from sleep disorders

2. This chapter suggested that disconnecting health insurance payers from healthcare users leads to inefficiencies. What does 'disconnecting health insurance payers from users' mean?

a. Payers are employers but users are employees
b. Payers are generally government entities that pass rules and legislation but users – who must implement those rules – are employers
c. Payers are, in reality, tax payers who fund most healthcare in this country even though employers are the biggest cohort of users
d. Payers are carriers who actually pay doctors and hospitals for their services while 'users' are all the entities that make up the bills, like pharmaceuticals, device manufacturers etc

3. This chapter suggested that having 1 year long health insurance policies leads to systemic inefficiencies. Why?

a. Carriers and providers try to control short term spending to keep renewal increases low, while some 70% of spending goes to patients with chronic diseases that require a long term focus.
b. Renewing annually creates far more paperwork, and therefore costs, than a more efficient system would have
c. Most employers would prefer longer term policies – 10 or even 20 year long policies – so they could plan and cut overhead
d. One year long policies opens the door to expanded lobbying on Capitol Hill from groups that offer the 'newest and greatest' short term health insurance fixes

4. This chapter suggested that having employment as the core of our healthcare financing system leads to underfunding social programs (that often have a major impact on health). Why is that?

a. Many of the social causes of medical problems – poor nutrition or poor housing, for example – are not the employer's financial responsibility. As

such, they are often left out of our health insurance discussion, since carriers and employers focus so intently on the next year's policy renewal price.

b. Social programs, as many studies have shown, have little to no impact on medical care or spending

c. Employers lobby aggressively to cut social spending programs which might, if they worked well, increase the employer's premium costs

d. Employers, brokers and carriers combine to develop fully comprehensive insurance plans. Anything not included in those plans, virtually by definition, is not relevant to promoting good health.

5. Who pays health insurance premiums?

a. The employee by foregoing wages

b. The employer by foregoing profits

c. The government by crediting the premiums equally to the employer and employee

d. Hospitals by undercharging for their service

6. Why do we have healthcare mandates in this country?

a. To improve care quality. Since the introduction of mandates our 30 day readmission rates have fallen almost to zero

b. To improve care outcomes. Since the introduction of mandates, our average longevity at birth has increased by almost 100 years

c. To reduce infant mortality. Since the introduction of mandates, our infant mortality rates have fallen to the lowest in the world

d. To reward lobbying by influential groups like nurses (who lobby for nursing mandates), chiropractors (who lobby for chiropractic mandates), pharmaceuticals (who lobby for pharmaceutical mandates) and similar.

7. Which country exhibits the shortest life expectancy at birth?

a. **US**

b. France

c. Canada

d. Britain

8. Which country uniquely bases healthcare financing on employment?

a. Britain

b. Canada

c. **US**

d. France

9. About how much medical care is 'unnecessary' according to scholars at Dartmouth and other research institutions?

a. 1%
b**. 30%**
c. 90%
d. 95%

10. Who actually pays the employee's premiums in our employer based system?

a. The employer
b**. The employee via foregone wages and the government via foregone taxes**
c. The insurance carrier
d. The primary care doctor

11. How does our employer based healthcare financing system affect job mobility?

a. It has no impact on job mobility
b. It increases job mobility
c. **It reduces job mobility because people may be reluctant to switch insurance types and coverage because the switch may lead to provider and treatment differences**
d. It increases job mobility in the public sector but reduces it in the private sector

12. Which is the biggest tax break allowed by the IRS?

a**. Employer based healthcare premiums**
b. State sales taxes
c. Foreign travel
d. Home office deduction

Managed Care

Managed care is classically defined as:

> large multispecialty group practices [that] provide a comprehensive set of healthcare services at a per capita price set in advance.[1]

These large practices include both a financial and service provision component. According to the theory, managed care organizations include both the insurance function and healthcare treatment function in the same company. Thus in a true managed care society we would no longer have separate health insurance carriers, independent physicians, independent general hospitals and fee-for-service billing. Instead, we would have large organizations that integrate finance and treatment functions for the good of the subscriber / patient.

In the ideal model managed care organizations compete with each other to provide the best value to subscribers.[2] Members of one organization could use all facilities owned by, or integrated into, that practice, but none of a competitor. Each local hospital, for example, would join only one managed care organization. Competition among these is called 'managed competition' and follows a set of prescribed rules. More on this below.

Managed healthcare differs from the three other forms of healthcare financing.

First, managed care differs from indemnity insurance. The traditional US medical insurance until about 1990 was indemnity coverage. Insurers indemnify – or pay back - subscribers for medical treatment after-the-fact. The subscriber receives treatment, pays the provider, and then submits the bill to the carrier for indemnification. Carriers indemnify (pay) the subscriber according to coverage provisions. (Carriers might bill the hospital directly and then balance bill the subscriber.) Typically indemnification plans include a deductible and a co-insurance rate. For example, the subscriber might have an annual deductible of, say $500 and 80% co-insurance - means the carrier pays 80% of all allowed costs above the deductible.

Carriers often pay 'usual and customary' or 'cost plus' fees to providers according to the carriers' fee schedule, and will generally pay any licensed healthcare provider. Under indemnity financing, there is no particular corporate or cultural relationship between any particular healthcare financing entity and provider. The relationship is entirely financial.

Indemnity health insurance plans only pay for medical services provided, creating a potentially powerful financial incentive for physicians and hospitals to perform tests and procedures. Indemnity plans typically pay very little (or nothing) for <u>preventing</u> medical treatments. With cost-plus reimbursement, providers have little financial incentive to offer low cost treatments, and a significant financial incentive to perform the most expensive available procedures. At the same time, indemnity carriers typically allow physicians and hospitals wide latitude to use their best judgements when designing medical treatments.

Indemnity insurance has three major drawbacks. **First**, it is very inflationary. Fee-for-service indemnification offers hospitals incentives to perform unnecessary or excessive treatment; it is a major contributor to Moral Hazard and the Medical Arms Race.

Second, indemnity results are often relatively poor, as we see above with Uneven Treatment Quality and Poor Safety Investments. It does not invest in prevention. Its' fee-for-service model is inappropriate for chronic disease care.

And **third**, indemnity insurance offers little, if any, data collection resources to inform carriers or providers which treatments generate which results. This makes results-based competition among carriers exceedingly difficult to implement.

****

Second, managed care differs from single payer healthcare. Under single payer financing, one entity – often the government – pays for all healthcare for all citizens. Most advanced industrialized countries use some form of single payer healthcare financing as we do in the US with Medicare and the Veterans Administration Healthcare system.

Proponents of single payer financing argue that it is more equitable than any other form of healthcare financing, for all citizens are treated the same. Indeed, a key positive element of single payer financing compared to our current healthcare system is the universal nature of health coverage. In addition, supporters claim that single payer overhead is far less than private insurance, often citing Medicare's 2% overhead factor compared to private carriers 10 – 15%.

Interestingly, proponents of single payer systems sometimes use international outcome statistics to bolster their case. The British and Canadians for example, live longer than we do, exhibit lower infant mortality rates than us but spend less on healthcare. The conclusion offered by single payer advocates: the British or Canadian healthcare financing system is not only cheaper, but also better than ours. (We evaluate this argument in our course on Single Payer systems.)

Opponents of single payer financing claim that public financing leads to underfunding of healthcare. This in turn leads to less investment in medical technologies and long waits for medical services. Opponents of single payer systems often point to the relative dearth of the latest technologies available in the UK or Canada, or to the extensive waits for many services in these countries.

Opponents also claim that single payer financing eliminates competition from healthcare to the detriment of the entire system. Only through competition, many believe, can we simultaneously reduce healthcare costs and improve outcomes. Managed care proponents, as you will see below, subscribe to this position.

****

Third, managed care differs from consumer driven healthcare. Under CDHC, consumers make their own decisions about their healthcare. CDHC proponents believe that healthcare is essentially like other goods and services in our economy and that consumers are perfectly able to shop among providers for the best value.

Consumer driven theorists believe that competitive shopping pressures from individuals will control healthcare costs and improve healthcare quality. Impediments to competition such as mandates, regulated term insurance policies and group-based policies reduce consumer sovereignty thus harm our system. Consumer driven advocates want to treat health insurance like typical goods and services in our society such as automobiles, retirement funds or houses.

Managed care theorists disagree. They believe that healthcare is fundamentally unlike other goods and services in our economy, and that consumers by themselves are unable to shop wisely for health services for reasons of information availability, risk and price.

Consumers, according to managed care theory, cannot access good information about important aspects of our healthcare system. They cannot self-diagnose nor determine which specialists are 'better' than others. They can't determine which treatment is most appropriate, which hospital is best for a specific ailment, or which providers offer the best value. Consumers need advisors to navigate through our healthcare system. In the managed care vocabulary, the advisor is the Primary Care Physician.

MANAGED CARE DESCRIBED: As envisioned by perhaps its foremost proponent Alain Enthoven, Professor Emeritus at Stanford Business School, managed care organizations are integrated entities that include both healthcare delivery systems (providers, labs, etc) and an insurance (financing) function. The critical components are:

1. Multispecialty group practices, comprised of primary care physicians, nurses, specialists, etc;
2. A voluntarily enrolled population that understands the advantages (price and hopefully quality) and disadvantages (reduced provider choice) of membership;
3. Comprehensive care;
4. Per capita prepayment;
5. Accountability by the organization; and
6. A close relationship between the financial and healthcare service delivery arms. [3]

The goal of managed competition, according to Enthoven is 'to divide providers in each community into competing economic units and to use market forces to motivate them to develop efficient delivery systems.' Only through competition can the health plans that do the best job of improving quality, cutting costs and satisfying patients be rewarded.

Competition occurs at the level of integrated financing and delivery plans, not at the individual provider level.

This environment will force competing prepaid group practices to innovate and improve care quality while reducing costs. As such it is far superior to single payer healthcare which has no such competition forcing innovation and cost control. For managed care / managed competition to work, perfect premium price competition among plans must be preserved. Any interference with price competition – including government practices, taxes, employer contributions, union demands or other artificial market imperfections – will modify the competition and reduce its positive effects.

Prepaid group practices originally developed through competition with the traditional fee-for-service / indemnity coverage. To survive, the flagships of the HMO movement had to outperform traditional medical practices. These original groups included Group Health Association in DC (founded in 1935), Group Health Cooperative of Puget Sound (founded in 1945) and Kaiser Permanente (founded in the 1930s) the largest of all. Kaiser is generally regarded as the prime model of a successful prepaid group practice or managed care organization.

A LOOK AT KAISER PERMANENTE: Kaiser Permanente was formed in the 1930s when industrialist Henry Kaiser contracted with physician / entrepreneur Sidney Garfield to provide healthcare to Kaiser employees. Garfield owned a small chain of health clinics. For $.05 per employee per day he offered to cover industrial medical care (workers comp), and for an additional $.05, non-industrial healthcare (major medical) for all Kaiser employees.

As this business grew, Garfield contracted with the Permanente medical group. Kaiser became Permanente's exclusive client, and Permanente, Kaiser's exclusive provider. The organization became known as Kaiser-Permanente.

KP integrated the financial and service provision functions into a single company. It owned its own hospitals to eliminate the conflict between hospitals wanting higher occupancy and carriers wanting lower. It hired physicians on salary to eliminate the potential for moral hazard excess testing and billing. KP emphasized prevention, for it had incentives to keep people healthy and out of the hospital. Remember that it received a fixed payment per subscriber from the Kaiser industrial business, today commonly called capitation. If KP could service its subscriber population for less than $.05 per employee per day, it remained financially solvent. If not, it lost money.

As KP grew, it innovated to maintain quality while reducing costs:

1. Kaiser hospitals in the 1950s reported 25% shorter stays than the US hospital average;
2. Kaiser' ratio of outpatient visits to hospital admissions was 50% higher than the US average in 1969;

3. In the 1960s, Kaiser was among the first to offer home nursing services as a substitute to expensive lengthy hospitalizations;
4. Through the 1970s and 80s, Kaiser continued to emphasize outpatient care, becoming one of the first institutions to offer freestanding surgery and emergency care facilities.[4]

In 1971, Dr. Cecil Cutting, the executive director of the Kaiser Permanente Medical Group in northern California wrote that the 'direct relationship of prepayment to providers become an incentive for the physician to develop economies in spending the medical dollar while maintaining quality'. [5] This differentiated Kaiser Permanente from the more common indemnity form of insurance.

Kaiser Permanente developed a unique institutional culture emphasizing prevention, waste reduction and a constant search for the least expensive / best treatment option.[6] Much of this came from Sidney Garfield. His waste control fanaticism became legendary: employees could only get a new pencil if they turned in a pencil stub of less than 3 inches. 'This period of stringent economy established a pattern of frugal allocation of resources that persisted even into more prosperous years' suggests Harvard Business School's Regina Herzlinger. [7]

The Kaiser culture formed in opposition to – and under attacks from – organized medicine. Garfield established his medical operations in the Mojave Desert in the early 1930s. He battled Great Depression economics and organized medicine that viewed his physicians as an economic threat. (Independent medical practitioners worried that prepayment would motivate physicians to provide fewer services than needed, thus harming both the profession's reputation and pocketbook.)

Garfield hired only true believers in his model, people interested in making the plan work. He claimed that 'if you don't have the [people] who have it in their hearts to make it work and who believe in prepaid practice, it won't work.'[8] His physicians worked 6 days per week. They formed tight social groups. 'We picked people who liked each other – we felt like we were enjoying ourselves.' Garfield worked alongside staff physicians and continually sought their input and new ideas. His clinics were dynamic worksites.

This bonding experience was one factor in the development of KPs' culture. Other factors included its business structure that integrated physicians, hospitals and insurance with each other, long term relations with patients and prepayment / capitation. This set of factors was unique to KP among health insurance companies.

In business terms, KP successfully vertically integrated the provider and financial functions for the overall good of the organization – very difficult to do. (See discussion of vertical integration and transfer prices, below.) KP's evolution and economic incentives allowed financial controllers, for example, to make decisions for the patient's long-term benefit, rather than focus on short term cost control. In part this was because KP had subscribers for life theoretically – or at least as long as they worked for the Kaiser

industrial enterprises. The subscribers' future health had a direct bearing on KP's future success. Also in part, this was because the KP management established a corporate culture that superceded specific division or functional loyalties.

Thus Kaiser Permanente had a very different economic and corporate approach to the business of patient care than did most of its competitors.

NIXON'S HMO ACT OF 1973: Richard Nixon used Kaiser Permanente as the basis of his HMO Act of 1973, because KP was the largest and most successful of the HMO models.

Nixon felt pressured to do something to control rising healthcare costs. [9] National healthcare expenditures almost tripled from $27 billion in 1960 to $73 billion in 1970, creating economic and political problems. Robert Finch, then Secretary of Health, Education and Welfare warned Congress in 1969 that 'the nation is faced with a breakdown in the delivery of health care unless immediate concerted action is taken by government and the private sector'.

Politicians and special interest groups lobbied the Nixon administration to overhaul our healthcare system, though from many different points of view. The Special Committee on Aging wanted Congress to extend Medicare and Medicaid programs to the entire population. The 1969 National Governor's Conference endorsed New York Governor Nelson Rockefeller's (one of Nixon's key rivals for the Republican nomination in 1968) plan for national health insurance. Massachusetts Senator Ted Kennedy and the United Auto Workers led the prestigious Committee of 100 for National Health Insurance in drafting it's own universal healthcare plan.

Even Nixon's own assistant Secretary of Health, Education and Welfare, Lewis Butler, wrote that 'ultimately some kind of national health insurance should be enacted.' And Dr. Vernon Wilson, Nixon's chief of Health Service and Mental Health Administration at HEW said that Kennedy's plan 'was a well-conceived, comprehensive approach to solving the nation's health delivery problems.'

Nixon's problem: he had to do something, but he couldn't support a Democratic healthcare plan sponsored by one of his chief rivals, Ted Kennedy. Nor could support a Republican plan sponsored by another political rival, Nelson Rockefeller – especially a plan that potentially harmed the physicians, hospitals and insurance carriers that supported Nixon politically. He had to develop his own plan.

Dr. Paul Ellwood Jr, sometimes called the father of the HMO came to Nixon's rescue in 1970. Ellwood recommended a prepaid healthcare system that would motivate doctors and hospitals to control costs and keep patients healthy. Assistant Secretary Butler (see above) supported Ellwood's ideas because they fit with the Republican philosophy of support for free markets and competition to reduce costs. Butler also believed that these HMOs would be inexpensive to implement, optional and self regulating. Many conservative politicians and organizations agreed with the HMO idea because it was

flexible, inexpensive, encouraged private investment in profit-making organizations and imposed few mandates or regulations. Nixon's new HEW Secretary, Elliot Richardson predicted in 1970 some 450 HMOs by the end of fiscal 1973 and 1700 by end 1976.

The Republican HMO plan faced opposition from both the left and right between 1970 – 1973. Kennedy and the Left consistently fought for higher levels of guaranteed benefits, community rating, open enrollment periods and significant Federal grants and loans to help HMOs proliferate. Richardson, the AMA and the Right wanted only basic levels of guaranteed benefits, less government funding and individual underwriting. Richardson in particular, feared that community rating would put HMOs at a competitive disadvantage compared to indemnity coverage that routinely rejected people with significant medical needs.

The AMA in particular, lobbied enthusiastically against the HMO idea. Dr. Malcolm Todd, for example, chair of the Physician's Committee to Reelect the President claimed 'We used all the force we could bring to bear against this legislation. As a result, there has been some backtracking on the part of the White House, [which] directed the [HEW] Secretary to slow down this thing.'

As a result of these competing pressures and Nixon's determination to implement his own plan (i.e. not Kennedy's or Rockefeller's), the HMO Act of 1973 was not a particularly close copy of the Kaiser Permanente model. Indeed, the changes to KP's model doomed the entire effort for three main reasons:

First, under Nixon's law, HMO meant simply 'prepayment' – not vertical integration. Healthcare delivery and healthcare finance were separate functions handled by separate companies. This satisfied independent insurance carriers, physician groups and general hospitals - all parts of Nixon's political base. But the key integration feature that made Kaiser-Permanente so successful was lost in the legislation.

Why did carriers, physician groups and general hospitals dislike vertical integration? The short answer: they wanted to compete for revenues with each other.

Carriers hoped to dominate the marketplace and dictate economic terms to providers. The American Medical Association wanted its members to remain free from carrier or hospital meddling so they could protect their incomes. Hospitals wanted to determine patient lengths of stay to protect their own cash flow.

None of these groups trusted the others or the government to protect their interests.

Second, Nixon's law called for a loose physician structure, in which practitioners could opt in or out of any HMO. Again, this satisfied the insurance, physician and hospital groups. But it was the opposite of KPs tight structure in which physicians were fully integrated into both the hospital and financial system. The loose physician structure meant that providers had no particular loyalty to any specific HMO. Another key feature of KP was lost.

Third, Kaiser-Permanente used a capitated financial structure to motivate providers to control costs. Nixon's law allowed providers to bill insurance carriers on a fee-for-service basis. Absent capitation, much of the underlying financial advantage disappeared.

What were the results of Nixon's legislation? 'The HMO Act of 1973 clearly inhibited HMO development' claims Jan Coombs in *The Rise and Fall of HMOs*. Some 124 HMOs developed from 1970 – 1974, but only 40 developed from 1974 – 1978. Also, the enticement of public funding was insufficient to overcome federal legislative and regulatory requirements, so many HMOs turned to Wall Street financing and state approvals. In 1981, 88% of HMOs were nonprofit; by 1986 this had fallen to 41%.

Nixon's act legitimized HMOs and managed care, but so drastically altered the Kaiser Permanente model that insurers and providers had to develop new organizational forms. No longer did managed care equal Kaiser Permanente's closely integrated finance and service provision model. Instead three different types of managed care appeared in the marketplace.

Staff model managed care looked most like KP. Under a staff model, physicians were paid salaries by the integrated carrier/provider, which generally also owned its own hospitals. This allowed the carrier the greatest amount of cost and quality control over providers. Staff models are the most expensive to establish, take the longest time to get up and running, and offer subscribers the most limited networks of providers. They are generally the least attractive model to consumers for this reason.

Group model HMOs look like the original version of Kaiser Permanente. Here a carrier and provider group have mutually exclusive contracts. Carriers still exert cost and quality controls, through perhaps to a lesser degree. Quicker to establish than staff model HMOs, the limited network is still relatively unappealing to consumers.

Independent Practice Associations or Network Models offer the widest provider networks and the least carrier cost and quality control. The American Medical Association favored this form of managed care after Nixon's law – because it allowed AMA members the best opportunity for financial gain.

With IPAs, multiple carriers contract with any willing provider and carriers have the least amount of input and control. This managed care form also has the highest degree of consumer satisfaction as it generally offers the largest provider network and the least restrictions. Some commentators wonder if IPAs are really managed care at all, or instead simply fee-for-service / indemnity healthcare with a price list.

Post Nixon, HMOs grew because managed care premiums were lower than the alternative, indemnity coverage. As a result:

By 1980, 9 million Americans enrolled in HMOs;

By 1990, 33 million enrolled;
By 2000, 60 million enrolled.

However, the majority of subscribers entered IPA or network models:

Group and Staff Market Share [10]

Date	# of subscribers	% of all HMO subs
1980	7.4 million	81%
1990	13.1 million	39%
2002	7.5 million	10%

This raises a key question: Was the US moving toward true managed care or something else?

COST AND QUALITY CONTROLS 1970 – 2000 Nixon's managed care legislation was supposed to use market forces to control healthcare costs and improve quality, just like Kaiser Permanente's experience. Unfortunately, the legislation differed so significantly from KP's model that various government agencies had to step in and devise new cost and quality control mechanisms. These were previously unseen at KP or other managed care organizations. Many of these controls became codified in our healthcare operations and still continue today; they institutionalized a non-Kaiser Permanente type of 'managed care.'

According to Northwestern Professor David Dranove, these cost and quality control programs 'utterly failed on all accounts.'[11] Bureaucrats and administrators – not physicians and medical practitioners – took over and sabotaged the managed care reform movement. They turned it into something that Sidney Garfield would not have recognized.

Hospital Cost Control Programs

New York State had developed the first **rate setting program** in 1970. The New York legislature tried to cap Medicaid hospital payments and included private carriers in the program to avoid hospital cost shifting. This system was already in place when Nixon's HMO legislation passed. It continued since Nixon's plan allowed hospitals to bill carriers fee-for-service.

New York State was the first to try serious Medicaid cost controls since it had such a large Medicaid population. Medicaid costs are split between the federal and each state government. New York officials worried that continued Medicaid inflation might require politically unpopular tax increases. Hence their motivation to control costs.

The New York State Prospective Rate Setting System established a flat fee per patient per day. The fee was set at the beginning of each year so hospitals could budget and

plan, and was approximately equal to the average cost per patient per day the previous year with an inflation factor and regional cost variations applied.

New York officials figured that the patient population would be about the same each year – about the same number of births, broken legs, heart attacks, etc - so on average hospitals would receive the same income year after year, adjusted for inflation. This assumption proved incorrect.

Hospitals quickly learned how to game the system. Since they received the same reimbursement from Medicaid for all patients, they earned more by admitting the healthy and denying care to the sick. Hospital competition quickly switched from providing excellent service to all patients, to denying service to expensive patients. Not a good solution.

New Jersey observed the experience in New York and sought to improve on New York's model by devising its own Prospective Payment System in the late 1970s – a few years after Nixon's HMO legislation. New Jersey modified New York's calculation of average cost/patient/day by introducing some 470 Diagnosis Related Groups (DRGs). This system, designed by Yale Medical School, divided patient costs into diagnostic groups. Cancer surgery now received a higher reimbursement than a simple overnight observation. New Jersey hoped to deny hospitals the ability to game the system as hospitals had in New York.

Under the New Jersey plan, hospitals would receive appropriate payment for medical treatment, but no more; patients would receive necessary care, but no more; and medical cost inflation would be controlled, at least in theory. Again this changed the KP model: there were no DRGs in Garfield's original system because there was no fee-for-service billing. Medicare took the New Jersey system national in the mid-1980s.

How did hospitals control their costs? Many shifted to more outpatient surgeries – not necessarily a bad thing. In 1984 some 28% of all community hospital surgeries were outpatient; by 1996 that percentage had increased to 59%, mirroring KPs' experience.

Other hospitals simply focused on DRG management. Some hired DRG experts to help 'up-classify' patients to receive higher reimbursements. Others began 'dumping' expensive patients who exceeded their DRG reimbursements by transferring them to other hospitals - presumably with less sophisticated admissions procedures. Some hospitals practiced 'skimming', by admitting only potentially profitable patients. Still others engaged in 'unbundling' services, or requiring patients to make more hospital visits at higher reimbursements, often with no additional health benefits. Hospitals, in other words, figured out how to game the DRG reimbursement system just as hospitals had in New York State.

Perhaps the biggest effect of DRG imposition, though, was a change in hospital culture. Hospitals previously were generally non-profits, funded by charitable contributions and cost-plus reimbursement. They were typically run by physicians who were more

interested in providing service to the community than in maximizing revenues. They faced little financial risk. Perhaps they were more inclined to negotiate cooperative financial arrangements with carriers. As Northwestern's David Dranove says

> Until the early 1980s, the managers of nonprofit health care organizations were under little financial pressure. Market conditions enabled even badly managed hospitals to survive. Private insurers either paid whatever price the hospital charged or paid the hospital for its costs plus a predetermined profit margin…(hospitals) that provided unprofitable services or cared for the uninsured covered the expenses by charging higher prices to everyone else.[12]

Physicians had traditionally run hospitals, leaving administrators to manage bookkeeping, purchasing and other defined line functions. These physicians could, perhaps, have worked in vertically integrated operations.
But DRGs changed this. By putting hospitals at financial risk, DRGs put hospitals and carriers on a competitive collision course. If the hospital managed its DRGs better than the carrier, then it received higher reimbursements – and earned more money - at the carrier's expense. Alternately, if the carrier out-managed the hospital, it made money at the hospital's expense. No longer was collaboration even possible – competition ruled.

Hospitals addressed this competition by hiring MBAs to put them on a level playing field against carrier financial expertise. Hospitals at first hoped to continue business as normal, with the MBA folks focusing on their specific DRG and financial areas of expertise. But this model disintegrated as the business school graduates began assuming true management responsibility.

This responsibility shift opened a Pandora's box. Once hospitals began hiring sophisticated MBAs - to fight the DRG battle - and giving them true responsibility, the MBAs learned how to manage hospitals…and then began buying them.

MBAs saw three particularly attractive reasons to own hospitals. First, hospitals had good long term cash flow provided by the government and private carriers. Second, implementing sound business practices could control hospital expenses – something previously insufficiently widespread in non-profit hospitals. And third, hospitals could design sophisticated accounting and billing systems to increase profits.

So attractive were these opportunities that investor-owned systems acquired over 100 hospitals by 1975; 273 hospitals by 1980 and nearly 500 hospitals (plus 200 more under management contract) by 1985.[13] By about 2000, investor-owned hospital networks dominated the landscape, and companies such as Partners Community Health Plan in Boston and the Sutter system in California were 'unabashed about flaunting their power, publicly stating their intention to use their leverage when negotiating rates with managed care purchasers.'[14]

The DRG subtle accounting change altered the mindset of hospital administrators and investors and began our national shift to investor-owned and professionally managed hospitals. Hospitals felt they had to maintain control over their billing function. Though carriers and regulators won some DRG battles, within 25 years hospitals won the DRG war.

The loser: true managed care. Rather than developing a national system of integrated financing / treatment operations like Sidney Garfield developed for the Kaiser industrial workers, we instead became an investor-owned, private hospital based healthcare system skilled at competing with financing organizations. The unintended consequence of Nixon's legislation became a stronger, more ingrained fee-for-service reimbursement system based on hospital vs. HMO competition. This was not at all what Sidney Garfield had originally developed.

Hospital Quality Control Programs

Just as Diagnosis Related Groups were aimed at controlling hospital costs, so various measures were introduced in the 1970s to control hospital quality. These aimed primarily at ensuring that patients received appropriate, high quality hospitalization and care.

They fared no better than DRGs and none supported close cooperation between carriers and hospitals. None, in other words, supported the development of true managed care.

The first Professional Standard Review Organizations (PSROs) began in 1972. These were established by the Social Security Amendments of 1972 to 'promote the effective, efficient, and economical delivery of health care services of proper quality for which payments may be made.'[15] PSROs were local physician organizations designed to monitor the necessity, appropriateness and quality of hospital care. PSROs established standards of care for a wide range of diseases, with a goal of treatment practice uniformity – rather like guilds.

These organizations were quite ineffective. Local physicians, it turned out, were generally reluctant to judge or punish their colleagues. PSROs created dilemmas for physicians who observed questionable quality or potentially excessive treatment in others. Should they report on physicians who unnecessarily bring patients into the hospital - but increase everyone's income? Should they be team players? Or should they fight other physicians and hospital administrators and create political or professional problems for themselves?

Most physicians decided their interests – financial and professional - lay in getting along with their colleagues rather than reporting on them. Hence PSROs failed to have much impact on US medical quality.

Regulators grasped this problem and modified the PSRO concept when creating the next quality control mechanism, the Professional Review Organization (PRO) in 1983. These were private companies, initially contracted by Medicaid. PROs were designed to assure the necessity and appropriateness of Medicaid services by reviewing hospital records for evidence of upcoding, dumping or unbundling of services. PROs established elaborate guidelines and enforcement protocols, again focusing on physicians and hospitals working in a particular locale.

Unfortunately, the process of developing guidelines introduced an even bigger problem - startling variations in medical practice across seemingly similar communities.[16] A famous early study 'Are Hospital Services Rationed in New Haven or Over-Utilized in Boston' reported that rates of certain procedures including coronary artery bypass graft surgery were much higher in New Haven than Boston, but rates of other procedures such as carotid endarterectomy were higher in Boston than New Haven.[17]
Studies such as this[18] suggested the PRO focus was too narrow and that the real hospital quality problem involved treatment variations. These put patients at risk, for some were under-treated while others were over-treated.

Once our medical community realized that treatment variation was a huge healthcare systemic problem, the question arose about how to address it. The medical community decided to continue measuring and controlling treatment inputs – costs, types of procedures, second opinions, etc. (It could, alternatively, have started to measure treatment outcomes – mortality and infection rates for example. The medical community apparently decided these outcome quality measurements were inappropriate, undesirable or too difficult to quantify.)

The exclusive focus on input measurement doomed future quality control programs to failure.

The first such post-PRO program was development of Treatment Guidelines. These had a goal of standardizing medical treatments to control both quality and costs. Treatment guidelines typically provide the medical staff with detailed day-by-day instructions for testing, nursing, surgery, rehabilitation and discharge planning. Guidelines also provide a systemized method of ordering tests.

Unfortunately, contradictory treatment guidelines proliferated. By 1994 the AMA reported over 1600 sets of guidelines designed by potentially competing special interests. Hospital guidelines sometimes said 'treat' (presumably to increase hospital occupancy) while carrier guidelines said 'don't treat' (presumably to control costs). Some guidelines were developed by pharmaceuticals and recommended drug therapy; others by surgical supply manufacturers and recommended surgery. Hospital bureaucracies and physicians often resisted the imposition of guidelines, which ultimately became voluntary and only marginally effective.

Regulators next turned to Utilization Review to overcome the narrow focus of PROs and ambiguity of Treatment Guidelines.

Utilization Review is a screening procedure to determine (a) if the patient should be admitted, (b) surgical second opinions and (c) on-going review of high cost cases.

Independent 'objective' companies perform Utilization Review. These companies have developed best practice criteria. Procedurally, the hospital admissions nurse reports clinical data and a treatment plan to the UR nurse who may agree to hospitalization, recommend outpatient treatment or even refuse the treatment plan. Typically there is also an appeal procedure.

Supporters claim Utilization Review achieves two goals. First, UR companies keep their screening procedures current with the medical literature, something no physician or hospital could possibly do given the hundreds of studies published annually. Second, they claim that UR reduces inpatient costs by reducing unnecessary hospitalizations and treatment.[19]

Detractors see UR as an unwanted intrusion in the physician-patient relationship, with some physicians even lying to get around UR restrictions.[20] Other detractors claim the UR companies have a financial bias to show cost reductions in order to get their contracts renewed. Interestingly this is the opposite of hospitals' financial bias to perform treatments.

Some commentators have concluded that UR has failed to provide the desired level of cost and quality control. The Journal of the American Medical Association reported a 'Retrospective Drug Utilization Review' study in 2003 that concluded 'we were unable to identify an effect of retrospective drug utilization review on…clinical outcomes'.[21] The New England Journal of Medicine reported that a studied utilization review program 'reduced the number of diagnostic and surgical procedures performed that required second opinions…(but) otherwise the program had little effect'.[22] The Canadian Medical Association Journal published a research study 'How valid are utilization review tools in assessing appropriate use of acute care beds?' and found that some UR companies underestimate – while others overestimate – appropriate hospital admission stays.[23] The CMAJ article concluded that

Although utilization review tools are widely accepted, these considerations…raise serious questions about the value of the tools…and whether they should be used at all.

Effects of Cost and Quality Control Programs on Managed Care Development

Some carriers like Utilization Review while others do not. But that misses our point:

None, in other words, mitigate the conflict wrought by DRGs. But all became codified in US healthcare practices post-Nixon. All supported the deviation from true managed care. And all – especially when combined with DRGs - make a return to real 'managed

care' a la Kaiser-Permanente increasingly difficult. The reason: to implement true managed care now, we must first undo all the post-1973 healthcare systemic and bureaucratic evolution based largely on conflict between hospitals and carriers. No small task.

Our 1973 – 2000 experience with managed care did, however, superficially appear somewhat successful. Healthcare spending in 2000 was $300 billion less than had been forecast by the Congressional Budget Office only 7 years earlier.[24] Unfortunately these savings were primarily the result of two features, neither of which appeared in the original managed care plan design:

1. Hospital overcapacity in the 1990s (resulting from overbuilding in the 1980s plus treatment constraints in the 1990s) allowed carriers to gain significant price concessions from providers;
2. Managed care insurance companies controlled costs by service denial: denial of provider payments, denial of specialist referrals, denial of hospital admissions. 'At the peak of managed care's sway, in 1999, far more physicians were financially rewarded for productivity [i.e. number of patients seen] by insurers than for patient satisfaction' claims Harvard Business School's Regina Herzlinger. [25]

Providers hated managed care. Carriers squeezed hospital revenue. Physicians lost control of their incomes and professional independence – in both cases to administrators – largely because of DRGs and Utilization Review. Subscribers hated it for they felt at the mercy of a heartless insurance carrier that denied necessary services for the sake of profit. The popular 2002 film John Q played on these concerns – a father whose insurance company wouldn't pay for his son's medical treatments takes an Emergency Room hostage until doctors agree to operate. John Q could be any American according to the film's marketing; it grossed over $71 million in the first 2 months.

Meanwhile, the US Institute of Medicine in 2001, during the heyday of managed care, released its shattering study 'Crossing the Quality Chasm' claiming

> The US healthcare system does not provide consistent, high quality medical care to all people…between the healthcare that we now have and the healthcare that we could have lies not just a gap, but a chasm…
>
> The nation's healthcare delivery system has fallen far short in it's ability to translate knowledge into practice…

This and other observations led ***The Economist*** to claim that managed care just 'treated the symptoms' – like every other healthcare control strategy. [26]

THE MANAGED CARE PROPONENTS CALL FOUL: The US healthcare system that developed post 1973 was not the healthcare system envisioned or designed by true

managed care proponents. It strayed from their original concept and Kaiser Permanente's model, and thus failed to realize its true potential due to Nixon's political compromises and subsequent market evolution. The proponents called for a return to basics so managed care could finally replicate KP's financial and quality results nationally; they did not want to be blamed for managed care's failure.

Thus Stanford's Alain Enthoven wrote ***The History and Principles of Managed Competition*** and ***Why Managed Care Has Failed to Contain Health Costs*** both in 1993 [27] just as the Clinton administration began considering national healthcare reform…apparently hoping that this time a President would bring his ideas to life. In these back-to-basics pieces Enthoven reminded readers that Nixon had perverted his ideal, creating 'a system dominated by the cost-increasing incentive of fee-for-service payment combined with the cost-unconscious demand of insured patients' whose insurance was paid by employers and subsidized by taxpayers.

US HMOs developed provider networks, Enthoven claimed, simply by cobbling together independent physicians and paying them according to a fee schedule – in other words, IPAs. This was not the Kaiser Permanente model!

Enthoven went on to decry fee-for-service for 11 reasons:

1. Fee-for-service creates an adversarial relationship between doctors and payers;
2. Fee-for-service has little accountability – poor data collection and provider motivations for economy;
3. Fee-for-service 'free choice of provider' leaves patients to make remarkably poorly informed choices;
4. Fee-for-service generates excess hospital capacity, high tech equipment and open-heart surgeries;
5. Fee-for-service generated an excess supply of specialists;
6. Fee-for-service misallocates resources, as no incentive to use the least costly settings for treatment;
7. Fee-for-service has no capacity to plan care processes from diagnosis to treatment to rehabilitation;
8. Fee-for-service has led to a dangerous proliferation of facilities for complex and costly procedures without the volumes necessary to maintain good outcomes;
9. Fee-for-service cannot practice total quality management due to lack of service integration;
10. Fee-for-service cannot organize the rational use of technology
11. Organized systems, unlike fee-for-service, can emphasize prevention, early diagnosis and effective chronic disease management.

He further reiterated how to structure the market by a set of rules 'laid down once and for all.' These include appropriate types of plan sponsors, rules to ensure equity, rules to manage the enrollment process, rules for managing risk selection, rules for

monitoring specialty care and quality, and lots more rules to make the system work. His goal: define a system involving

> Intelligent, active collective purchasing agents contracting with healthcare plans on behalf of a large group of subscribers and continuously structuring and adjusting the market to overcome attempts to avoid price competition.

Any deviation from this ideal system reduces its effectiveness. Groups that dreamt up ways to get around the rules for their own advantage upset Enthoven. He lamented the self centered interests of many involved in healthcare: 'Whatever set of rules one proposes, critics could and did dream up ways for health plans to get around them to their advantage.'

Nixon's HMO Law of 1973 and subsequent healthcare evolution so perverted his managed care ideal that he wrote in *Why Managed Care Has Failed to Contain Health Costs* 'Some say that competition has failed. I say that competition has not yet been tried.'

He described Health Insurance Purchasing Cooperatives as the mechanism of implementing true managed care, just as Hilary Clinton was developing her healthcare plan. Enthoven's *History and Principles* seemed to serve as the intellectual basis to promote true managed care for all.

BILL AND HILARY CLINTON TAKE ON HEALTHCARE

Bill Clinton had campaigned for President on four healthcare platforms:

1. To provide healthcare coverage for all Americans;
2. To slow runaway medical care cost inflation;
3. To minimize governmental intrusion; and
4. To avoid harming most special interest groups. [28]

He delegated responsibility for the specific healthcare plan design to his wife, Hilary. She introduced her plan in mid-September 1993.

The plan itself was broad, ambitious and founded in Enthoven's theories. It would set up one or more large 'healthcare purchasing alliances' in each region. These would restructure the health insurance market by serving as the group purchaser for people not on Medicare, including small and medium sized employers. Large companies with 5000+ employees could act as their own purchaser.

These alliances would manage competition among plans and carriers, along the lines that Enthoven envisioned. They would – theoretically – offer people their choice of health plans and would provide them with competitive information about costs, services and quality. As envisioned by the authors, consumers would have a minimum of 3 plan options, varying by cost-sharing, out of network restrictions and specific services

covered (above the mandated minimums). The alliances' responsibilities would include maintaining competition among plan options so those that operated most efficiently would get rewarded in the marketplace.

The Clinton Plan would require carriers to offer a comprehensive minimum set of benefits including hospital and office care, clinical prevention services, hospice care and home health and long term care. By 2001 it would add mental health and substance abuse services.

The entire healthcare distribution operation would be run by a complex administration including a National Health Board responsible for oversight, budgets and national quality. States would also have responsibility for establishing risk-adjustment procedures, monitoring carrier fiscal stability and monitoring the quality of local care. This combined state and federal administrative effort was deemed necessary to ensure two things:

1. That our healthcare system would function well both during and after the transition to the Clinton Plan; and
2. That Enthoven's dual theories of managed care and managed competition would be made operational.

Hilary Clinton presented her 1000+ page healthcare plan in 1993. For about a year proponents and opponents discussed, debated, analyzed and considered her healthcare plan for America. Articles appeared in learned journals; interest groups spent over $100 million lobbying and campaigning for or against it. Ultimately, in 1994, Congress voted the plan down.

The interesting question from this story is 'why'. Why did the American people – and ultimately Congress – reject Hilary's plan?

Public opinion polling during this period highlighted contradictory and confusing indicators. The American public apparently liked the ideas – while disliking the Clinton plan. Understanding how this can be helps explain the fundamental problem with establishing true managed care in the US.

The Wall Street Journal reported in 1994 that 'Many Don't Realize It's the Clinton Plan They Like'. The article summarized results of a WSJ-NBC news poll asking people their reaction to a health plan that contained the same features as the Clinton plan but without revealing that it actually was the President's. Some 76% found 'some' or 'a great deal' of appeal in Clinton's plan – even while indicating in other polls their opposition to 'the Clinton Healthcare Plan'.

How can people actually like the plans' features while opposing the plan itself? According to former Harvard University President Derek Bok, there are two answers: [29]

First, Americans distrust government imposed solutions to problems;

Second, special interests (intentionally or otherwise) play on popular fears with targeted marketing campaigns.

Bok reports that polls taken during the 1993 – 1994 healthcare debate showed that 80% of the population believed healthcare costs would rise more than the Clintons claimed, including 54% who thought costs would rise 'much more'. Similarly although only 25% of Americans said that they understood what a health alliance actually was, 65% assumed that the President's plan would lead to more bureaucracy. Perhaps the Clintons marketed their plan poorly. But perhaps also, popular distrust of government made their marketing task impossible.

Plan opponents understood this popular sentiment and played on it. The over $100 million spent to lobby the public for or against healthcare reform, according to Bok, 'seemed designed less to inform than to arouse latent fears and anxieties'. He reports on an infamous Harry and Louise TV commercial paid for by the Health Insurance Association of America:

> This plan forces us to buy our insurance through those new mandatory government health alliances,' complained a prototypical wife, Louise... 'Run by tens of thousands of new bureaucrats,' added husband Harry. 'Having choices we don't like is not choice at all,' replied Louise. 'They choose, we lose,' both concluded with evident disapproval.

The University of Pennsylvania's Annenberg School of Communications found that 59% of all TV ads on healthcare reform were misleading, with most attacking rather than advocating one position or the other. Opponents said the Clinton plan was 'involuntary enthanasia' that deprived families of their choice of a doctor. Proponents claimed that 'unless the Clinton plan is passed, million of Americans will have no access to healthcare.' Fearmongering on both sides led less to education and compromise than to rejection amidst a climate of fear and mistrust.

This shows the fundamental problem with the Clinton healthcare plan – the same problem that has plagued every other government attempt to reform healthcare. Government designed, top-down solutions imposed on Americans fail due to the lack of buy-in by participants. Americans, it appears, do not want to be told what kind of healthcare to purchase.

Top-down solutions attempt to impose the values of some group – Stanford academics, Washington liberals, Texas conservatives or whomever – on the rest of Americans. It matters less that the healthcare plan is good or bad; what matters is that it is imposed. Americans need time to evolve solutions to our healthcare problems, to feel comfortable with and to embrace healthcare reform. This is not, as in the Clinton case, a 12 – 15 month process. It is a process in which Americans gain positive experiences necessary to 'buy-in'. (Remember that it took years and years for Garfield to develop the Kaiser-Permanente operation.)

Absent this buy-in, we will, apparently, reject a health plan we like (according to the Wall Street Journal polling data) simply because it is imposed on us.

In short, any attempt to implement reform healthcare need focus at least as strongly on the acceptance process as on the plan itself. At least that appears the major lesson of this story. And popular acceptance is likely a multi-year, long term process.

The Clinton Administration ultimately failed to pass its huge healthcare reform plan. American culture and politics intervened, and for the second time in 20 years an attempt to take Kaiser Permanente national failed. That political debacle led to another 15+ years of fee-for-service healthcare that deviated from the 'true' managed care model, with economic and quality results that harmed Americans.

MANAGED CARE PROPONENTS POST CLINTON REFORMS: The true believers, though, weren't finished yet. In 2002, Enthoven and Laura Tollen edited 'Toward a 21st Century Health System' which again extolled the virtues of Kaiser Permanente. In the Foreword, William Roper, Dean of the University of North Carolina School of Public Health, claimed

> Prepaid group practices have remained the health reform prescription of choice of many in the health policy community…and I proudly put myself among them.

The problem with managed care in the 1980s-1990s, says Roper, was that it was forced on people, which planted the seeds of consumer backlash. Enthoven echoes this in his Preface by stating that 'Patient satisfaction depends a great deal on whether or not the patient became an HMO member voluntarily or involuntarily.' (He apparently had learned from the Clinton's failure.) If only people would want to join prepaid group practices like Kaiser Permanente, then our healthcare system would improve. If only we could diffuse the model, then people would see its successes and want to join.

Chapter 1 of 'Toward a 21st Century…' discusses the two key barriers to diffusion of this model:

1. Lack of a group / corporate culture, and
2. Lack of financial incentives.[30]

Are these surmountable problems? Can the Kaiser Permanente model be successfully replicated? In other words, ***can managed care ever work?***

The Corporate Culture Problem: By the late 1990s, Kaiser Permanente began losing money – some $270 million in 1997 alone. This was due to its rapid growth; some 50% of top managers were new to their positions by the late 1990s, and 20% of them were new to the organization. 'The culture-imbued physicians, the hospitals managed directly by Kaiser, the seasoned insurance officials who worked with the providers to balance healthcare quality and cost, the tense interplay among the three elements of the system

– all were diminished' in this process, suggests Harvard's Herzlinger. Kaiser's membership soared, but it nearly lost its soul in the process. [31]

Remember Sidney Garfield who claimed you need true believers to make prepaid group practices work. He went on to state that 'they aren't going to work unless they get men [and women] who really believe in giving service to the people.' In our market based economy, especially with our post-1973 experiences with DRGs and the like, it's very difficult to hire seasoned, experienced managers, skilled in competition but with the right care-giving, philosophical orientation.

Absent culture, HMOs manage costs by denying claims – not nearly the same as managing health. Even Enthoven agrees that developing a corporate culture takes time, energy and effort – they are 'difficult to develop and slow to grow' [32] - and then still may not succeed. Corporate culture grows from shared experiences and difficulties. You can't recreate Kaiser's culture without its evolutionary past. Absent soul and shared evolution, you're doomed to fail.

This is apparently what happened to Kaiser Permanente during it's failed attempt to expand into North Carolina.[33] KP entered North Carolina in 1984 and exited in 1999, where is operated mainly as a Group Model HMO. It peaked at 134,000 subscribers in 1997. According to the University of North Carolina researchers who studied this expansion, corporate culture problems plagued the enterprise from the beginning:

- KP struggled to find the right balance between giving the North Carolina operation the flexibility and autonomy necessary to respond to local market conditions while maintaining the overall corporate goals and policies. In other words, KP struggled to find the right mix of national corporate culture with local medical culture;
- The original KP – North Carolina leadership was supposed to replicate the California model, not innovate. Managers referred to the 'cookbook formula' imposed from KP headquarters;
- KP – North Carolina managers found it hard enough to build the familiar group model delivery system from scratch under less than hospitable market conditions (i.e. local medical cultural norms and specific state regs) – but found that creating a network model (as demanded by local conditions) so far removed from KP's core competence was impossible;
- Managers reported that KP's flirtation with network models nearly cost the company it's soul;
- KP's expansions into Texas, Kansas City, New York and New England also failed.

The University of North Carolina researchers concluded that this failed expansion case illustrates the difficulties of replicating the vertically integrated model in new geographic markets under different market conditions.

Why Vertical Integration Fails (or the Financial Incentive Problem): In Kaiser Permanente's model the providers and financiers work together for the overall good of patients and the organization. This is vertical integration: the financial and provider functions belong to the same corporation.

Merging these functions together is extraordinarily difficult, especially absent the shared values of a meaningful corporate culture. Hospitals, physicians and financiers have fundamental conflicts:

- Hospitals want high bed occupancy to generate income; carriers want low occupancy to reduce expenses;
- Hospitals want high reimbursements per patient; carriers want low;
- Physicians want high compensation / rewards from hospitals for referrals; hospitals want to pay less
- Hospitals want to make money; carriers want to control premium rates

The financial mechanism that links the insurance function to the provider function is called a transfer price. If the transfer price is too high, then the hospital makes money but the insurance carrier loses – a big problem if the insurance managers are compensated based on profits or if the insurance carrier is publicly traded.

If the transfer price is too low, then the carrier makes money but the hospital loses – and hospital managers face the same problems as carrier managers, above.

If the transfer price is set at market, then why integrate? Remember Enthoven's 11 problems with fee-for-service pricing. At market transfer pricing, there seems little advantage to owning both the financial and delivery systems as you just recreate the problems that you integrated to solve.

Vertical integration, according to McKinsey 'is notoriously difficult to set, easy to get wrong and – when a company does get it wrong – very costly to fix.' [34] Enthoven apparently agrees, claiming that managing true prepaid group practices requires 'wise, if not visionary, leadership, which has been relatively rare in American healthcare in recent years.'[35]

The examples of good vertical integration in Prepaid Group Practices – Kaiser Premanente until the 1980s, Group Health Cooperative in Seattle, HealthPartners in Minneapolis, the Mayo Clinic in Minnesota and others – were formed in a different era. That was before hospitals consolidated, before universities trained students in healthcare administration, before American consumers became accustomed to wide provider choice, before DRGs created billing conflicts between carriers and providers and before the myriad of state and federal healthcare regulations. Senior officials at existing Prepaid Group Practices think that 'without substantial changes to the US financial and regulatory systems, it would be difficult for new PGPs to develop and for many of the current ones to expand' due largely to the difficulty of exporting the entrenched group culture.[36] In this, they are probably correct.

Indeed, the UNC researchers who studied Kaiser Permanente's foray into North Carolina suggest several elements necessary for managed care success.

Key Idea: Elements necessary for managed care success today:

1. Broad choice of health plans, so HMOs can demonstrate their value advantages (financial savings and quality improvements vs. fee-for-service plans);
2. Risk adjustment to mitigate adverse selection;
3. Employer contributions that allow employees to retain any savings resulting from an economical choice;
4. A level playing field among HMOs, insurers and self-funded plans;
5. Reliable, comparable information about plan quality and customer satisfaction.

Unfortunately for managed care, if these are the necessary preconditions, the US healthcare market is far from an appropriate environment. Let's review some of these elements:

First, broad choice of health plans. Our current national trend is for fewer carriers to offer a broader choice of plans with broader provider networks. Many employers (mainly smaller) offer only a limited plan selection, often for reasons of administrative expediency. Subscribers demand wide provider choice, perhaps as reaction to managed care excesses of the 1990s. True managed care options with limited provider access in return for (theoretically) lower premiums and better quality run counter to this national trend.

Second, risk adjustment among health plans. In Enthoven's model carriers will use advanced statistical techniques to determine the likely future health costs of a subscriber, and the managed competition system will make financial arrangements (called risk adjustments) among plans to level the risk playing field. These statistical techniques are not yet available. As Enthoven wrote, not particularly comfortingly, in 1993:

> It turns out to be much harder than one might think to turn available diagnostic information into 'risk adjusters'. For example, among patents diagnosed in one year to have breast cancer or HIV, there will be a very wide variation in medical costs the next year. **But it seems reasonable to suppose that diagnosis-based models eventually will be available** [37]

It may or may not be reasonable to make this supposition – but it is certainly a weak premise upon which to base our healthcare policy.

Third, employer contributions should allow employees to retain savings from choosing a true HMO. Unfortunately a number of factors currently mitigate against this.

Employees generally pay half or less of their premiums on a pre-tax basis. Here's a typical scenario:

Total healthcare monthly premiums = $1000
Employee contribution (33%) = $ 333 to employee
Tax deductibility (at 40% combined state and fed) = $199 net to employee

If the HMO cuts costs by 15% or $150/month versus the competition (quite an outstanding achievement), the employee likely would only see a $30 monthly after tax savings. To take advantage of this small savings, the employee may need to change primary care physician, change benefits and access a smaller provider network. Not very attractive to the employee.

But it creates a huge burden for the managed care organization. Since the employee only pays, effectively, about 20% of the premium after tax, the carrier must generate outstandingly good results to get employees to enroll.

Would the employer allow the employee to keep all the savings as managed care proponents desire? Unclear. Many employers want to reduce their own health insurance burden. One rational response by employers: fix the employee contribution at $199/month, regardless of plan. Then let employees choose among a true managed care option or fee-for-service coverage. The employer would keep any savings generated by the managed care organization.

In sum, our business environment is currently not structured as the managed care proponents require.

Fourth, we need reliable, comparable information about plan quality. This is often called transparency and requires both price and outcome data.

Unfortunately, our healthcare system is extremely poor at collecting and disseminating comprehensible outcome data. We don't, currently, know which providers have the best results, which hospitals have the lowest infection rates or which PCPs have the best diagnostic capabilities. Our healthcare system is evolving in this direction, but we're far from there today.

Thus, the pre-conditions outlined by the UNC researchers do not exist in our healthcare system. They agree by noting two real trends in US health insurance:

- More broad network insurance products divorced from provider systems;
- Policies that emphasize copayments and deductibles at time of purchase rather than cost-conscious choice at time of insurance policy purchase.

Their conclusion: true managed care has structural features – narrow networks and lower premiums – at variance with common employer policies and national trends.

CAN MANAGED CARE WORK IN THE US TODAY? The answer: No, managed care cannot work in the US today. Even supporters see this, as Northwestern's David Dranove wrote in 2002: 'my optimistic view of managed care's potential has wavered. I accept the possibility that managed care will never fulfill its promise.'[37]

We had two major attempts to develop the Kaiser Permanente model as our national healthcare. Nixon and Clinton – both brilliant politicians - failed. If neither of them could do it, then we wonder who could? It's time to move on.

Each attempt to replicate Kaiser Permanente – in North Carolina, for example – led either to failure or to such major changes in the model as to make it unrecognizable.

Furthermore, each political attempt to implement Enthoven's ideas nationally – by Nixon and Clinton – proved disastrous. Special interests force political compromises that drastically alter the ideal model. After 40 years of trying we have clear evidence that our society simply cannot implement true managed care.

Managed care's time has passed. It's now time to move on to other, more fruitful, healthcare reform options.

Review Questions
Answers on next page

1. What is the classic definition of managed care?
    a. Large multispecialty group practices that provide a comprehensive set of healthcare services at a per capita price set in advance
    b. An HMO plan that requires referrals from a primary care provider
    c. A PPO plan that does not require referrals to see a specialist

2. How does managed care differ from indemnity insurance?
    a. Managed care differs from indemnity or fee-for-service health insurance, especially in terms of prevention, cost controls and outcome measurements.
    b. Managed care is far more efficient than indemnity insurance
    c. Indemnity insurance allows more access to specialists than managed care

3. How does managed care differ from single payer healthcare?
    a. Managed care uses competition (i.e. managed competition) to keep prices low and quality high while single payer healthcare generally does not embrace competition.
    b. Managed care is generally less expensive than single payer
    c. Single payer is generally less expensive than managed care

4. How does managed care differ from consumer driven healthcare?
    a. CDHC proponents believe that consumers can make their own healthcare choices. Managed care proponents disagree; they think healthcare is fundamentally unlike other consumer products. They think consumers need help navigating among diagnoses and specialists so require Primary Care Providers to act as advisors and gatekeepers.
    b. Managed care is less expensive than CDHC
    c. CDHC generally has higher deductibles than managed care

5. What is the classic example of a managed care organization?
    a. Massachusetts General Hospital
    b. Blue Cross and Blue Shield
    c. Kaiser Permanente

6. How did Nixon change the Kaiser Permanente model in his HMO Law of 1973?
    a. He did not require vertical integration between finance and service delivery
    b. He required vertical integration between finance and service delivery
    c. He restricted the number of HMOs that any given physician could join

Answers to review questions
Correct answers in bold

1. What is the classic definition of managed care?
   a. Large multispecialty group practices that provide a comprehensive set of healthcare services at a per capita price set in advance
   b. An HMO plan that requires referrals from a primary care provider
   c. A PPO plan that does not require referrals to see a specialist

2. How does managed care differ from indemnity insurance?
   a. Managed care differs from indemnity or fee-for-service health insurance, especially in terms of prevention, cost controls and outcome measurements.
   b. Managed care is far more efficient than indemnity insurance
   c. Indemnity insurance allows more access to specialists than managed care

3. How does managed care differ from single payer healthcare?
   a. Managed care uses competition (i.e. managed competition) to keep prices low and quality high while single payer healthcare generally does not embrace competition.
   b. Managed care is generally less expensive than single payer
   c. Single payer is generally less expensive than managed care

4. How does managed care differ from consumer driven healthcare?
   a. CDHC proponents believe that consumers can make their own healthcare choices. Managed care proponents disagree; they think healthcare is fundamentally unlike other consumer products. They think consumers need help navigating among diagnoses and specialists so require Primary Care Providers to act as advisors and gatekeepers.
   b. Managed care is less expensive than CDHC
   c. CDHC generally has higher deductibles than managed care

5. What is the classic example of a managed care organization?
   a. Massachusetts General Hospital
   b. Blue Cross and Blue Shield
   c. Kaiser Permanente

6. How did Nixon change the Kaiser Permanente model in his HMO Law of 1973?
   a. He did not require vertical integration between finance and service delivery
   b. He required vertical integration between finance and service delivery
   c. He restricted the number of HMOs that any given physician could join

Public Health Insurance

Medicare became law on July 30, 1965, when President Lyndon B. Johnson signed the Social Security Amendments of 1965 into law. The legislation created both the Medicare and Medicaid programs as amendments to the Social Security Act.[78]

Medicare was established to provide health insurance coverage for Americans aged 65 and older, as well as certain younger individuals with disabilities. It was designed to address the growing healthcare needs of older adults and provide them with access to affordable healthcare services. Prior to the establishment of Medicare, many older Americans struggled to afford medical care, leading to significant financial burdens and barriers to accessing necessary healthcare services.

The creation of Medicare was a significant milestone in U.S. healthcare history, marking the federal government's commitment to ensuring access to healthcare for older adults and individuals with disabilities. Since its inception, Medicare has undergone several expansions and reforms to improve coverage and access to care for its beneficiaries, making it one of the most important and widely used healthcare programs in the United States.

Medicare consists of 4 main parts:

1. **Part A (Hospital Insurance)**:
    - Covers inpatient hospital stays, skilled nursing facility care, hospice care, and some home health care services.
    - Most people do not pay a premium for Part A if they or their spouse paid Medicare taxes while working.
2. **Part B (Medical Insurance)**:
    - Covers outpatient care, doctor visits, preventive services, and some medical equipment and supplies.
    - Requires a monthly premium, which can vary depending on income.
3. **Part C (Medicare Advantage)**:
    - Private insurance plans approved by Medicare that provide all Part A and Part B benefits.
    - Often includes additional benefits such as vision, dental, and prescription drug coverage.
    - Plans may have different costs and coverage rules.

[78] Much of this section comes from ChatGPT, written in April 2024.

4. **Part D (Prescription Drug Coverage)**:
    - Helps cover the cost of prescription drugs.
    - Offered by private insurance companies approved by Medicare.
    - Monthly premiums, deductibles, and copayments or coinsurance apply.
5. **Medigap (Medicare Supplement Insurance)**:
    - Sold by private insurance companies to fill "gaps" in Original Medicare coverage, such as copayments, coinsurance, and deductibles.
    - Helps pay for expenses not covered by Original Medicare.
6. **Other Coverage Options**:
    - Some people may qualify for other Medicare programs, such as Medicare Savings Programs or programs for people with specific health conditions.

Overall, Medicare provides essential healthcare coverage for millions of Americans, though it's crucial for individuals to understand the different parts and options available to choose the coverage that best suits their needs.

The Four Components Medicare

Medicare Part A, often referred to as Hospital Insurance, covers a range of inpatient hospital services and certain types of post-hospital care. Here's a more detailed breakdown of what Medicare Part A covers:

1. **Inpatient Hospital Care**:
    - Part A covers semi-private rooms, meals, general nursing, and other hospital services and supplies when you're formally admitted as an inpatient by a doctor.
    - It includes care received in acute care hospitals, critical access hospitals, inpatient rehabilitation facilities, and long-term care hospitals.
2. **Skilled Nursing Facility (SNF) Care**:
    - Part A covers a stay in a skilled nursing facility (SNF) if it's medically necessary following a hospital stay of at least three days.
    - SNF care includes services such as skilled nursing care, rehabilitation services, and other related health services.
3. **Hospice Care**:
    - Part A covers hospice care for individuals with a terminal illness whose life expectancy is six months or less.

- Hospice care includes services like pain relief, symptom management, and emotional and spiritual support for both the individual and their family.

4. **Home Health Care**:
    - Part A covers certain home health services if you're homebound and require skilled nursing care, physical therapy, speech-language pathology services, or continued occupational therapy.
5. **Blood**:
    - Part A covers the cost of the first three pints of blood you receive in a calendar year, or the blood you get as a hospital inpatient during a stay, after you've paid a deductible.

It's important to note that while Medicare Part A covers a significant portion of inpatient hospital services and related care, it doesn't cover everything. For example, it typically doesn't cover private-duty nursing, a private room (unless medically necessary), or personal care items like toothpaste or razors.

Most people don't have to pay a premium for Medicare Part A if they or their spouse paid Medicare taxes while working. However, there are deductibles, coinsurance, and copayments associated with Part A services. It's essential to understand these costs and coverage limitations to make informed decisions about your healthcare needs.

Inpatient hospital care covered by Medicare Part A includes a range of services and supplies necessary for treating acute medical conditions and providing necessary care during a hospital stay. Here are some services that are typically included:

1. **Room and Board**:
    - Coverage for semi-private rooms (unless medically necessary for a private room), meals, and general nursing care.
2. **Nursing Care**:
    - Skilled nursing services provided by registered nurses (RNs) or licensed practical nurses (LPNs) for the management and monitoring of medical conditions.
3. **Medical Services and Supplies**:
    - Physician services, including consultations, exams, and medical procedures performed during the hospital stay.
    - Necessary medical supplies and equipment used during the hospitalization, such as IVs, oxygen, and other medical devices.
4. **Diagnostic Tests and Procedures**:

- Coverage for diagnostic tests, laboratory work, and medical imaging procedures necessary for diagnosing and treating the patient's medical condition.

5. **Surgical Services**:
    - Coverage for medically necessary surgeries performed during the hospital stay, including pre-operative and post-operative care.
6. **Hospital Services**:
    - Coverage for hospital services such as operating rooms, recovery rooms, and emergency room services used during the hospital stay.
7. **Medications**:
    - Coverage for medications administered during the hospitalization, including those administered intravenously or through other means.
8. **Therapies**:
    - Coverage for therapies provided during the hospital stay, such as physical therapy, occupational therapy, and speech-language pathology services.

Services typically excluded from Medicare Part A coverage for inpatient hospital care include:

1. **Personal Comfort Items**:
    - Personal comfort items such as telephone or television services, unless provided as part of the hospital's standard care.
2. **Private Duty Nursing**:
    - Nursing services provided by individuals not employed or contracted by the hospital, unless specifically authorized by Medicare under certain circumstances.
3. **Private Room Charges**:
    - Charges associated with a private room unless medically necessary as determined by the attending physician.
4. **Certain Medical Procedures and Treatments**:
    - Some elective procedures or treatments not deemed medically necessary by Medicare may not be covered.

Medicare Part A covers skilled nursing facility (SNF) care under certain circumstances. A Medicare beneficiary can stay in a skilled nursing facility as long as they meet specific criteria and as long as the care remains medically necessary. Here are the key points regarding Medicare coverage for skilled nursing facility stays:

1. **Qualifying Hospital Stay**:
    - The beneficiary must have a qualifying hospital stay of at least three consecutive days as an inpatient. Observation days do not count toward this requirement.
2. **Medically Necessary Care**:
    - The skilled nursing care must be medically necessary and related to the condition for which the beneficiary was hospitalized.
3. **Skilled Care Requirement**:
    - The care provided in the skilled nursing facility must require skilled nursing or rehabilitation services on a daily basis. This includes services such as physical therapy, occupational therapy, or skilled nursing care.
4. **Coverage Period**:
    - Medicare Part A covers up to 100 days of skilled nursing facility care per benefit period.
    - The first 20 days are covered in full by Medicare.
    - For days 21 through 100, the beneficiary is responsible for a daily coinsurance amount.
5. **Benefit Period**:
    - A benefit period begins the day the beneficiary is admitted to a hospital or skilled nursing facility as an inpatient and ends when they haven't received any inpatient hospital care or skilled nursing care in a skilled nursing facility for 60 consecutive days.
    - If the beneficiary needs skilled nursing care again after the benefit period ends, a new benefit period begins, and they may qualify for another 100 days of coverage.

While Medicare covers skilled nursing facility care for a limited period, it does not cover long-term care services or custodial care (assistance with activities of daily living like bathing, dressing, and eating) in a skilled nursing facility. After Medicare coverage ends, beneficiaries may need to explore other options for long-term care, such as Medicaid or private long-term care insurance, if they require ongoing assistance.

Medicare makes a distinction between skilled nursing care and long-term care based on the level of care required and the specific services provided. Understanding this difference is crucial for Medicare beneficiaries to determine their coverage eligibility. Here's how Medicare distinguishes between skilled nursing care and long-term care:

1. **Skilled Nursing Care**:
    - Skilled nursing care refers to services provided by licensed healthcare professionals, such as registered nurses (RNs) or licensed practical nurses (LPNs), that are necessary for the treatment and management of a medical condition.
    - Skilled nursing care involves services that require the expertise of trained medical professionals and cannot be safely performed by individuals without medical training.
    - Examples of skilled nursing care include wound care, intravenous medication administration, physical therapy, and rehabilitation services following surgery or illness.
2. **Rehabilitation Services**:
    - Medicare covers skilled nursing facility care when it is primarily for skilled nursing or rehabilitation services on a daily basis. This includes services such as physical therapy, occupational therapy, or speech-language pathology services that are needed to improve the beneficiary's condition or help them regain function.
3. **Time-Limited Care**:
    - Skilled nursing care provided under Medicare is typically time-limited and intended to help the beneficiary recover from an acute illness, injury, or surgical procedure.
    - Medicare Part A covers up to 100 days of skilled nursing facility care per benefit period, with the understanding that the care is expected to result in improvement or stabilization of the beneficiary's condition.
4. **Long-Term Care**:
    - Long-term care refers to assistance with activities of daily living (ADLs) and other support services that are needed on an ongoing basis due to chronic illness, disability, or advanced age.
    - Long-term care includes services such as assistance with bathing, dressing, eating, toileting, and mobility, as well as supervision and assistance with medications.

- Medicare does not generally cover long-term care services, as they are considered custodial care and not primarily skilled nursing or rehabilitative services.

Medicare Part B, also known as Medical Insurance, covers a wide range of outpatient services, preventive care, and medically necessary services that are not covered by Medicare Part A. Here's an overview of what Medicare Part B covers:

1. **Doctor Visits and Services**:
    - Coverage for visits to doctors, including primary care physicians, specialists, and other healthcare providers.
    - Services provided during doctor visits, such as physical exams, consultations, and evaluations.
2. **Outpatient Care**:
    - Coverage for outpatient medical services and procedures received outside of a hospital setting.
    - This includes services such as lab tests, X-rays, diagnostic imaging, and outpatient surgeries.
3. **Preventive Care**:
    - Coverage for preventive services to help prevent illness or detect health problems early when they are most treatable.
    - Examples include flu shots, vaccines, screenings for various conditions (e.g., cancer screenings, mammograms, colonoscopies), and counseling services.
4. **Durable Medical Equipment (DME)**:
    - Coverage for durable medical equipment prescribed by a doctor for use at home.
    - Examples include wheelchairs, walkers, oxygen equipment, and hospital beds.
5. **Ambulance Services**:
    - Coverage for emergency and non-emergency ambulance transportation to a hospital or other medical facility when medically necessary.
6. **Outpatient Mental Health Services**:
    - Coverage for outpatient mental health services, including individual and group therapy sessions, counseling, and psychiatric evaluations.

7. **Outpatient Rehabilitation Services**:
    - Coverage for outpatient therapy services, including physical therapy, occupational therapy, and speech-language pathology services.
8. **Some Prescription Drugs**:
    - Limited coverage for certain outpatient prescription drugs that cannot be self-administered and are typically administered by a healthcare provider.
9. **Some Preventive Medications**:
    - Coverage for certain preventive medications, such as certain vaccines (e.g., flu shots) and injectable osteoporosis drugs.
10. **Clinical Research Studies**:
    - Coverage for certain costs associated with participating in approved clinical research studies.

While Medicare Part B covers many services, beneficiaries are generally responsible for paying a monthly premium, an annual deductible, and coinsurance or copayments for covered services. Additionally, not all services are covered at 100%, so beneficiaries may have out-of-pocket costs associated with their care.

> What are some physician or outpatient services that typically are not covered by Medicare?

While Medicare Part B covers a wide range of physician and outpatient services, there are certain services and expenses that are typically not covered by Medicare. These may include:

1. **Routine Dental Care**: Medicare does not cover most routine dental care, including cleanings, fillings, extractions, dentures, and dental plates.
2. **Routine Vision Care**: Medicare does not cover routine eye exams for eyeglasses or contact lenses. However, it does cover some vision-related services if they are deemed medically necessary, such as exams for diabetic retinopathy or glaucoma.
3. **Routine Hearing Care**: Medicare does not cover routine hearing exams or hearing aids. However, it may cover diagnostic hearing and balance exams if they are ordered by a doctor for the evaluation of a suspected medical condition.
4. **Cosmetic Procedures**: Medicare does not cover cosmetic procedures or surgeries performed solely for cosmetic purposes. This includes procedures such as cosmetic surgery, Botox injections for wrinkles, and hair transplants.

5. **Acupuncture**: While acupuncture may be considered an alternative therapy for certain medical conditions, Medicare typically does not cover acupuncture treatments.
6. **Long-Term Care**: Medicare does not cover custodial or long-term care services, such as assistance with activities of daily living (e.g., bathing, dressing, eating) provided in a nursing home or at home.
7. **Over-the-Counter Medications**: Medicare does not cover most over-the-counter medications, vitamins, or supplements, even if they are recommended by a doctor.
8. **Alternative Medicine**: Medicare generally does not cover alternative or complementary medicine services, such as chiropractic care, massage therapy, or herbal supplements.
9. **Medical Services Outside the United States**: Except in certain limited circumstances, Medicare does not cover medical services received outside of the United States.
10. **Experimental or Investigational Procedures**: Medicare typically does not cover services or treatments that are considered experimental or investigational and not proven to be effective.

How can a Medicare beneficiary get access to these services? Specifically, how can a beneficiary get financial coverage for these?

Medicare beneficiaries seeking coverage for services that are not covered by traditional Medicare Part A and Part B have a few options to explore alternative coverage or financial assistance:

1. **Medicare Advantage (Part C) Plans**:
    - Medicare Advantage plans are offered by private insurance companies approved by Medicare. These plans provide all of the benefits covered by Medicare Part A and Part B and often include additional benefits beyond what Original Medicare covers.
    - Many Medicare Advantage plans offer coverage for services such as routine dental care, vision care, and hearing care that are not covered by Original Medicare.
    - Some Medicare Advantage plans also offer coverage for services like acupuncture, chiropractic care, and fitness programs that are not covered by traditional Medicare.
    - Beneficiaries should review the specific benefits and costs associated with each Medicare Advantage plan to determine if it meets their needs.

2. **Medicare Supplement Insurance (Medigap)**:
    - Medigap plans are supplemental insurance policies sold by private insurance companies to help fill the "gaps" in Original Medicare coverage, such as copayments, coinsurance, and deductibles.
    - While Medigap plans do not typically cover services that are not covered by Medicare, they can help beneficiaries pay for out-of-pocket costs associated with covered services.
    - Some Medigap plans may offer additional benefits beyond what Original Medicare covers, such as coverage for foreign travel emergencies.
3. **Other Insurance Coverage**:
    - Some beneficiaries may have access to other insurance coverage through employer-sponsored plans, retiree health plans, or union plans that offer coverage for services not covered by Medicare.
    - Veterans may be eligible for coverage through the Department of Veterans Affairs (VA) for certain healthcare services not covered by Medicare.
4. **State and Local Assistance Programs**:
    - Some states offer assistance programs that provide coverage or financial assistance for services not covered by Medicare, such as prescription drugs, dental care, and vision care.
    - Beneficiaries can contact their State Health Insurance Assistance Program (SHIP) or State Medicaid office to inquire about available assistance programs in their area.
5. **Out-of-Pocket Payment**:
    - In some cases, beneficiaries may need to pay out-of-pocket for services that are not covered by Medicare or other insurance plans.
    - Beneficiaries can explore payment options with healthcare providers, such as setting up payment plans or negotiating discounted rates for services.

Medicare Part C, also known as Medicare Advantage, is an alternative way for Medicare beneficiaries to receive their Medicare benefits through private insurance plans approved by Medicare. Unlike traditional Medicare (Parts A and B), which is administered by the federal government, Medicare Advantage plans are offered by private insurance companies that contract with Medicare to provide all of the beneficiary's Part A and Part B benefits.

Here are some key features of Medicare Part C or Medicare Advantage:

1. **All-in-One Coverage**:

- Medicare Advantage plans provide all of the benefits covered by Medicare Part A (Hospital Insurance) and Part B (Medical Insurance), and often include additional benefits beyond what Original Medicare covers.
- These additional benefits may include coverage for prescription drugs (Part D), routine dental care, vision care, hearing aids, and wellness programs.

2. **Variety of Plan Options**:
    - Medicare Advantage plans come in various types, including Health Maintenance Organizations (HMOs), Preferred Provider Organizations (PPOs), Private Fee-for-Service (PFFS) plans, Special Needs Plans (SNPs), and Medicare Medical Savings Account (MSA) plans.
    - Each plan type has different rules and restrictions regarding network providers, out-of-pocket costs, and coverage limitations.
3. **Managed Care Approach**:
    - Many Medicare Advantage plans use a managed care approach to healthcare delivery, which may involve network restrictions and requirements for referrals to see specialists.
    - HMOs typically require beneficiaries to use network providers and obtain referrals from a primary care physician to see specialists.
    - PPOs offer more flexibility in provider choice but may have higher out-of-pocket costs for services received out of network.
4. **Annual Enrollment Period**:
    - Beneficiaries can enroll in or switch Medicare Advantage plans during the annual Medicare Open Enrollment Period, which runs from October 15 to December 7 each year.
    - Some beneficiaries may also be eligible for special enrollment periods based on certain qualifying events, such as moving to a new area or losing other coverage.
5. **Premiums and Cost-Sharing**:
    - Medicare Advantage plans may have premiums in addition to the standard Medicare Part B premium, although some plans offer $0 premium options.
    - Beneficiaries are still responsible for paying their Medicare Part B premium, as well as any copayments, coinsurance, and deductibles associated with their Medicare Advantage plan.
6. **Coverage Limitations**:

- While Medicare Advantage plans must provide at least the same level of coverage as Original Medicare, they may have different rules, restrictions, and coverage limitations.
- Beneficiaries should carefully review the benefits and costs of each Medicare Advantage plan to ensure it meets their healthcare needs and budget.

Medicare Part C has become increasingly popular among Medicare beneficiaries for several reasons:

1. **All-in-One Coverage**:
    - Medicare Advantage plans often provide comprehensive coverage that includes all the benefits of Original Medicare (Parts A and B), along with additional benefits such as prescription drug coverage (Part D), dental, vision, and hearing benefits, wellness programs, and sometimes even gym memberships.
    - This all-in-one coverage simplifies healthcare management for beneficiaries by consolidating their coverage into a single plan.
2. **Cost Savings**:
    - Medicare Advantage plans may offer lower out-of-pocket costs compared to Original Medicare, including lower deductibles, copayments, and coinsurance.
    - Many Medicare Advantage plans have annual out-of-pocket maximums, providing financial protection for beneficiaries in case of significant medical expenses.
    - Some Medicare Advantage plans offer $0 monthly premiums, providing an affordable option for beneficiaries on a fixed income.
3. **Additional Benefits**:
    - Medicare Advantage plans often offer additional benefits beyond what Original Medicare covers, such as vision, dental, and hearing benefits, which can be particularly appealing to beneficiaries who need these services.
    - Many plans also offer wellness programs, preventive care services, and access to telehealth services, which can help beneficiaries stay healthy and manage chronic conditions more effectively.
4. **Provider Networks**:

- While some Medicare Advantage plans have restrictive provider networks, others offer broader networks or even out-of-network coverage in certain circumstances, providing beneficiaries with flexibility in choosing their healthcare providers.
- Beneficiaries who prefer having a primary care physician to coordinate their care may find the managed care approach of Medicare Advantage appealing.

5. **Value-Added Services**:
    - Some Medicare Advantage plans offer value-added services such as care coordination, disease management programs, transportation assistance, and home health services, which can improve the overall quality of care for beneficiaries.
6. **Annual Enrollment Period**:
    - The annual Medicare Open Enrollment Period provides beneficiaries with an opportunity to review and change their Medicare coverage each year, including switching to a Medicare Advantage plan if it better meets their needs.
7. **Market Competition**:
    - Medicare Advantage plans are offered by private insurance companies competing for beneficiaries' business, leading to innovation, improved benefits, and enhanced customer service.
    - The availability of a wide range of plan options allows beneficiaries to choose a plan that best suits their individual healthcare needs and preferences.

Still, some 35% of Medicare beneficiaries remain in traditional Medicare for several reasons.

1. **Freedom of Provider Choice**:
    - Original Medicare allows beneficiaries to see any healthcare provider who accepts Medicare, without the need for referrals or obtaining permission from a primary care physician.
    - Some beneficiaries prefer the flexibility of choosing their healthcare providers, including specialists and hospitals, without restrictions imposed by network limitations.
2. **Predictable Coverage**:

- Original Medicare provides standardized coverage, making it easier for beneficiaries to understand their benefits and costs.
- While copayments, coinsurance, and deductibles still apply, beneficiaries may appreciate the transparency and predictability of costs associated with Original Medicare.

3. **Consistency of Coverage**:
    - Original Medicare coverage remains consistent regardless of where beneficiaries live or travel within the United States.
    - Beneficiaries who frequently travel or live in multiple states may find Original Medicare more convenient than Medicare Advantage plans, which may have limited provider networks or coverage areas.
4. **Access to Specialists**:
    - Some beneficiaries with complex medical conditions or specialized healthcare needs may prefer Original Medicare because it allows them to see specialists without requiring referrals or network restrictions.
    - Original Medicare generally offers more flexibility in accessing specialized care, which can be important for individuals with chronic or serious health conditions.
5. **Supplemental Coverage Options**:
    - Beneficiaries who choose Original Medicare can supplement their coverage with a Medicare Supplement Insurance (Medigap) policy to help cover out-of-pocket costs, such as deductibles, copayments, and coinsurance.
    - Medigap plans offer standardized benefits across different insurance companies, providing beneficiaries with additional financial protection and peace of mind.
6. **Preference for Fee-for-Service Model**:
    - Some beneficiaries prefer the fee-for-service model of Original Medicare, where healthcare providers are paid for each service rendered, rather than the managed care approach of Medicare Advantage plans.
    - Fee-for-service Medicare allows beneficiaries to have more control over their healthcare decisions and treatment options.
7. **Concerns About Plan Stability**:

- Medicare Advantage plans may change their benefits, provider networks, premiums, and formularies annually, which can be a concern for beneficiaries who prefer the stability and consistency of Original Medicare.

8. **Lack of Availability**:
    - In some areas, particularly rural or underserved areas, there may be limited availability of Medicare Advantage plans, making Original Medicare the only viable option for beneficiaries.

Some beneficiaries may prefer the flexibility, consistency, and freedom of choice provided by Original Medicare. The decision to remain in traditional Medicare versus enrolling in Medicare Advantage is highly individual and depends on each beneficiary's healthcare needs, preferences, and priorities.

Medicare Part D is the prescription drug coverage component of Medicare. It was introduced as part of the Medicare Modernization Act of 2003 and became effective in 2006. Part D is designed to help Medicare beneficiaries afford the costs of prescription drugs, whether they are taken at home or administered in a clinical setting. Here are the key features of Medicare Part D:

1. **Coverage through Private Insurance Plans**:
    - Medicare Part D is provided through private insurance plans approved by Medicare. These plans are offered by insurance companies and other private companies that contract with Medicare.
    - Beneficiaries can choose from a variety of Part D plans available in their area, each offering a different list of covered drugs (formulary), premiums, deductibles, and copayments or coinsurance.
2. **Prescription Drug Formulary**:
    - Each Medicare Part D plan maintains a formulary, which is a list of covered prescription drugs. Formularies vary between plans and can change from year to year.
    - Part D plans are required to cover at least two drugs in each therapeutic category and class, ensuring beneficiaries have access to a range of treatment options.
3. **Annual Enrollment Period**:
    - Beneficiaries can enroll in or make changes to their Medicare Part D coverage during the annual Medicare Open Enrollment Period, which runs from October 15 to December 7 each year.

- Outside of this period, beneficiaries may be eligible for a Special Enrollment Period if they experience certain qualifying events, such as losing other prescription drug coverage.

4. **Premiums and Cost-Sharing**:
    - Beneficiaries typically pay a monthly premium for Medicare Part D coverage, in addition to any premiums they pay for Medicare Part A (if applicable) and Part B.
    - Part D plans also have an annual deductible, which beneficiaries must pay out-of-pocket before their plan begins to cover prescription drug costs.
    - After meeting the deductible, beneficiaries typically pay a copayment or coinsurance for each prescription filled, and the plan covers the remaining cost.
5. **Coverage Gap (Donut Hole)**:
    - Until recently, Medicare Part D included a coverage gap, often referred to as the "donut hole," where beneficiaries had to pay a larger share of their prescription drug costs.
    - However, due to changes in the Affordable Care Act, the coverage gap has been gradually closing. As of 2021, beneficiaries only pay 25% of the cost of their brand-name drugs and 25% of the cost of generic drugs while in the coverage gap.
    - The coverage gap will be fully phased out by 2024, at which point beneficiaries will pay no more than 25% of the cost of their drugs, both generic and brand-name, until they reach catastrophic coverage.
6. **Catastrophic Coverage**:
    - Once a beneficiary's out-of-pocket spending on prescription drugs reaches a certain threshold, they qualify for catastrophic coverage. At this point, they pay a reduced copayment or coinsurance for covered drugs for the remainder of the year.

Medicare Part D provides essential prescription drug coverage for millions of Medicare beneficiaries, helping them afford the medications they need to manage chronic conditions, prevent illness, and improve their overall health and well-being.

The George W. Bush administration proposed and championed Medicare Part C (Medicare Advantage) and Part D (Prescription Drug Coverage) as part of the Medicare Modernization Act of 2003. There were several reasons behind the decision to propose these additions to Medicare:

1. **Addressing Rising Prescription Drug Costs**:

- One of the primary motivations for introducing Medicare Part D was to address the rising costs of prescription drugs for Medicare beneficiaries.
- Prescription drug coverage was seen as a critical component of comprehensive healthcare coverage, particularly as prescription drug costs were becoming increasingly burdensome for seniors and individuals with disabilities.

2. **Expanding Medicare Coverage Options**:
    - Medicare Part C (Medicare Advantage) was introduced to provide beneficiaries with more choices and flexibility in how they receive their Medicare benefits.
    - Medicare Advantage plans, offered by private insurance companies, were intended to offer additional benefits and services beyond what Original Medicare covers, such as prescription drug coverage, dental, vision, and wellness programs.
3. **Promoting Competition and Market-Based Solutions**:
    - The Bush administration favored market-based solutions and competition to improve efficiency and drive down costs in healthcare.
    - By introducing Medicare Advantage and Part D, the administration aimed to encourage competition among private insurance plans, leading to innovation, improved benefits, and better value for beneficiaries.
4. **Political and Legislative Priorities**:
    - The proposal for Medicare Part D and Medicare Advantage was part of the broader legislative agenda of the Bush administration, which sought to enact significant reforms in healthcare and social policy.
    - Medicare Part D and Medicare Advantage were ultimately included in the Medicare Modernization Act of 2003, which was passed by Congress and signed into law by President Bush in December 2003.

Overall, the introduction of Medicare Part C (Medicare Advantage) and Part D (Prescription Drug Coverage) was driven by a combination of factors, including the need to address rising prescription drug costs, expand coverage options for beneficiaries, promote market competition, and advance the administration's legislative priorities in healthcare reform.

Medicare is generally quite popular among its beneficiaries. Surveys and polls consistently show high levels of satisfaction with Medicare among older adults and individuals with disabilities who are enrolled in the program. According to data from the

Centers for Medicare & Medicaid Services (CMS), the vast majority of Medicare beneficiaries express satisfaction with their coverage and access to care.

Here are some key factors contributing to the popularity of Medicare among beneficiaries:

1. **Comprehensive Coverage**:
    - Medicare provides comprehensive healthcare coverage, including hospital insurance (Part A), medical insurance (Part B), and prescription drug coverage (Part D), as well as options for supplemental coverage through Medicare Advantage (Part C) and Medigap plans.
    - The breadth of coverage offered by Medicare helps ensure that beneficiaries have access to essential healthcare services without facing significant financial barriers.
2. **Provider Choice**:
    - Medicare beneficiaries have the freedom to choose their healthcare providers, including doctors, specialists, hospitals, and other healthcare facilities.
    - The ability to see the providers of their choice without needing referrals or obtaining permission from a primary care physician is highly valued by many beneficiaries.
3. **Affordability**:
    - While beneficiaries may still have out-of-pocket costs such as premiums, deductibles, and coinsurance, Medicare generally offers more affordable coverage options compared to private insurance plans, particularly for older adults and individuals with pre-existing health conditions.
4. **Stability and Reliability**:
    - Medicare is a longstanding and well-established program with a strong track record of providing healthcare coverage to millions of Americans.
    - The stability and reliability of Medicare contribute to its popularity and trustworthiness among beneficiaries.

Comparatively, private insurance plans vary widely in popularity among subscribers, depending on factors such as plan features, network coverage, cost, and individual preferences. While some individuals may prefer the flexibility and additional benefits offered by private insurance plans, others may find that Medicare provides more comprehensive coverage and greater peace of mind, particularly as they age and their healthcare needs become more complex.

How Medicare is Funded

Medicare is funded through a combination of general revenue contributions, payroll taxes, beneficiary premiums, and other sources. Here's an overview of how Medicare is funded:

1. **Payroll Taxes**:
    - The largest source of funding for Medicare comes from payroll taxes paid by employees and employers under the Federal Insurance Contributions Act (FICA).
    - The Medicare payroll tax is composed of two parts: the Hospital Insurance (HI) tax and the Supplementary Medical Insurance (SMI) tax.
    - The HI tax funds Medicare Part A (Hospital Insurance), while the SMI tax funds Medicare Part B (Medical Insurance) and Medicare Part D (Prescription Drug Coverage).
2. **General Revenue Contributions**:
    - Medicare Part A (Hospital Insurance) is primarily funded through payroll taxes, but it also receives contributions from general revenues to cover any shortfalls in funding.
    - General revenue contributions help ensure that Medicare Part A remains adequately funded to cover the costs of hospital and inpatient care for beneficiaries.
3. **Beneficiary Premiums**:
    - Medicare beneficiaries also contribute to the funding of Medicare through premiums for certain parts of the program.
    - Most beneficiaries do not pay premiums for Medicare Part A if they or their spouse paid Medicare taxes while working. However, beneficiaries may be required to pay premiums for Medicare Part B (Medical Insurance) and Medicare Part D (Prescription Drug Coverage).
    - Premiums for Medicare Part B and Part D are set annually and may vary depending on factors such as income level and enrollment status.
4. **Medicare Advantage Payments**:
    - Medicare Advantage plans receive payments from the federal government to provide Medicare-covered benefits to beneficiaries enrolled in their plans.

- These payments are based on a complex formula known as the Medicare Advantage capitated payment system, which takes into account factors such as beneficiary demographics, health status, and regional costs.

5. **Other Sources**:
    - In addition to payroll taxes, general revenue contributions, and beneficiary premiums, Medicare may receive funding from other sources, such as interest earned on the Medicare trust funds, state contributions to the Medicaid program (which helps cover some Medicare costs for dually eligible beneficiaries), and certain taxes on high-income individuals.

Medicare cost about $929 billion in 2021, or about $13,000 per beneficiary. The cost per beneficiary has been increasing at a slower rate than overall inflation and private insurance costs over the past 5-8 years. Here are some key points:

- According to data from the Centers for Medicare & Medicaid Services (CMS), Medicare costs per beneficiary grew by about 2-3% annually from 2015 to 2022. This is well below the overall inflation rate during this period.
- Specifically, Medicare spending per beneficiary increased 2.3% in 2021 and 2.9% in 2022, while overall inflation was around 7-9% those years.
- In comparison, private health insurance premiums for employer-sponsored family coverage increased around 4-6% annually from 2015-2022 according to the Kaiser Family Foundation.
- The slower growth in Medicare costs is attributed to payment reforms, increased use of cheaper generic drugs, and delivery system reforms encouraging more cost-effective care.
- However, Medicare costs are expected to rise more rapidly in the coming years due to an aging population and rising healthcare costs overall.

Medicare's funding situation has been a longstanding issue of concern. The program currently gets funding from three main sources:

- Payroll taxes
- Premiums paid by beneficiaries
- General revenues from the federal government

There are two separate trust funds - one for Hospital Insurance (Part A, covering inpatient hospital care) and one for Supplementary Medical Insurance (Parts B and D, covering outpatient care and prescription drugs).

The often-cited projection that the Medicare Hospital Insurance Trust Fund will be depleted or "run out of money" in around 7 years (specifically 2028 according to the

latest Medicare Trustees report) does not mean Medicare itself is going bankrupt or will cease operating altogether.

What it means is that the Hospital Insurance Trust Fund's reserves will be depleted by 2028 based on current income and expenditure projections. After 2028, income to the fund from payroll taxes and other revenue would cover only 90% of projected Part A costs.

The Supplementary Medical Insurance Trust Fund is expected to remain adequately financed into the indefinite future because its funding can be adjusted through changes in premiums and general revenue contributions.

However, shoring up the financial condition of the Hospital Insurance Trust Fund will likely require significant legislative reforms by Congress, such as increasing payroll taxes allocated to Medicare, reducing expenditures through further cost-saving measures, or supplementing the fund with general revenues.

Here are some key points to consider:

1. **Trust Fund Depletion**:
    - The Medicare Trustees issue annual reports that project the financial status of the HI Trust Fund based on revenue and expenditure projections. These reports include estimates of when the trust fund will be depleted if current trends continue.
    - The projected depletion date has fluctuated over time due to various factors such as changes in healthcare costs, enrollment trends, economic conditions, and legislative changes.
2. **Impact on Benefits**:
    - If the HI Trust Fund were to be depleted, it would not mean that Medicare benefits would disappear entirely. Instead, it would mean that the trust fund would no longer have sufficient funds to cover all of its obligations fully.
    - In the event of trust fund depletion, Medicare Part A would still be able to pay a portion of its costs through ongoing revenue from payroll taxes and other sources, but benefits might need to be reduced, or additional funding sources might need to be allocated to cover the shortfall.
3. **Need for Policy Changes**:
    - The projected depletion of the HI Trust Fund underscores the need for policy changes to address the long-term financial sustainability of the Medicare program.

- Potential policy solutions to address trust fund depletion include increasing revenue through payroll taxes or other sources, reducing expenditures through benefit reforms or cost-saving measures, improving the efficiency of healthcare delivery, and implementing measures to address the underlying drivers of healthcare costs.

Measuring Medicare's Outcomes

The easiest way to measure a healthcare system's outcomes or quality is by measuring life expectancy. I like this admittedly imperfect metric for a couple of reasons:

- The data are relatively easy to access.
- Life expectancy generally improves in lock-step with a healthcare system. A well functioning system generally will generate longer life expectancies than a poorly functioning one.
- Life expectancy data also include variables that a narrowly defined medical care system might miss. Access to healthy foods, for example, probably play a life expectancy role. This suggests that a well functioning healthcare system should address the population's nutritional needs, not just their acute care needs.

Let's compare American life expectancies at age 65 to other countries.[79]

- For American men who survived to age 65 in 2021, their remaining life expectancy was around 18.1 years.
- For American women at age 65, remaining life expectancy was around 20.6 years in 2021.
- This places the U.S. below the average among OECD countries for life expectancy at age 65. For example, a 65-year-old man in Switzerland could expect to live around 19.8 more years on average.

Some key comparisons on life expectancy at birth and age 65 from 2021 OECD data:

- Switzerland: 81.1 years at birth, 21.1 remaining at age 65
- Norway: 82.7 years at birth, 20.3 remaining at 65
- Australia: 83.3 years at birth, 21.1 remaining at 65
- Canada: 82.2 years at birth, 21.3 remaining at 65
- United States: 77.0 years at birth, 18.5 remaining at 65

The correlation between life expectancy and overall healthcare system quality is complex, as life expectancy can be influenced by many socioeconomic and

[79] This section comes from Claude.ai, April 2024

environmental factors beyond just the healthcare system itself. However, most research suggests there is a meaningful but moderate correlation.

- Access to high-quality healthcare is undoubtedly a key determinant of life expectancy, especially through prevention and effective management of chronic diseases that affect mortality.
- Countries that rank highly on measures of healthcare access, affordability, and clinical outcomes tend to have higher life expectancies on average.

However, factors like poverty, education levels, diet, rates of smoking/obesity, air pollution, and income inequality also significantly impact life expectancy independently of healthcare.

Statistical analysis estimates that differences in healthcare system performance may account for around 25-40% of the life expectancy gap between the U.S. and other wealthy nations.

The remaining gap is attributed to the socioeconomic, environmental, and behavioral factors prevalent in the U.S. population.

Within countries, individuals with higher incomes and better healthy behaviors tend to experience longer life expectancies, even with similar healthcare access.

That's why I suggest that life expectancy is a good but definitely imperfect measure of Medicare's quality.

Summary

Medicare has been one of the most significant and impactful social programs in American history since its establishment in 1965.

What Medicare Accomplished:

- Provided access to health insurance for millions of elderly Americans age 65+ who previously could not afford or qualify for private coverage.
- Helped dramatically reduce elderly poverty and financial insecurity by covering major hospital and medical expenses.
- Improved access to preventive services and treatment for the elderly population.
- Along with Medicaid, helped desegregate some hospitals that previously refused Black patients.
- Established a national health insurance model and system that other programs like Medicaid and CHIP were built upon.

How Medicare Changed the World:

- Served as a model for other nations to establish universal healthcare programs for their citizens.
- Shifted the physician reimbursement system and expanded the role of private health insurance companies as contractors.
- Created a massive new sector of the economy around the administration of government-funded health insurance.
- Facilitated the integration of new medical technologies and drugs by covering them nationwide.
- Demonstrated how a large social insurance program could be successfully implemented and administered.

Overall Quality and Impact:

- While not perfect, Medicare has been incredibly successful in providing essential health coverage to the elderly.
- It remains one of the most popular and solidly supported government programs in American public opinion.
- Medicare has greatly improved quality of life and financial security for tens of millions of American seniors.
- However, its long-term financial sustainability remains an ongoing challenge that may require reforms.

Overall, Medicare drastically improved access to healthcare for America's senior citizens, served as a model for other countries, fundamentally changed the healthcare system's economics, and continues to provide vital health security today despite future financing concerns.

A word about Medicaid

Medicaid fills critical gaps in health coverage for tens of millions of America's most vulnerable low-income populations.[80] It is a joint federal and state program that provides health coverage to low-income Americans. Here's an overview of this major government health insurance program:

Purpose & Eligibility:

- Medicaid's main purpose is to provide health coverage for low-income adults, children, pregnant women, elderly adults, and people with disabilities.
- Eligibility is based on income level, which must be below a certain federal poverty line threshold. This threshold varies by state.

[80] Much of this section comes from Claude ai.

- As of 2022, over 83 million Americans were enrolled in Medicaid and the related Children's Health Insurance Program (CHIP).

Benefits Covered:

- Mandatory benefits covered by all state programs include inpatient/outpatient hospital services, physician services, laboratory/x-ray services, and early and periodic screening for children.
- States can choose to provide additional optional benefits like prescription drug coverage, physical therapy, dental, vision, and others.

Funding:

- Medicaid is funded jointly by the states and the federal government.
- The federal government pays states a matching rate (averaged 64% in 2020) based on the state's per capita income.
- Total Medicaid spending was over $670 billion in 2020.

Program Administration:

- Medicaid is a federal-state partnership program. The states administer their own Medicaid programs while following federal guidelines.
- This allows for state flexibility in program rules, benefits, eligibility, and provider payments.

Impact:

- Medicaid covers a large share of low-income children, pregnant women, seniors in nursing homes, and people with disabilities.
- It helps provide services that promote care in home/community settings rather than institutions.
- Critics argue for more uniformity across state programs and better cost control measures.

Medicaid generally provides more comprehensive benefits particularly for long-term care services. Here’s a brief summary of benefits in both programs:

Medicare Benefits:

- Hospital Insurance (Part A) - Inpatient hospital care, skilled nursing facility care, hospice, home health services
- Medical Insurance (Part B) - Physician services, outpatient care, preventive services, durable medical equipment

- Prescription Drug Coverage (Part D) - Outpatient prescription drugs
- Medicare Advantage (Part C) - Managed care plans that provide Parts A, B and usually D

Medicaid Benefits:

- Inpatient/outpatient hospital services
- Physician/certified nurse practitioner services
- Lab/x-ray services
- Nursing facility/home health care services for over 21
- Early periodic screening, diagnosis and treatment for under 21
- Family planning services
- Rural health clinic/FQHC services
- Transportation to medical care

Additionally, states can choose to provide optional Medicaid benefits like:

- Prescription drugs
- Rehabilitation services
- Personal care services
- Dental, vision, physical therapy and other therapies

Key Differences:

- Medicaid provides more comprehensive long-term care coverage
- Medicaid covers a broader range of benefits like dental, vision, therapies that Medicare does not
- But Medicaid varies significantly by state, while Medicare benefits are nationally uniform
- Lower-income Medicare beneficiaries can have Medicaid as a supplement

Medicaid generally provides more comprehensive benefits particularly for long-term care services and non-medical benefits that promote overall health for low-income populations.

Medicaid’s financial strength and sustainability are an ongoing issue of concern, though its funding outlook is somewhat better than Medicare's in the near-term.

Funding Sources:

- Medicaid is jointly funded by the federal government and states.
- The federal share is around 64% on average, though this federal matching rate varies by state based on per capita income.
- Total Medicaid spending was over $670 billion in fiscal year 2020.

Cost Growth:

- Medicaid costs have been growing faster than the overall economy, driven by enrollment growth, rising healthcare costs, and expansion of benefits.
- Total Medicaid spending increased by around 6% annually from 2017-2020.
- This growth rate is projected to continue in the range of 5-6% per year over the next decade.

Future Outlook:

- Medicaid's funding is not facing the same insolvency projections as Medicare's Hospital Insurance Trust Fund in the short-term.
- As an entitlement, federal/state funding is obligated to match enrollment and costs.
- However, the program's growing expense poses significant budgetary pressures long-term.
- Cost-controls and potential delivery system reforms may be needed to rein in spending growth.

Challenges:

- Economic downturns increase Medicaid enrollment as more people qualify due to low incomes.
- An aging population will increase Medicaid long-term care costs substantially in coming decades.
- State budgets can be strained during recessions, making their matching funding requirements difficult.

Medicaid accounts for a significant portion of state budgets across the country. According to data from the Kaiser Family Foundation:

- In fiscal year 2021, Medicaid made up 16.8% of total state spending on average across all 50 states and D.C.
- However, there is considerable variation between states in terms of how much of their budget goes to Medicaid:

High Percentages:

- New York (34.8%)
- Missouri (33.4%)
- Pennsylvania (31.3%)
- New Mexico (30.9%)
- West Virginia (30.8%)

Low Percentages:

- Wyoming (7.9%)
- Nevada (8.9%)
- Utah (9.9%)
- Idaho (10.6%)
- Hawaii (11.1%)
- The 10 states with the highest percentage of spending on Medicaid averaged 28.9% in 2021.
- The 10 states with the lowest percentage averaged 13.3%.

This high degree of variation is due to factors like:

- A state's Medicaid enrollment and eligible population
- The state's Federal Medical Assistance Percentage (FMAP) match rate
- Decisions to expand Medicaid eligibility under the ACA
- Cost of living and healthcare costs in each state

So while Medicaid does not face the same short-term funding crisis as Medicare, its long-term cost trajectory and pressure on state/federal budgets remain major fiscal policy concerns that could necessitate cost-saving reforms or measures to raise more program revenue over time.

An Eye on the Future
Medicare for All

"Medicare for All" is a healthcare policy proposal that advocates for a single-payer, government-funded healthcare system in which all residents of a country are covered

for medical services.[81] While opinions on this approach may vary, proponents highlight several potential advantages:

1. **Universal Coverage:**
    - One of the primary advantages is the achievement of universal healthcare coverage. Under Medicare for All, everyone would have access to necessary medical services, regardless of income or employment status.
2. **Simplified Administration:**
    - A single-payer system could reduce administrative complexity by streamlining billing and paperwork. This simplification might lead to cost savings and more efficient healthcare delivery.
3. **Cost Control:**
    - Proponents argue that a single-payer system could potentially control healthcare costs more effectively through negotiation with providers, bulk purchasing of medications, and overall cost management.
4. **Preventive Care Emphasis:**
    - With a focus on preventive care, Medicare for All could encourage early intervention and wellness programs, potentially reducing the overall burden of disease and the associated costs.
5. **Elimination of Health Disparities:**
    - Advocates claim that a single-payer system could help address health disparities by ensuring that everyone, regardless of socioeconomic status, has equal access to healthcare services.
6. **Financial Security:**
    - With universal coverage, individuals would not face financial ruin due to medical expenses. This could provide greater financial security and reduce the fear of bankruptcy related to healthcare costs.
7. **Improved Health Outcomes:**
    - By providing access to healthcare services for everyone, proponents argue that Medicare for All could lead to improved health outcomes on a population level.
8. **Simplified Choice of Providers:**

[81] Much of this section comes from ChatGPT

- A single-payer system could simplify the choice of healthcare providers for individuals, as everyone would be covered under the same system.

9. **Reduced Administrative Costs:**
    - Streamlining administrative processes and reducing the complexity of dealing with multiple insurers could lead to significant cost savings.

It's important to note that while these advantages are highlighted by proponents, there are also concerns and criticisms related to the potential costs, the impact on the healthcare industry, and the role of government in healthcare. The debate over healthcare policy is complex, and different stakeholders may have varied perspectives on the best approach.

How Medicare for All Achieves Universal Coverage

Medicare for All aims to achieve universal coverage by implementing a single-payer healthcare system, where the government serves as the sole payer for healthcare services. This means that all residents of a country would be covered under a single, comprehensive healthcare plan. Here are key features of how Medicare for All achieves universal coverage:

1. **Single-Payer System:**
    - In a single-payer system, the government is the primary entity responsible for paying healthcare providers for medical services. This eliminates the need for multiple private insurance plans.
2. **Comprehensive Benefits:**
    - Medicare for All typically proposes comprehensive coverage, including hospital services, preventive care, mental health services, prescription drugs, and other necessary medical treatments. This ensures that all essential healthcare needs are covered.
3. **No Exclusions for Pre-Existing Conditions:**
    - Unlike some private insurance plans that may deny coverage or charge higher premiums based on pre-existing conditions, Medicare for All is designed to provide coverage without such exclusions or discriminatory practices.
4. **Automatic Enrollment:**
    - The system may involve automatic enrollment for all residents, ensuring that everyone is covered by default. This eliminates the need for individuals to navigate complex insurance markets or worry about being uninsured.

5. **No Out-of-Pocket Costs for Essential Services:**
    - Medicare for All proposals often aim to eliminate or significantly reduce out-of-pocket costs for essential healthcare services, making healthcare more affordable and accessible.
6. **Standardized Benefits:**
    - The system typically establishes standardized benefits, ensuring that everyone receives the same level of coverage for basic healthcare needs. This promotes equity in access to medical services.
7. **Public Funding:**
    - Medicare for All relies on public funding, usually through taxation. This ensures that the financial burden is distributed across the population, and everyone contributes to the healthcare system based on their ability to pay.
8. **Negotiation with Healthcare Providers:**
    - The government, as the single payer, can negotiate directly with healthcare providers, pharmaceutical companies, and other stakeholders to control costs and ensure fair pricing for medical services and medications.
9. **Preventive and Primary Care Focus:**
    - By emphasizing preventive and primary care, Medicare for All aims to address health issues at an early stage, reducing the overall burden of disease and potentially lowering long-term healthcare costs.

It's important to note that the specific details of Medicare for All proposals can vary, and the implementation process may involve significant legislative and administrative changes. The concept of achieving universal coverage through a single-payer system is a central tenet of these proposals. The success of such a system depends on effective planning, funding mechanisms, and public support.

How Medicare for All Simplifies Healthcare Administration

Medicare for All simplifies healthcare administration in several ways:

1. **Elimination of Multiple Payers:**
    - Medicare for All envisions a single-payer system, where the government becomes the sole payer for healthcare services. This eliminates the need for multiple private insurance companies, each with its own set of policies, forms, and administrative processes.
2. **Streamlined Billing and Claims Processing:**

- With a single-payer system, healthcare providers would submit claims to the government payer. This simplifies billing and claims processing, reducing the complexity and paperwork associated with dealing with numerous private insurers.

3. **Standardized Benefits and Reimbursement:**
    - Medicare for All proposals often include standardized benefits and reimbursement rates for healthcare services. This standardization simplifies the process for both healthcare providers and payers, reducing the need for negotiations and complex contracts.
4. **Automatic Enrollment:**
    - The system may involve automatic enrollment for all residents, eliminating the need for individuals to navigate private insurance markets or apply for coverage. This reduces administrative overhead associated with enrollment processes.
5. **Reduced Administrative Costs:**
    - By consolidating the administration under a single-payer, Medicare for All aims to reduce administrative costs related to marketing, underwriting, and managing multiple insurance plans. This can lead to overall cost savings within the healthcare system.
6. **Simplified Provider Networks:**
    - Healthcare providers would deal with a single payer, simplifying their interactions with payers and reducing the need to navigate and contract with multiple insurance networks.
7. **Unified Electronic Health Records (EHR):**
    - A single-payer system could facilitate the development of a unified electronic health records (EHR) system, making it easier to share patient information among healthcare providers and reduce the need for disparate systems.
8. **Consistent Coverage Rules:**
    - With standardized benefits and coverage rules, Medicare for All seeks to create consistency in healthcare coverage. This reduces confusion for both patients and healthcare providers regarding what is covered under the plan.
9. **Efficient Negotiation and Drug Pricing:**

- The government, as the single payer, would have more bargaining power to negotiate with pharmaceutical companies for drug prices. This could lead to more efficient negotiations and potentially lower drug costs.

While the simplification of healthcare administration is a significant goal, it's important to acknowledge that the transition to a single-payer system involves complex challenges and considerations. Critics argue that the potential benefits should be carefully weighed against the potential disruptions and changes to the existing healthcare infrastructure.

How Medicare for All Controls Healthcare Spending

Proponent of Medicare for All argue that it helps control healthcare spending through various mechanisms. While there are different proposals and variations, here are common ways in which Medicare for All aims to control healthcare spending:

1. **Negotiating Power:**
    - A single-payer system consolidates the negotiating power of the government, allowing it to negotiate directly with healthcare providers, pharmaceutical companies, and other stakeholders. This can lead to lower prices for medical services, drugs, and other healthcare-related expenses.
2. **Bulk Purchasing of Medications:**
    - With a single-payer system, the government can engage in bulk purchasing of medications, negotiating lower prices for prescription drugs. This can result in significant cost savings and contribute to controlling overall healthcare spending.
3. **Administrative Efficiency:**
    - By eliminating the administrative complexity associated with multiple private insurance plans, Medicare for All aims to increase administrative efficiency. Streamlining billing, claims processing, and administrative tasks can reduce overhead costs within the healthcare system.
4. **Preventive Care Emphasis:**
    - Medicare for All often emphasizes preventive care and early intervention. By addressing health issues at an early stage, the system aims to reduce the overall burden of disease, potentially lowering long-term healthcare costs.
5. **Standardized Benefits and Reimbursement:**
    - Standardizing benefits and reimbursement rates across the healthcare system can contribute to cost control. Healthcare providers and payers operate under consistent rules, reducing the need for complex negotiations and individual contracts.

6. **Global Budgeting:**
    - Some Medicare for All proposals consider implementing global budgeting for healthcare spending. This involves setting a predetermined budget for healthcare expenditures, which can encourage efficiency and resource allocation within the system.
7. **Reduced Administrative Costs:**
    - The consolidation of administrative functions under a single-payer system is expected to reduce administrative costs associated with marketing, underwriting, and managing multiple private insurance plans.
8. **Preventing Price Gouging:**
    - Advocates argue that a single-payer system can prevent price gouging by setting reasonable reimbursement rates for healthcare services. This can prevent excessive charges from healthcare providers.
9. **Addressing Overutilization:**
    - Some Medicare for All proposals include measures to address overutilization of healthcare services. By promoting evidence-based practices and discouraging unnecessary procedures, the system aims to control costs associated with unnecessary medical interventions.

It's important to note that the effectiveness of these cost-control measures depends on the specific details of the Medicare for All proposal and its implementation. Critics argue that potential savings may be offset by increased demand for healthcare services, and the overall impact on healthcare spending is a subject of ongoing debate.

How Medicare for All Emphasizes Preventive Care

Medicare for All emphasizes preventive care as a key component of its healthcare approach. The goal is to shift the focus from treating illnesses and conditions after they occur to preventing them in the first place. Here are ways in which Medicare for All aims to prioritize and promote preventive care:

1. **Comprehensive Coverage:**
    - Medicare for All proposals typically include comprehensive coverage for preventive services. This can include routine check-ups, vaccinations, screenings, and other preventive measures without cost-sharing for patients.
2. **Early Detection and Screening:**
    - The emphasis is placed on early detection and screening for common diseases and conditions. Regular screenings, such as mammograms,

colonoscopies, and vaccinations, are included in the covered services to detect potential health issues early when they may be more treatable.

3. **Immunizations:**
    - Medicare for All supports and promotes access to immunizations for preventable diseases. By ensuring that vaccinations are readily available and covered, the goal is to protect individuals and communities from vaccine-preventable illnesses.
4. **Health Education and Promotion:**
    - The system may include health education and promotion efforts to inform individuals about healthy lifestyles, nutrition, exercise, and other factors that contribute to overall well-being. Educating the public about healthy choices can help prevent various health issues.
5. **Chronic Disease Management:**
    - Medicare for All aims to address chronic diseases through preventive measures and management strategies. By providing ongoing care and support for individuals with chronic conditions, the system seeks to prevent complications and improve overall health outcomes.
6. **Access to Primary Care:**
    - Ensuring access to primary care is a fundamental aspect of preventive care. Medicare for All aims to provide individuals with consistent access to primary care physicians, promoting regular check-ups and health maintenance.
7. **Community-Based Health Initiatives:**
    - Some proposals may allocate resources for community-based health initiatives. These initiatives can include programs that promote healthy living, provide education on preventive measures, and engage communities in activities that support overall well-being.
8. **Incentives for Providers:**
    - Medicare for All proposals may include incentives for healthcare providers to prioritize preventive care. This can involve reimbursement models that reward healthcare professionals for delivering preventive services and promoting patient health.
9. **Integration of Behavioral Health Services:**
    - Addressing mental health is often part of preventive care. By integrating behavioral health services into the healthcare system, Medicare for All

aims to identify and address mental health concerns early on, preventing more serious issues.

By incorporating these elements into the healthcare system, Medicare for All seeks to create a proactive and preventive approach that not only improves health outcomes for individuals but also contributes to the overall health of the population.

How Medicare for All Eliminates Health Disparities

Medicare for All aims to address and reduce health disparities through various mechanisms designed to ensure equitable access to healthcare services. Here are ways in which Medicare for All seeks to eliminate health disparities:

1. **Universal Coverage:**
    - By providing universal coverage, Medicare for All ensures that everyone, regardless of socioeconomic status, has access to necessary healthcare services. Universal coverage is a fundamental step toward reducing disparities in healthcare access.
2. **Equal Access to Services:**
    - Medicare for All seeks to provide equal access to a comprehensive set of healthcare services for all individuals. This includes preventive care, primary care, specialty services, mental health services, and other essential healthcare components.
3. **Elimination of Cost Barriers:**
    - By eliminating or significantly reducing out-of-pocket costs for essential services, Medicare for All aims to remove financial barriers that can disproportionately affect individuals with lower incomes. This can help ensure that cost is not a barrier to receiving necessary medical care.
4. **Standardized Benefits:**
    - Standardizing benefits across the healthcare system helps ensure that all individuals receive the same level of coverage for basic healthcare needs. This consistency can contribute to reducing disparities in access to specific services.
5. **Culturally Competent Care:**
    - Medicare for All proposals often emphasize the importance of culturally competent care. This involves recognizing and addressing the unique cultural, linguistic, and social factors that can impact healthcare outcomes, particularly for marginalized communities.
6. **Community-Based Health Initiatives:**

- Some proposals may allocate resources for community-based health initiatives. These initiatives can address social determinants of health and focus on improving health outcomes in specific communities facing disparities.

7. **Focus on Preventive Care:**
    - Preventive care is a key aspect of Medicare for All, and promoting early detection and intervention can help address health issues before they become more severe. This approach is crucial for reducing disparities in health outcomes.
8. **Health Education and Outreach:**
    - Medicare for All may include initiatives to provide health education and outreach to underserved communities. Informing individuals about preventive measures, healthy lifestyles, and available healthcare resources can empower communities to make informed decisions about their health.
9. **Investment in Underserved Areas:**
    - Some proposals may prioritize investments in healthcare infrastructure in underserved areas. This can involve increasing the number of healthcare facilities, ensuring an adequate healthcare workforce, and addressing geographic disparities in healthcare access.
10. **Data Collection and Monitoring:**
    - Implementing robust data collection and monitoring systems can help identify and address disparities in healthcare outcomes. By understanding the specific challenges faced by different populations, policymakers can tailor interventions to reduce disparities.

It's important to note that while Medicare for All aims to address health disparities, the effectiveness of these measures depends on the specific details of the proposal, its implementation, and ongoing efforts to monitor and adapt strategies to evolving needs. Reducing health disparities requires a comprehensive and sustained approach across multiple dimensions of healthcare delivery and social determinants of health.

How Medicare for All Improves the Financial Security of All Americans

Medicare for All proponents argue that implementing a single-payer healthcare system could improve the financial security of all Americans through several mechanisms. Here are ways in which Medicare for All aims to enhance financial security:

1. **Elimination of Out-of-Pocket Costs:**

- Medicare for All typically envisions reducing or eliminating out-of-pocket costs for essential healthcare services. By doing so, individuals would be less likely to face financial hardship due to medical expenses.

2. **Universal Coverage:**
    - The provision of universal healthcare coverage ensures that all Americans have access to necessary medical services. With everyone covered, individuals are less likely to face financial ruin due to medical emergencies or untreated health conditions.
3. **No Medical Bankruptcy:**
    - By removing the financial burden associated with high healthcare costs, Medicare for All aims to reduce the incidence of medical bankruptcies. Individuals and families would not face the prospect of financial devastation due to overwhelming medical bills.
4. **Preventive Care Emphasis:**
    - Medicare for All emphasizes preventive care, which can help identify and address health issues before they become more severe and costly. Preventive measures can contribute to long-term financial savings by avoiding expensive treatments for advanced illnesses.
5. **Stable Premiums and Deductibles:**
    - A single-payer system could lead to more stable premiums and deductibles. With a government-administered healthcare plan, the pricing structure may be more predictable, providing individuals with a clearer understanding of their healthcare expenses.
6. **Income-Linked Financing:**
    - Financing Medicare for All through progressive taxation ensures that individuals contribute based on their ability to pay. This approach aims to distribute the financial burden more equitably, reducing the strain on lower-income individuals and families.
7. **Negotiation for Lower Drug Prices:**
    - The government, as the single payer, would have more negotiating power over drug prices. This could lead to lower prescription drug costs, contributing to financial relief for individuals who rely on medications.
8. **Financial Predictability:**
    - Knowing that essential healthcare services are covered without significant out-of-pocket costs provides individuals with greater financial predictability.

This stability allows for better financial planning and reduces the anxiety associated with unexpected medical expenses.

9. **Freed-up Disposable Income:**
    - With reduced or eliminated healthcare costs, individuals and families may have more disposable income. This can be used for other essential needs, contributing to overall economic well-being.
10. **Job Flexibility:**
    - Individuals may experience increased job flexibility as they are not tied to employer-sponsored health insurance. This can facilitate career changes, entrepreneurship, and other professional pursuits without the concern of losing healthcare coverage.

While proponents argue that Medicare for All could enhance financial security, critics raise concerns about potential tax implications, the overall cost of implementing such a system, and potential trade-offs. The debate over the financial implications of Medicare for All is complex and involves considerations of both costs and benefits.

How Does Medicare for All Improve Health Outcomes

Proponents of Medicare for All argue that implementing a single-payer healthcare system could lead to improved health outcomes for the population. Here are ways in which Medicare for All aims to enhance health outcomes:

1. **Universal Access to Healthcare:**
    - Medicare for All provides universal access to healthcare services, ensuring that all residents have coverage for essential medical treatments, preventive care, and health services. This universal access is intended to reduce disparities in healthcare utilization and outcomes.
2. **Early Detection and Prevention:**
    - The emphasis on preventive care and regular check-ups in Medicare for All aims to detect health issues at an early stage. Early detection allows for timely intervention and preventive measures, reducing the severity of illnesses and improving overall health outcomes.
3. **Comprehensive Coverage:**
    - Medicare for All typically offers comprehensive coverage, including preventive services, primary care, specialty care, mental health services, and prescription drugs. Comprehensive coverage addresses a wide range of health needs and contributes to holistic healthcare.
4. **Elimination of Financial Barriers:**

- By reducing or eliminating out-of-pocket costs for essential healthcare services, Medicare for All aims to remove financial barriers that may prevent individuals from seeking necessary medical care. Financial accessibility is crucial for timely and appropriate healthcare utilization.

5. **Focus on Social Determinants of Health:**
    - Medicare for All may incorporate initiatives addressing social determinants of health, such as housing, education, and nutrition. Addressing these broader factors can positively impact health outcomes and contribute to overall well-being.
6. **Health Education and Promotion:**
    - Initiatives promoting health education and prevention can be integrated into the healthcare system. Educating the public about healthy lifestyles, nutrition, and disease prevention contributes to better health awareness and outcomes.
7. **Reduced Delayed Care:**
    - With universal coverage, individuals are less likely to delay seeking medical care due to concerns about affordability. Timely access to healthcare services can prevent the progression of illnesses and improve outcomes.
8. **Coordination of Care:**
    - A single-payer system can facilitate better coordination of care among healthcare providers. Improved communication and collaboration can enhance the management of chronic conditions and complex medical cases, leading to better health outcomes.
9. **Mental Health Integration:**
    - Integrating mental health services into the overall healthcare system addresses the importance of mental health in overall well-being. Comprehensive mental health support can positively impact mental health outcomes.
10. **Evidence-Based Medicine:**
    - Medicare for All may emphasize evidence-based medicine, encouraging healthcare providers to follow established guidelines and practices supported by scientific evidence. This approach can lead to more effective and standardized care.

It's important to note that the effectiveness of Medicare for All in improving health outcomes depends on various factors, including the specific design of the program,

implementation strategies, and ongoing efforts to address challenges in the healthcare system. The debate around the impact of Medicare for All on health outcomes is multifaceted and involves considerations of access, quality of care, and overall public health.

Simplified Choice of Providers

Medicare for All simplifies the choice of healthcare providers by streamlining the healthcare system and offering a single, comprehensive coverage plan. Here are ways in which it aims to simplify the choice of providers:

1. **Universal Coverage:**
    - Medicare for All provides universal coverage, ensuring that everyone has access to the same set of healthcare providers. This eliminates the need to navigate complex networks associated with multiple private insurance plans.
2. **No Network Restrictions:**
    - Unlike many private insurance plans that may have specific networks of providers, Medicare for All aims to eliminate network restrictions. Individuals can choose healthcare providers based on their preferences, without concerns about in-network or out-of-network distinctions.
3. **Freedom to Choose Any Doctor or Hospital:**
    - With Medicare for All, individuals have the freedom to choose any doctor, specialist, or hospital that accepts the coverage. This flexibility simplifies the process of selecting healthcare providers and allows individuals to maintain existing relationships with their preferred providers.
4. **Consistent Benefits Across Providers:**
    - Standardized benefits across the healthcare system mean that individuals receive the same level of coverage regardless of the healthcare provider they choose. This consistency simplifies the decision-making process for individuals seeking medical care.
5. **No Referral Requirements:**
    - Some insurance plans require referrals from primary care physicians to see specialists. Medicare for All typically eliminates the need for referrals, allowing individuals to directly access the healthcare providers they need without additional administrative steps.
6. **Simplified Billing and Administration:**

- Medicare for All streamlines billing and administrative processes. Healthcare providers deal with a single payer, reducing the administrative burden associated with managing multiple insurance plans with varying reimbursement rules.

7. **Access to Primary Care:**
    - The system emphasizes access to primary care, ensuring that individuals can easily find and choose a primary care physician. Access to primary care is crucial for preventive services and managing overall health.
8. **Continuity of Care:**
    - Medicare for All supports continuity of care, allowing individuals to maintain relationships with their healthcare providers over time. This can contribute to better-coordinated and personalized care.
9. **Elimination of Employer-Based Networks:**
    - With Medicare for All, individuals are not bound by employer-based networks. This flexibility is particularly beneficial for those who change jobs or pursue self-employment, as their choice of providers is not tied to employer-sponsored plans.
10. **Reduced Administrative Complexity for Providers:**
    - Healthcare providers experience reduced administrative complexity by dealing with a single payer. This simplification can contribute to more efficient and streamlined interactions between providers and the healthcare system.

While the aim is to simplify the choice of providers, it's important to consider that the actual implementation and the specifics of the Medicare for All plan can vary. Additionally, ongoing efforts are needed to monitor and address any challenges that may arise in the transition to a single-payer system.

How Does Medicare for All Reduce Healthcare Administration Costs

Medicare for All is designed to reduce healthcare administration costs through the implementation of a single-payer system. Here are ways in which it aims to achieve this:

1. **Simplified Billing and Claims Processing:**
    - With Medicare for All, healthcare providers would submit claims to a single payer (the government), streamlining billing and claims processing. This simplification reduces the administrative burden associated with dealing with multiple private insurers, each with its own billing processes and requirements.

2. **Reduced Administrative Overhead for Providers:**
    - Healthcare providers would experience reduced administrative overhead as they interact with a single, standardized system. This includes fewer resources dedicated to managing billing, claims, and administrative tasks associated with multiple insurers.
3. **Elimination of Private Insurance Administrative Costs:**
    - Medicare for All aims to eliminate the administrative costs associated with managing private insurance plans. This includes marketing, underwriting, and administrative overhead specific to each private insurer, leading to overall cost savings.
4. **Standardized Benefits and Reimbursement:**
    - Standardizing benefits and reimbursement rates across the healthcare system simplifies the negotiation process for healthcare providers. This reduces the need for complex negotiations and individual contracts, contributing to administrative efficiency.
5. **Reduced Marketing and Advertising Expenses:**
    - Private insurers currently spend significant resources on marketing and advertising to attract and retain customers. With a single-payer system, the need for such marketing efforts diminishes, leading to cost savings.
6. **Efficient Allocation of Resources:**
    - Medicare for All eliminates the need for insurance companies to allocate resources for tasks such as profit margins, shareholder returns, and executive compensation. This allows for a more efficient allocation of resources directly to healthcare services.
7. **Consolidated Administrative Functions:**
    - Administrative functions related to insurance coverage, claims processing, and other tasks are consolidated under a single-payer system. This consolidation reduces redundancy, simplifies processes, and minimizes administrative complexity.
8. **Savings on Fraud Prevention:**
    - A single-payer system can result in more effective fraud prevention measures. With a unified system, it becomes easier to implement standardized fraud detection and prevention practices, reducing the resources required for individual insurers to combat fraud.
9. **Streamlined Enrollment Processes:**

- Medicare for All typically involves simplified enrollment processes. With universal coverage and potentially automatic enrollment, the need for complex enrollment procedures and paperwork is reduced, leading to administrative efficiency.

10. **Lower Administrative Costs per Beneficiary:**
    - The administrative costs per beneficiary can be lower in a single-payer system due to economies of scale. The efficiency gained from serving a larger population under a unified system can contribute to lower administrative costs per individual covered.

It's important to note that while proponents argue that Medicare for All can lead to significant administrative cost savings, critics raise concerns about potential challenges in implementing and managing such a system. The actual impact on administrative costs may depend on the specific design and implementation of the single-payer system.

Why Medicare for All is a Bad Idea

Critics of Medicare for All typically raise several concerns and potential drawbacks, including:

1. **Cost:**
    - Critics argue that implementing Medicare for All could result in substantial increases in government spending. Financing such a program might require higher taxes, which could impact the economy and individual incomes.
2. **Impact on Quality of Care:**
    - Some opponents express concerns about potential reductions in the quality of healthcare. They argue that a single-payer system may lead to longer wait times for medical services and less innovation in the healthcare sector.
3. **Disruption to Existing Systems:**
    - Transitioning to a single-payer system could involve significant disruptions to existing healthcare systems, including the private insurance industry. Critics worry about the potential negative impact on jobs and the overall economy during the transition.
4. **Loss of Choice:**
    - Critics argue that a single-payer system may limit individuals' choices by eliminating private insurance options. Some people value the ability to

choose their healthcare plans and providers, and they fear that a government-controlled system could restrict those choices.

5. **Bureaucracy and Administrative Challenges:**
    - Concerns are raised about potential bureaucratic challenges and administrative inefficiencies in a government-run healthcare system. Critics worry that a single-payer system might lead to increased red tape, delays in care, and administrative complexities.
6. **Incentives for Innovation:**
    - Opponents argue that a competitive healthcare market fosters innovation and technological advancements. They express concerns that a government-dominated system might reduce the incentives for medical research and innovation.
7. **Potential Tax Burden:**
    - Implementing Medicare for All could require substantial tax increases to fund the program. Critics are concerned about the potential burden on taxpayers and the economic consequences of higher taxes.
8. **Resistance to Change:**
    - Some individuals may resist the idea of a major overhaul of the healthcare system, especially if they are satisfied with their current insurance arrangements. Opposition may come from those who fear uncertainty or perceive a loss of control over their healthcare choices.
9. **Variability in Healthcare Needs:**
    - Critics argue that a one-size-fits-all approach may not adequately address the diverse healthcare needs of different populations and demographics. Tailoring healthcare plans to individual preferences and needs may be more challenging in a single-payer system.
10. **Political and Ideological Divisions:**
    - The debate over Medicare for All is often influenced by political and ideological divisions. Opposition may stem from differing views on the role of government in healthcare and the balance between individual freedom and collective responsibility.

It's important to note that these concerns are raised by critics, and supporters of Medicare for All contend that the proposed system would address current shortcomings in the healthcare system, provide universal access to care, and reduce overall healthcare costs. The ongoing debate revolves around finding a balance that addresses

the needs of the population while considering the potential drawbacks and challenges associated with a significant healthcare system overhaul.

How Will Medicare for All Raise Healthcare Costs

Some potential ways Medicare for All might increase healthcare spending:

1. **Increased Demand for Services:**
    - Critics suggest that the elimination of out-of-pocket costs and the provision of universal coverage could lead to an increase in the demand for healthcare services. A surge in demand, especially for elective or non-urgent procedures, could strain the healthcare system and potentially lead to higher costs.
2. **Reduced Incentives for Cost Containment:**
    - Some critics argue that a government-run, single-payer system may reduce incentives for cost containment and efficiency. In a competitive market, providers and insurers have an incentive to control costs to remain competitive. In a single-payer system, critics express concerns that such market forces may be diminished.
3. **Potential for Overutilization:**
    - Critics worry that the absence of cost-sharing measures could lead to overutilization of healthcare services. Without financial barriers, individuals might be more inclined to seek unnecessary or excessive medical care, contributing to increased healthcare costs.
4. **Challenges in Controlling Drug Prices:**
    - While proponents argue that a single-payer system could negotiate lower drug prices, critics express concerns about the potential challenges in effectively controlling pharmaceutical costs. Negotiating with drug manufacturers may not guarantee significant reductions in drug prices.
5. **Transition Costs:**
    - Critics point out that the transition to a Medicare for All system may involve significant upfront costs. The process of implementing the new system, including changes to administrative structures, workforce training, and infrastructure development, could lead to temporary increases in overall healthcare spending.
6. **Potential for Bureaucratic Inefficiencies:**
    - Concerns are raised about the potential for bureaucratic inefficiencies in a government-administered system. Critics argue that a single-payer system

might introduce administrative complexities, red tape, and delays in decision-making, which could impact overall healthcare costs.

7. **Impact on Provider Reimbursement:**
    - Critics express concerns that a government-run system might result in lower reimbursement rates for healthcare providers. If reimbursement rates are set too low, there could be challenges in maintaining an adequate supply of healthcare professionals and facilities, potentially affecting the quality of care.
8. **Resistance from Healthcare Industry:**
    - Some critics argue that the healthcare industry, including pharmaceutical companies, insurers, and certain healthcare providers, may resist cost containment efforts associated with a single-payer system. This resistance could pose challenges in achieving cost savings.
9. **Economic Impact of Tax Increases:**
    - Financing Medicare for All could require substantial tax increases to fund the program. Critics argue that higher taxes could have broader economic consequences, potentially impacting economic growth, individual incomes, and job creation.

It's important to recognize that the potential impact on healthcare costs is a complex and debated aspect of Medicare for All. Proponents argue that the system could lead to overall cost savings through administrative efficiencies, negotiation of lower prices, and a focus on preventive care. The ongoing discussion revolves around finding a balance that addresses cost concerns while ensuring access to quality healthcare for all.

How Medicare for All Will Reduce Medicare Care Quality

Medicare for All critics raise concerns about potential challenges that could affect the quality of care. Here are some arguments made by critics:

1. **Provider Reimbursement Rates:**
    - Critics express concerns that Medicare for All might lead to lower reimbursement rates for healthcare providers. If reimbursement rates are set too low, there could be challenges in attracting and retaining skilled healthcare professionals. This, in turn, could potentially impact the quality of care provided.
2. **Reduced Incentives for Innovation:**
    - Some opponents argue that a single-payer system might reduce incentives for innovation in healthcare. In a competitive market, providers and pharmaceutical companies have incentives to invest in research and

development to stay ahead. Critics worry that a government-dominated system may result in fewer innovations in medical treatments and technologies.

3. **Impact on Access to Specialized Care:**
    - Critics express concerns about the potential impact on access to specialized and advanced medical treatments. If reimbursement rates are not sufficient, healthcare providers may limit certain services or technologies, potentially affecting the availability of specialized care options.
4. **Bureaucratic Inefficiencies:**
    - Concerns are raised about the potential for bureaucratic inefficiencies in a government-run healthcare system. Critics argue that increased bureaucracy, red tape, and administrative complexities could slow down decision-making processes, potentially affecting the efficiency and quality of care.
5. **Difficulty in Addressing Regional Variances:**
    - Critics worry that a single-payer system might face challenges in addressing regional variances in healthcare needs and costs. Healthcare requirements can vary significantly across different regions, and critics argue that a one-size-fits-all approach may not adequately address these variations.
6. **Possible Impact on Provider Networks:**
    - The restructuring associated with Medicare for All could potentially impact existing provider networks. If healthcare providers face challenges in adapting to the new system, it may lead to disruptions in established patient-provider relationships, potentially affecting the continuity and quality of care.
7. **Potential for Longer Wait Times:**
    - Critics express concerns that increased demand for healthcare services, especially in the absence of cost-sharing measures, could lead to longer wait times for medical treatments. Longer wait times may impact patient outcomes and satisfaction.
8. **Resistance to Change:**
    - Some individuals and healthcare professionals may resist the significant changes associated with transitioning to a single-payer system.

Resistance to change could pose challenges in adapting to new care delivery models and may affect the overall quality of healthcare services.

It's important to note that these concerns are raised by critics, and proponents of Medicare for All argue that the system could lead to improved quality through better coordination of care, emphasis on preventive services, and standardized benefits. The debate over the impact on healthcare quality involves considerations of access, efficiency, and the overall healthcare delivery model. The effectiveness of Medicare for All in maintaining or enhancing healthcare quality would depend on the specific design and implementation of the program.

How Medicare for All Will Negatively Disrupt the Existing Healthcare System

The transition to Medicare for All could potentially lead to disruptions in the existing healthcare system, and critics often raise concerns about various aspects of this transformation. While proponents argue that a single-payer system could bring about positive changes, opponents highlight potential negative impacts. Here are some concerns raised by critics:

1. **Job Displacement:**
    - Critics worry that the shift to Medicare for All could result in job displacement, particularly in the private health insurance sector. Employees working in administrative roles related to private insurance may face challenges during the transition.
2. **Impact on Private Insurance Industry:**
    - The implementation of Medicare for All could have a significant impact on the private health insurance industry. Critics argue that the elimination or reduction of private insurance options could disrupt the existing market and lead to economic challenges for companies in this sector.
3. **Transition Costs:**
    - The transition to a single-payer system may involve significant upfront costs. Critics express concerns about the financial implications of the transition, including the costs associated with restructuring administrative systems, implementing new technology, and retraining healthcare professionals.
4. **Potential for Provider Disruptions:**
    - Healthcare providers may experience disruptions during the transition, especially if there are changes in reimbursement rates or adjustments to administrative processes. Critics worry that these disruptions could impact the stability of healthcare delivery.

5. **Resistance from Stakeholders:**
    - Various stakeholders in the healthcare system, including healthcare providers, pharmaceutical companies, and insurers, may resist the changes associated with Medicare for All. Resistance from these stakeholders could pose challenges in the implementation of the new system.
6. **Uncertainty for Healthcare Professionals:**
    - Healthcare professionals may face uncertainties about the impact of Medicare for All on their practices, reimbursement rates, and overall job stability. This uncertainty could potentially affect the morale and job satisfaction of healthcare professionals.
7. **Potential for Reduced Innovation:**
    - Critics argue that a government-run system might reduce incentives for innovation in healthcare. In a competitive market, providers and pharmaceutical companies have incentives to invest in research and development. The shift to a single-payer system may impact these incentives.
8. **Challenges in Managing Increased Demand:**
    - The elimination of out-of-pocket costs and the provision of universal coverage could potentially lead to increased demand for healthcare services. Critics express concerns about the healthcare system's ability to effectively manage and respond to this surge in demand.
9. **Regional Variations in Healthcare Needs:**
    - Healthcare needs can vary significantly across different regions. Critics worry that a one-size-fits-all approach may not adequately address regional variations in healthcare requirements, potentially leading to disparities in access and quality of care.
10. **Political and Public Resistance:**
    - The implementation of Medicare for All may face political and public resistance. Some individuals may be resistant to major changes in the healthcare system, and opposition could pose challenges in achieving widespread acceptance and support.

It's important to note that these concerns are raised by critics, and proponents of Medicare for All argue that the system could address current shortcomings in the healthcare system, provide universal access to care, and reduce overall healthcare

costs. The ongoing debate involves finding a balance that considers the potential disruptions while aiming to achieve the goals of improved access and affordability.

How Medicare for All Will Reduce Patient Choices and Options

Medicare for All could potentially impact patient choices and options in the healthcare system. While proponents argue that a single-payer system may enhance access to care for all individuals, critics express concerns about potential limitations on patient choices. Here are some arguments made by critics regarding how Medicare for All might reduce patient choices:

1. **Limitation of Private Insurance Options:**
    - Medicare for All proposals often involve the elimination or significant reduction of private health insurance options. Critics argue that this could limit individuals' ability to choose from a variety of plans with different coverage options and provider networks.
2. **Restrictions on Provider Choices:**
    - In a single-payer system, the government may negotiate reimbursement rates with healthcare providers, potentially leading to limitations on the number of providers willing to accept those rates. Critics express concerns that this could restrict patients' choices of healthcare providers.
3. **Standardized Benefits:**
    - Medicare for All typically involves standardizing benefits across the healthcare system. While this simplifies the process, critics argue that it may limit the ability of individuals to choose plans tailored to their specific healthcare needs and preferences.
4. **Impact on Specialty Care Access:**
    - Critics worry that the emphasis on cost containment in a single-payer system might lead to limitations in access to specialized or elective medical services. Patients may have fewer options for seeking specialized care or choosing specific healthcare facilities.
5. **Reduced Flexibility in Plan Selection:**
    - The elimination of private insurance options could result in reduced flexibility for individuals to choose plans that align with their preferences, including factors such as deductibles, co-pays, and coverage for specific medical services.
6. **Potential for Longer Wait Times:**

- Increased demand for healthcare services, coupled with potential cost-containment measures, could lead to longer wait times for medical treatments. Critics argue that this may limit patients' ability to promptly access the care they need.

7. **Impact on Provider Networks:**
    - The restructuring associated with Medicare for All might impact existing provider networks. Critics express concerns that changes in reimbursement rates or administrative processes may lead to disruptions in established patient-provider relationships.
8. **Limited Control Over Healthcare Decisions:**
    - Critics argue that a government-administered system may limit individuals' control over their healthcare decisions. The standardization of benefits and potential restrictions on certain medical services could reduce patient autonomy in choosing the care that best suits their needs.
9. **Potential for Reduced Innovation in Care Models:**
    - In a single-payer system, critics express concerns about potential reductions in innovation in healthcare delivery models. A more centralized system may be less conducive to experimentation with new care models and approaches.
10. **Resistance to Change:**
    - Patients and healthcare professionals may resist major changes in the healthcare system. The transition to Medicare for All could face opposition from those who value their current insurance arrangements and fear a loss of control over their healthcare choices.

It's important to note that these concerns are raised by critics, and the actual impact on patient choices and options would depend on the specific design and implementation of Medicare for All. Proponents argue that the system could increase overall access to care and simplify the healthcare process, while opponents highlight potential trade-offs in terms of choice and flexibility.

Medicare for All Raises Bureaucratic and Administrative Challenges

Here are some of the bureaucratic and administrative challenges that some critics have been raised:

1. **System Overhaul and Implementation:**
    - The shift to a single-payer system involves a comprehensive overhaul of the existing healthcare infrastructure. Implementing new administrative

structures, technology systems, and processes on a national scale can be a complex and resource-intensive task.

2. **Transition Costs:**
    - The transition to Medicare for All may come with significant upfront costs. Adapting to new administrative requirements, retraining healthcare professionals, and updating technology systems could require substantial financial investments.
3. **Workforce Training:**
    - Healthcare professionals and administrative staff may require training to adapt to the new system. Training a large workforce to navigate changes in billing, claims processing, and administrative procedures is a logistical challenge.
4. **Data Integration and Standardization:**
    - Achieving seamless data integration and standardization across the healthcare system is crucial for the efficient operation of a single-payer system. This involves addressing interoperability issues and ensuring that diverse healthcare entities can effectively share information.
5. **Provider Reimbursement:**
    - Establishing fair and effective provider reimbursement rates is a complex task. Determining rates that are acceptable to healthcare providers while maintaining cost control requires careful negotiation and administrative coordination.
6. **Coordination with State Programs:**
    - Coordination with existing state-level healthcare programs and Medicaid systems may present challenges. Ensuring a smooth transition and integration with state-specific programs requires effective collaboration and administrative planning.
7. **Claims Processing and Billing:**
    - Streamlining claims processing and billing is a key aspect of administrative efficiency. The implementation of a single-payer system requires the development of standardized processes to handle claims and billing on a national scale.
8. **Technology Infrastructure:**
    - Upgrading and modernizing the technology infrastructure to support a national healthcare system is a significant undertaking. Ensuring the

security, interoperability, and efficiency of healthcare information systems is a complex administrative task.

9. **Resistance from Stakeholders:**
    - Stakeholders, including healthcare providers, insurers, and pharmaceutical companies, may resist administrative changes associated with Medicare for All. Overcoming potential resistance and ensuring buy-in from diverse stakeholders is a challenge.
10. **Public Education and Communication:**
    - Effectively communicating changes to the public and educating individuals about the new system is crucial. Public awareness campaigns and communication strategies are necessary to inform individuals about their rights, benefits, and changes in healthcare procedures.
11. **Addressing Regional Variations:**
    - The administrative challenges include addressing regional variations in healthcare needs, costs, and delivery. Tailoring administrative processes to accommodate these variations while maintaining national standards requires careful consideration.
12. **Ensuring Adequate Healthcare Workforce:**
    - The transition to a single-payer system may require adjustments in the healthcare workforce to meet increased demand. Ensuring an adequate number of healthcare professionals and support staff is an administrative challenge.

It's important to note that while critics highlight these administrative challenges, proponents argue that the long-term benefits of Medicare for All, such as improved access, simplified billing, and overall cost savings, could outweigh these initial complexities. The effectiveness of addressing administrative challenges would depend on the planning, implementation, and ongoing management of the transition to a single-payer system.

How Medicare for All Might Reduce Healthcare Innovation

Critics of Medicare for All express concerns that a transition to a single-payer healthcare system could potentially reduce incentives for healthcare innovation. While proponents argue that a single-payer system could lead to cost savings and increased access to care, opponents highlight potential challenges related to innovation. Here are some arguments made by critics regarding how Medicare for All might impact healthcare innovation:

1. **Reduced Financial Incentives for Research and Development:**

- Critics argue that a single-payer system might reduce financial incentives for pharmaceutical companies and healthcare providers to invest in research and development. In a competitive market, the potential for high profits can drive innovation. A more centralized system may alter these financial dynamics.

2. **Risk Aversion in a Government-Run System:**
    - Some critics express concerns that a government-administered healthcare system may be more risk-averse when it comes to adopting new and innovative medical technologies. Bureaucratic processes and decision-making may prioritize cost containment over embracing novel, yet potentially more expensive, treatments.
3. **Impact on Biotechnology and Life Sciences:**
    - The biotechnology and life sciences sectors heavily rely on private investments for innovation. Critics argue that a reduction in private investment resulting from changes in the market dynamics under a single-payer system could impede progress in these fields.
4. **Potential for Limited Choice of Treatments:**
    - A single-payer system may negotiate prices and coverage for medical treatments on a national level. Critics worry that centralized decision-making could limit the variety of available treatments and reduce options for patients seeking innovative therapies.
5. **Slower Adoption of New Technologies:**
    - Critics express concerns that a more centralized healthcare system may lead to slower adoption of new medical technologies. The bureaucracy associated with decision-making and budgetary constraints may result in delays in incorporating innovative treatments into standard medical practice.
6. **Impact on Academic Medical Centers:**
    - Academic medical centers often play a crucial role in medical research and innovation. Critics argue that changes in funding mechanisms and reimbursement rates under a single-payer system may affect the ability of academic institutions to invest in groundbreaking research.
7. **Potential Brain Drain in Healthcare Professions:**
    - Some critics suggest that the potential for lower earning potential and reduced financial rewards for innovation could lead to a "brain drain" in

healthcare professions. Skilled professionals may be drawn to sectors or countries that offer more favorable incentives for innovation.

8. **Incentives for Cost Control Over Innovation:**
    - In a system that prioritizes cost control, critics argue that healthcare providers may face pressure to focus on cost-effective treatments rather than invest in cutting-edge, albeit more expensive, medical innovations.
9. **Impact on Startups and Small Biotech Companies:**
    - Critics express concerns about the potential challenges faced by startups and small biotech companies in securing funding under a single-payer system. Reduced profitability and increased regulatory hurdles could impact the ability of these entities to contribute to innovation.
10. **Potential Disincentives for Entrepreneurship:**
    - A shift to a single-payer system may alter the incentives for entrepreneurship in the healthcare sector. Critics worry that reduced profit margins and increased regulation may discourage entrepreneurs from entering the healthcare industry.

It's important to note that these concerns are raised by critics, and the impact on healthcare innovation would depend on various factors, including the specific design of the single-payer system, ongoing policy adjustments, and efforts to balance cost containment with support for innovation. Proponents argue that a single-payer system could foster a more efficient and equitable healthcare system, but the potential trade-offs with innovation remain a part of the broader debate.

How Might Medicare for All Affect Individual and Corporate Taxes

While specific policy details can vary, here are general considerations regarding how Medicare for All might affect taxes:

Individual Taxes:

1. **Potential for Increased Taxes:**
    - Financing a comprehensive healthcare system like Medicare for All would likely require additional government revenue. Proponents often discuss funding sources such as progressive income taxes, payroll taxes, and other measures. Consequently, some individuals, particularly those with higher incomes, could see an increase in their tax burden.
2. **Offset by Elimination of Premiums and Out-of-Pocket Costs:**
    - Supporters argue that while taxes may increase, individuals and families would no longer be required to pay premiums, deductibles, or copayments

associated with private health insurance. This could offset the impact of higher taxes, especially for those who currently face significant healthcare-related costs.

3. **Progressive Taxation Approach:**
    - Proponents often advocate for a progressive taxation approach, where higher-income individuals contribute a larger percentage of their income toward funding Medicare for All. This is seen as a way to distribute the financial burden more equitably.
4. **Potential for Savings:**
    - Supporters argue that the overall cost of healthcare for individuals and families would decrease under Medicare for All. While taxes may go up, the elimination of private insurance premiums and reduced out-of-pocket expenses could result in net savings for many households.

Corporate Taxes:

1. **Impact on Employers:**
    - Under Medicare for All, employers may see changes in their financial responsibilities related to employee healthcare. While some proponents argue that businesses could experience cost savings by no longer providing private health insurance plans, critics suggest that increased corporate taxes may offset these potential savings.
2. **Potential for Employer Payroll Taxes:**
    - One proposed funding mechanism for Medicare for All involves implementing payroll taxes on employers. This could be a way to shift the financial responsibility for healthcare from businesses to the broader tax base.
3. **Reduced Administrative Costs for Employers:**
    - Supporters argue that employers could benefit from reduced administrative costs associated with managing private health insurance plans for their employees. A single-payer system may simplify administrative processes for businesses.
4. **Economic Impact:**
    - Critics express concerns that increased corporate taxes could have broader economic consequences, potentially affecting job creation, business investment, and economic growth. Proponents argue that the overall reduction in healthcare costs could positively impact the economy.

5. **Potential for Redistribution of Costs:**
    - The shift to Medicare for All could redistribute the costs of healthcare from employers to the government. This could lead to changes in corporate financial strategies and impact industries differently based on their current healthcare spending.
6. **Sector-Specific Considerations:**
    - Different industries may be affected in varying ways. Some sectors that currently provide generous health benefits may face higher taxes, while others with lower healthcare costs may benefit from a more level playing field.

It's important to note that the specific impact on taxes would depend on the details of the Medicare for All proposal, including the chosen funding mechanisms and how the transition is structured. The debate over the financial aspects of Medicare for All involves considerations of both the costs and potential savings for individuals, employers, and the government.

Can Medicare for All Address the Healthcare Needs of Americans?

While proponents argue that a single-payer system can provide more equitable access to care, critics raise concerns about potential challenges in addressing the diverse healthcare needs of the population. Here are considerations on both sides of the debate:

Proponents' Arguments:

1. **Universal Access to Basic Healthcare:**
    - Proponents contend that Medicare for All aims to ensure universal access to basic healthcare services for all Americans. By providing a baseline level of coverage, the system seeks to address fundamental healthcare needs across the population.
2. **Standardized Benefits:**
    - Medicare for All proposals often include standardized benefits, eliminating variations in coverage between different insurance plans. This standardization is intended to ensure that individuals receive consistent and comprehensive healthcare services regardless of their specific circumstances.
3. **Preventive Care Emphasis:**
    - Supporters argue that a single-payer system can emphasize preventive care, addressing health needs at an earlier stage and potentially reducing

the overall burden on the healthcare system. By focusing on preventive measures, the system aims to improve population health.

4. **Elimination of Disparities in Access:**
    - Proponents suggest that Medicare for All can help eliminate disparities in access to healthcare. By providing coverage to all individuals, regardless of factors such as income or employment status, the system seeks to reduce variations in healthcare access.
5. **Efficient Resource Allocation:**
    - A single-payer system could streamline administrative processes and resource allocation, ensuring that healthcare resources are distributed more efficiently. This efficiency may contribute to a more equitable distribution of healthcare services.

Critics' Concerns:

1. **One-Size-Fits-All Approach:**
    - Critics argue that a single-payer system may adopt a one-size-fits-all approach that does not adequately address the diverse healthcare needs of individuals and communities. Different populations may have unique health requirements that may not be fully accommodated.
2. **Regional Variations:**
    - Healthcare needs can vary significantly across regions due to factors such as demographics, prevalence of certain health conditions, and local healthcare infrastructure. Critics express concerns that a nationalized system may struggle to address these regional variations effectively.
3. **Limited Choice of Providers:**
    - Critics worry that a single-payer system might limit individuals' choices of healthcare providers. While proponents argue for cost containment, critics express concerns that reduced provider options could impact the ability of individuals to access specialized or preferred care.
4. **Inadequate Addressing of Specific Conditions:**
    - Some critics suggest that certain specialized or rare health conditions may not receive sufficient attention or resources in a more centralized healthcare system. Tailoring care to specific conditions or demographic groups could be challenging.
5. **Resistance to Innovations in Care Models:**

- Critics argue that a government-dominated system may be less conducive to experimenting with innovative care models and approaches. The potential for bureaucratic hurdles and resistance to change could impede the adoption of new and effective healthcare solutions.

6. **Potential for Longer Wait Times:**
    - Increased demand for healthcare services, combined with potential resource constraints, could lead to longer wait times for medical treatments. Critics express concerns that longer wait times may negatively impact patient outcomes.

The debate over whether Medicare for All can effectively address variations in healthcare needs revolves around finding a balance between providing universal access and accommodating the diverse health requirements of the population. The effectiveness of the system would depend on the specific design, implementation, and ongoing adjustments made to address these considerations.

How Will Our Divisive Political Environment Affect Medicare for All?

The divisive political environment in the United States has a significant impact on discussions and potential implementations of policies, including Medicare for All. The perspectives and stances of political actors, policymakers, and the general public contribute to the challenges and opportunities for advancing such proposals. Here are key considerations regarding how the divisive political environment may affect Medicare for All:

Challenges:

1. **Partisan Divisions:**
    - Healthcare policy, including proposals like Medicare for All, has become deeply polarized along party lines. Divisions between Democrats and Republicans can hinder bipartisan support for comprehensive healthcare reform, making it challenging to pass legislation.
2. **Ideological Differences:**
    - Ideological differences regarding the role of government in healthcare and the balance between individual choice and collective responsibility contribute to the political divide. Finding common ground on the fundamental principles of healthcare policy is a significant hurdle.
3. **Interest Group Opposition:**
    - Powerful interest groups, including those representing insurance companies, pharmaceuticals, and healthcare providers, may actively oppose or lobby against significant changes to the healthcare system. The

influence of these groups can create obstacles for transformative healthcare proposals.

4. **Public Opinion Variability:**
    - Public opinion on healthcare reform, including Medicare for All, varies across political affiliations. Bridging the gap in public support and addressing concerns from different ideological perspectives is a complex task.
5. **Fiscal Concerns:**
    - Discussions around how to fund Medicare for All often involve debates on tax increases and government spending. Fiscal conservatives may express concerns about the potential economic impact and sustainability of such a large-scale healthcare program.

Opportunities:

1. **Public Demand for Change:**
    - Despite political divisions, there is public demand for improvements in the healthcare system. The impact of the COVID-19 pandemic has further highlighted the importance of accessible and affordable healthcare. Public pressure may create opportunities for policymakers to revisit healthcare reform proposals.
2. **Evolving Policy Discourse:**
    - The political landscape is dynamic, and policy priorities can evolve over time. Shifting public attitudes, changes in leadership, and external factors may contribute to a reevaluation of healthcare policies, potentially creating openings for new proposals.
3. **State-Level Initiatives:**
    - Some states have explored or implemented their own healthcare reforms. State-level initiatives, even if limited in scope, could serve as test cases for certain aspects of healthcare reform and inform national discussions.
4. **Incremental Changes:**
    - Given the challenges of passing comprehensive reform, there may be opportunities for incremental changes to the healthcare system. Policymakers may explore targeted measures that address specific issues, gradually building towards broader reforms.
5. **Coalitions and Compromise:**

- Building coalitions and finding areas of compromise can be crucial for advancing healthcare policy. While comprehensive reform may face hurdles, targeted measures that garner bipartisan support could lay the groundwork for broader changes.

6. **External Events Shaping Priorities:**
    - Unforeseen events, such as public health crises or economic challenges, can reshape political priorities. External factors may create windows of opportunity for reexamining and reforming healthcare policy.

The future of Medicare for All is intricately tied to the dynamics of the political environment. Achieving consensus and overcoming political divisions will require strategic policymaking, effective communication, and a willingness to find common ground on the complex issues surrounding healthcare reform. The interplay of political, economic, and societal factors will continue to shape the trajectory of healthcare policy discussions in the United States.

Rationing and treatment rejection in Medicare

Medicare typically does not cover certain services, treatments, or items that are considered elective, cosmetic, or not medically necessary. Here are some examples:

1. **Cosmetic Surgery**: Procedures performed solely for cosmetic purposes, such as facelifts, breast augmentation, and liposuction, are generally not covered.
2. **Acupuncture**: While some private Medicare Advantage plans may offer coverage for acupuncture, traditional Medicare typically does not cover this service.
3. **Long-Term Care**: Medicare does not cover most long-term care services, including assisted living facilities, custodial care, and nursing home care.
4. **Dental Care**: Routine dental care, such as cleanings, fillings, and extractions, is generally not covered by Medicare. Some Medicare Advantage plans may offer limited dental coverage.
5. **Vision Care**: Routine eye exams, eyeglasses, and contact lenses are typically not covered by Medicare, though there are exceptions for certain eye diseases and conditions.
6. **Hearing Aids**: Medicare does not cover hearing aids or routine hearing exams, though some Medicare Advantage plans may offer coverage for these services.
7. **Foot Care**: Routine foot care, including podiatry services, is generally not covered unless it's related to a medical condition such as diabetes.

8. **Acupressure, Massage Therapy, and Chiropractic Services**: These services are typically not covered by traditional Medicare, though coverage may be available through certain Medicare Advantage plans.
9. **Experimental or Investigational Treatments**: Medicare does not cover treatments that are considered experimental or not proven to be effective.

How does Medicare decide which services to fund and which to reject?

Medicare determines which services to cover based on several factors, including:

1. **Medical Necessity**: Medicare covers services and treatments that are deemed medically necessary to diagnose or treat a medical condition. This means the service must be considered reasonable and necessary for the diagnosis or treatment of an illness or injury.
2. **Evidence-Based Medicine**: Medicare evaluates medical treatments and services based on scientific evidence of their effectiveness. Services that have been proven through clinical studies to improve health outcomes or quality of life are more likely to be covered.
3. **National Coverage Determinations (NCDs)**: The Centers for Medicare & Medicaid Services (CMS) establishes National Coverage Determinations (NCDs) to specify whether Medicare will cover a particular item or service. These determinations are based on factors such as clinical evidence, expert opinions, and public comments.
4. **Local Coverage Determinations (LCDs)**: Medicare Administrative Contractors (MACs) develop Local Coverage Determinations (LCDs) that provide additional guidance on coverage for specific services within their geographic jurisdictions. LCDs may vary by region and can provide more detailed criteria for coverage.
5. **Cost-Effectiveness**: Medicare considers the cost-effectiveness of services when making coverage decisions. While Medicare aims to provide access to necessary healthcare services, it also seeks to manage costs and ensure the sustainability of the program.
6. **Statutory Exclusions**: Some services are explicitly excluded from Medicare coverage by law. For example, Medicare cannot cover most dental care, eyeglasses, and hearing aids under the original Medicare program.
7. **Public Input and Stakeholder Feedback**: Medicare may consider input from healthcare providers, beneficiary advocacy groups, medical societies, and other stakeholders when making coverage decisions. Public comments and feedback are often solicited during the decision-making process for NCDs and LCDs.

Overall, Medicare aims to strike a balance between providing access to essential healthcare services while managing costs and ensuring the quality and effectiveness of

care. Coverage decisions are based on a combination of medical evidence, clinical judgment, statutory requirements, and input from stakeholders.

Medicare's coverage policies evolve over time, and they may update their coverage decisions periodically to reflect advancements in medical technology and changes in clinical evidence. However, there are certain technology-based treatments or services that Medicare historically has been cautious about covering due to various factors such as limited evidence of effectiveness, high costs, or ongoing research. Here are some examples:

1. **Virtual Reality Therapy**: While virtual reality (VR) therapy shows promise in various healthcare applications, including pain management and mental health treatment, Medicare's coverage for VR therapy may be limited due to a lack of extensive clinical evidence supporting its effectiveness in specific medical conditions.
2. **Telehealth Services**: While Medicare has expanded coverage for telehealth services in response to the COVID-19 pandemic, coverage for certain telehealth modalities and services may still be limited. For example, coverage for remote patient monitoring devices or certain telehealth platforms may vary based on specific criteria.
3. **Genetic Testing and Personalized Medicine**: Medicare may cover certain genetic tests for specific medical conditions or hereditary diseases. However, coverage for more comprehensive genetic testing panels or personalized medicine approaches may be limited due to concerns about cost-effectiveness and the need for additional evidence of clinical utility.
4. **Robotic Surgery**: While robotic-assisted surgical procedures have become more common in recent years, Medicare's coverage for robotic surgery may be limited to specific indications and procedures. Coverage decisions may depend on factors such as the availability of clinical evidence demonstrating improved outcomes compared to traditional surgical approaches.
5. **Stem Cell Therapy**: Medicare's coverage for stem cell therapy may be limited due to concerns about the safety, efficacy, and regulation of stem cell treatments. Coverage decisions may vary depending on whether the stem cell therapy is considered standard of care for a specific medical condition or is part of an approved clinical trial.
6. **Artificial Intelligence (AI) Applications**: Medicare's coverage for AI-based diagnostic tools or decision support systems may be limited to specific applications with robust clinical evidence supporting their accuracy and clinical utility. Coverage decisions may also depend on regulatory approval and compliance with Medicare billing requirements.

It's essential to note that Medicare's coverage decisions are subject to change, and coverage for specific technology-based treatments or services may evolve over time as new evidence emerges and healthcare practices evolve. Individuals should consult with healthcare providers and Medicare representatives to understand the current coverage policies and options available to them.

Medicare aims to provide coverage for medically necessary treatments that are proven to be effective and appropriate for the patient's condition. However, there may be instances where Medicare does not cover certain treatments that could be considered potentially life-saving. Here are some reasons why this might occur:

1. **Lack of Sufficient Evidence**: Medicare typically requires strong evidence of a treatment's effectiveness before providing coverage. If there is insufficient clinical evidence to support the effectiveness of a particular treatment for a specific condition, Medicare may not cover it, even if it has the potential to be life-saving.
2. **Experimental or Investigational Treatments**: Medicare generally does not cover treatments that are considered experimental or investigational, meaning they have not yet been proven through rigorous clinical trials to be safe and effective for the intended use.
3. **Off-Label Use of Drugs**: Medicare may not cover the off-label use of drugs, meaning the use of a medication for a condition or indication not approved by the Food and Drug Administration (FDA). While off-label use is common in medical practice, Medicare may only cover medications for FDA-approved indications.
4. **Cost Considerations**: In some cases, the cost of a treatment may be prohibitively high, and Medicare may determine that the cost outweighs the potential benefit, especially if there are other, more cost-effective treatments available.
5. **Statutory Exclusions**: Certain treatments or services may be explicitly excluded from Medicare coverage by law. For example, Medicare cannot cover most dental care, hearing aids, or cosmetic surgery under the original Medicare program.

It's important to note that Medicare's coverage policies may vary depending on factors such as the specific medical condition, the individual's health status, and the availability of alternative treatments. In some cases, individuals may have the option to appeal Medicare's coverage decision or seek coverage through other avenues, such as clinical trials, private insurance, or financial assistance programs.

Medicare typically covers a wide range of cancer treatments that are considered medically necessary and proven to be effective. However, there may be certain cancer treatments or related services that Medicare does not cover or has limitations on coverage. Here are some examples:

1. **Off-Label Use of Drugs**: Medicare may not cover the off-label use of drugs for cancer treatment, meaning the use of a medication for a purpose other than its FDA-approved indication. Coverage for off-label use is evaluated on a case-by-case basis and may depend on the availability of strong clinical evidence supporting the treatment's effectiveness.
2. **Experimental or Investigational Treatments**: Medicare generally does not cover treatments that are considered experimental or investigational for cancer, meaning they have not yet been proven through rigorous clinical trials to be safe and effective. Coverage for experimental treatments may be available through clinical trials or other research studies but is not typically covered by Medicare outside of these contexts.
3. **Alternative or Complementary Therapies**: Medicare typically does not cover alternative or complementary therapies for cancer treatment that have not been proven to be effective through scientific research. This may include treatments such as acupuncture, herbal remedies, and dietary supplements.
4. **High-Cost Drugs or Therapies**: Medicare may have limitations on coverage for certain high-cost cancer drugs or therapies, particularly if the cost exceeds Medicare's established payment limits or if the treatment is considered to be of limited clinical benefit.
5. **Non-Medically Necessary Services**: Medicare generally does not cover cancer treatments that are not considered medically necessary or appropriate for the patient's condition. This may include treatments that are considered to be primarily palliative or supportive in nature and do not directly target the underlying cancer.

It's important for individuals with cancer and their caregivers to work closely with healthcare providers and Medicare representatives to understand the coverage options available and any potential limitations or restrictions on coverage for specific treatments. In some cases, individuals may have the option to appeal Medicare's coverage decision or explore alternative sources of coverage or financial assistance for cancer treatment costs.

Some coronary treatments that Medicare rejects as an example

Medicare generally provides coverage for a wide range of treatments for coronary artery disease and related conditions, particularly those that are considered medically necessary and proven to be effective. However, there may be certain coronary treatments or related services that Medicare does not cover or has limitations on coverage. Here are some examples:

1. **Elective Angioplasty or Stenting**: Medicare may not cover elective coronary angioplasty or stenting procedures if they are not deemed medically necessary.

Coverage is typically provided for these procedures when they are performed to alleviate symptoms of coronary artery disease or to treat acute coronary syndromes.

2. **High-Risk or Investigational Procedures**: Medicare may not cover certain high-risk or investigational coronary procedures that have not been proven through rigorous clinical trials to be safe and effective. This may include emerging techniques or devices for treating coronary artery disease that are still undergoing evaluation.
3. **Preventive Screening Tests**: Medicare generally does not cover routine screening tests for coronary artery disease in asymptomatic individuals who do not have risk factors. Coverage for screening tests such as coronary calcium scoring or coronary CT angiography may be limited to certain high-risk populations or individuals with specific indications.
4. **Alternative or Complementary Therapies**: Medicare typically does not cover alternative or complementary therapies for coronary artery disease that have not been proven to be effective through scientific research. This may include treatments such as chelation therapy, acupuncture, or herbal remedies.
5. **Non-Medically Necessary Services**: Medicare generally does not cover coronary treatments or procedures that are not considered medically necessary or appropriate for the patient's condition. This may include treatments that are considered to be primarily preventive in nature or that do not directly address the underlying coronary artery disease.

It's important for individuals with coronary artery disease and their healthcare providers to carefully review Medicare's coverage policies and guidelines to understand the options available and any potential limitations or restrictions on coverage for specific treatments. In some cases, individuals may have the option to appeal Medicare's coverage decision or explore alternative sources of coverage or financial assistance for coronary treatment costs.

How Medicare’s treatment approval / rejection protocols compare to NICE’s protocols in the UK's National Health Service

Medicare in the United States and the National Health Service (NHS) in the United Kingdom operate under different healthcare systems and have different protocols for determining coverage and treatment approval. While both systems aim to provide access to high-quality healthcare services, there are some key differences in their approaches to treatment approval and rejection:

1. **Medicare in the United States**:
    - Medicare is a federal health insurance program primarily for people aged 65 and older, as well as some younger individuals with disabilities.

- Coverage decisions are made by the Centers for Medicare & Medicaid Services (CMS), which sets coverage policies based on factors such as medical necessity, clinical evidence, cost-effectiveness, and statutory requirements.
- Medicare coverage decisions may vary by region and may be influenced by input from stakeholders, including healthcare providers, beneficiary advocacy groups, and medical societies.
- Medicare generally provides coverage for treatments that are deemed medically necessary and proven to be effective, although coverage for certain treatments may be limited or subject to specific criteria.

2. **National Institute for Health and Care Excellence (NICE) in the United Kingdom**:
    - NICE is an independent organization responsible for providing national guidance and recommendations on health technologies and clinical practices in England and Wales.
    - NICE evaluates the clinical and cost-effectiveness of treatments and interventions through its technology appraisal and clinical guideline programs.
    - NICE assesses the evidence base for treatments and issues guidance on whether they should be recommended for use within the NHS based on considerations such as clinical effectiveness, cost-effectiveness, and impact on patient outcomes.
    - NICE's recommendations are influential in determining access to treatments within the NHS, and healthcare providers are generally expected to follow NICE guidance in their clinical practice.

In terms of stringency, it's challenging to make a direct comparison between Medicare's coverage protocols and NICE's protocols, as they operate within different healthcare systems with unique priorities and constraints. Both systems strive to ensure that patients have access to effective and appropriate treatments while managing costs and promoting high-quality care. However, the specific criteria and processes for treatment approval and rejection may differ between the two systems based on their respective healthcare delivery models and organizational structures.

A brief description of NICE’s rationing protocol

The National Institute for Health and Care Excellence (NICE) in the United Kingdom does not operate under a formal "rationing" protocol per se, but it does employ a rigorous system to assess the clinical and cost-effectiveness of healthcare interventions. Here's an overview of NICE's approach:

1. **Health Technology Assessment (HTA)**: NICE conducts health technology assessments to evaluate the clinical and cost-effectiveness of healthcare interventions, including drugs, medical devices, procedures, and public health programs. These assessments are based on systematic reviews of available evidence, economic analyses, and consultation with clinical experts.
2. **Evidence Review and Appraisal**: NICE reviews the available evidence on the effectiveness and safety of the intervention in question, considering data from clinical trials, observational studies, and other sources. The quality and reliability of the evidence are carefully assessed to ensure robustness.
3. **Cost-Effectiveness Analysis**: NICE evaluates the cost-effectiveness of the intervention by comparing its clinical benefits with its costs. Economic analyses are conducted to assess factors such as the cost per quality-adjusted life year (QALY) gained. NICE uses a cost-effectiveness threshold to determine whether an intervention represents value for money within the context of the NHS budget.
4. **Guidance Development**: Based on its assessment, NICE develops guidance recommending whether the intervention should be adopted within the NHS. This guidance is published in the form of technology appraisals, clinical guidelines, diagnostics guidance, and public health guidance. Recommendations may include advice on which patient groups are most likely to benefit from the intervention, dosage and administration details, and any conditions or criteria for use.
5. **Consultation and Stakeholder Involvement**: NICE involves various stakeholders, including patient representatives, healthcare professionals, industry stakeholders, and the public, throughout the guidance development process. Stakeholder input is sought during scoping, evidence review, and consultation phases to ensure that multiple perspectives are considered.
6. **Implementation**: NICE guidance is intended to inform clinical practice and decision-making within the NHS. While NICE recommendations are not legally binding, healthcare providers and commissioners are generally expected to adhere to NICE guidance in their decision-making processes, subject to local variation and individual patient circumstances.

Overall, NICE's approach aims to ensure that NHS resources are allocated efficiently and that patients have access to effective, evidence-based healthcare interventions that represent value for money. While difficult decisions may arise regarding the funding and provision of certain interventions, NICE's transparent and evidence-based approach seeks to balance clinical need, patient benefit, and affordability within the context of finite healthcare resources.

NICE uses QALYs to determine treatment cost effectiveness

The National Institute for Health and Care Excellence (NICE) in the United Kingdom uses Quality-Adjusted Life Years (QALYs) as a measure of health outcomes to assess the cost-effectiveness of healthcare interventions. QALYs combine both the quantity and quality of life gained from a healthcare intervention into a single measure. Here's how NICE uses QALYs to determine treatment cost-effectiveness:

1. **Definition of QALY**: A QALY is a measure of health outcome that combines both the length of life (quantity) and the quality of life (utility or health-related quality of life) experienced during that time. One QALY is equivalent to one year of life lived in perfect health. Health states considered less desirable than perfect health have QALY values less than 1.

2. **Utility Values**: Utility values represent the quality of life associated with different health states. These values are typically obtained through preference-based measures such as the EuroQol 5-Dimension (EQ-5D) questionnaire, which assesses health-related quality of life across five dimensions (mobility, self-care, usual activities, pain/discomfort, and anxiety/depression). Utility values range from 0 (representing death) to 1 (representing perfect health), with negative values indicating health states worse than death.

3. **Assessment of Health Benefits**: When evaluating a healthcare intervention, NICE considers the impact of the intervention on patients' health-related quality of life over time. This is done by estimating the number of QALYs gained or lost as a result of the intervention compared to the relevant comparator or standard of care.

4. **Cost per QALY**: NICE assesses the cost-effectiveness of a healthcare intervention by calculating the incremental cost per QALY gained compared to the next best alternative or comparator. This involves comparing the additional costs of the intervention (e.g., drug costs, administration costs, monitoring costs) with the additional health benefits in terms of QALYs gained. Interventions with lower incremental cost per QALY gained are generally considered more cost-effective.

5. **Cost-Effectiveness Threshold**: NICE uses a cost-effectiveness threshold to determine whether an intervention represents value for money within the context of the National Health Service (NHS) budget. This threshold represents the maximum amount that the NHS is willing to pay for each additional QALY gained. While the exact threshold may vary over time, it is typically set at around £20,000 to £30,000 per QALY gained.

6. **Decision Making**: Based on its assessment of cost-effectiveness, NICE provides recommendations on whether the intervention should be funded and adopted within the NHS. Interventions with incremental cost-effectiveness ratios below the cost-effectiveness threshold are generally recommended for adoption, while

those above the threshold may face greater scrutiny or may not be recommended for routine use.

Overall, QALYs provide a standardized and quantitative measure of health outcomes that allows NICE to compare the costs and benefits of different healthcare interventions in a consistent and transparent manner. By considering both the costs and health benefits of interventions in terms of QALYs, NICE aims to ensure that NHS resources are allocated efficiently and that patients have access to cost-effective treatments that provide meaningful improvements in health-related quality of life.

What is the EuroQol 5-Dimension (EQ-5D) questionnaire?

The EuroQol 5-Dimension (EQ-5D) questionnaire is a widely used instrument for measuring health-related quality of life (HRQoL) across five dimensions. It is a standardized, generic measure designed to provide a simple, generic measure of health for clinical and economic appraisal. The EQ-5D is used in a variety of healthcare settings, including clinical trials, health technology assessments, and population health surveys. Here's an overview of the EQ-5D questionnaire:

1. **Dimensions**: The EQ-5D assesses health-related quality of life across five dimensions:
    - Mobility: Assessing the respondent's ability to move around.
    - Self-care: Assessing the respondent's ability to perform self-care activities (e.g., bathing, dressing).
    - Usual activities: Assessing the respondent's ability to perform usual activities (e.g., work, study, housework, family or leisure activities).
    - Pain/discomfort: Assessing the respondent's level of pain or discomfort.
    - Anxiety/depression: Assessing the respondent's level of anxiety or depression.
2. **Levels**: Within each dimension, respondents indicate their current health state by selecting one of three levels:
    - No problems
    - Some problems
    - Extreme problems
3. **Scoring**: The EQ-5D descriptive system can be converted into a health utility index by applying country-specific value sets. These value sets are based on preferences elicited from general population surveys using methods such as time trade-off (TTO) or visual analogue scale (VAS). Health utility index scores typically range from 0 (representing death or a health state equivalent to death)

to 1 (representing full health or perfect health). Negative scores are possible, indicating health states considered worse than death.

4. **EQ VAS**: In addition to the EQ-5D descriptive system, the EQ-5D questionnaire includes a visual analogue scale (EQ VAS) where respondents rate their current health status on a vertical scale ranging from 0 (worst imaginable health state) to 100 (best imaginable health state).
5. **Versions**: The EQ-5D questionnaire is available in several versions, including the EQ-5D-3L (3-level version) and the EQ-5D-5L (5-level version), which offers greater sensitivity by providing five response levels for each dimension.

The EQ-5D questionnaire is used to assess and quantify health-related quality of life from the patient's perspective, allowing for comparisons of health outcomes across different populations, interventions, and healthcare settings. Its simplicity and ease of administration make it a valuable tool for health outcome measurement in both research and clinical practice.

QALY value in US dollars, 2024

The value of a Quality-Adjusted Life Year (QALY) in US dollars in 2024 is not a fixed or standard figure. The concept of a QALY is used primarily in health economics and healthcare decision-making to assess the cost-effectiveness of medical interventions. The value of a QALY can vary depending on several factors, including the perspective of the analysis, the healthcare system context, the specific intervention being evaluated, and the willingness-to-pay threshold used by decision-makers.

In the United States, there isn't a universally accepted value for a QALY as there is in some other countries with government-funded healthcare systems. Instead, decision-makers such as insurers, healthcare providers, and policymakers may use different methods or criteria to determine the value of a QALY within their specific contexts.

Some economic evaluations in the US healthcare system may use a willingness-to-pay threshold, which represents the maximum amount that society is willing to pay for a QALY gained. This threshold can vary but is often cited to be in the range of $50,000 to $150,000 per QALY gained. However, it's important to note that these values are not fixed and can vary depending on the context and the preferences of decision-makers.

In summary, the value of a QALY in US dollars in 2024 is not a set figure and would depend on the specific analysis, context, and willingness-to-pay threshold used in the evaluation.

How the dollar value of 1 QALY is determined

The dollar value of 1 Quality-Adjusted Life Year (QALY) is not determined based on an individual's income or earnings. Instead, it is typically assessed in health economics

studies and healthcare decision-making processes using a willingness-to-pay (WTP) threshold or cost-effectiveness threshold.

The willingness-to-pay threshold represents the maximum amount that society is willing to pay for one additional QALY gained from a healthcare intervention. This threshold is often determined based on various factors, including societal preferences, budget constraints, opportunity costs, and the value of health improvements relative to other goods and services.

Decision-makers such as government agencies, insurers, and healthcare providers may use different methods to establish a willingness-to-pay threshold within their specific contexts. Some countries with government-funded healthcare systems have established explicit thresholds for cost-effectiveness analysis. For example, in the United Kingdom, the National Institute for Health and Care Excellence (NICE) has historically used a threshold range of £20,000 to £30,000 per QALY gained as a reference point for assessing the cost-effectiveness of healthcare interventions within the National Health Service (NHS).

In the United States, willingness-to-pay thresholds may vary depending on the payer, the specific healthcare intervention being evaluated, and other contextual factors. While there is no universally accepted threshold, some studies have suggested thresholds in the range of $50,000 to $150,000 per QALY gained based on empirical analyses and surveys of societal preferences.

It's important to note that the dollar value of a QALY is not directly tied to an individual's income or earnings. Instead, it reflects societal preferences and the value placed on health improvements relative to other goods and services. Therefore, 1 QALY gained from a healthcare intervention would generally be considered equally valuable regardless of the individual's income level.

The difference in estimated values of a Quality-Adjusted Life Year (QALY) between Harvard Professor David Cutler's estimation in 2003, in his book Your Money or Your Life, and current estimations can be attributed to several factors:

1. **Methodological Differences**: Different researchers may use different methods and assumptions to estimate the value of a QALY, leading to variation in results. David Cutler's estimation in 2003 may have relied on different data sources, economic models, or approaches compared to more recent estimations.
2. **Changes in Healthcare Costs**: Healthcare costs and the cost-effectiveness of medical interventions can change over time due to factors such as advances in medical technology, changes in treatment patterns, and shifts in healthcare delivery models. These changes can affect the perceived value of health improvements and may contribute to differences in estimated values of a QALY over time.

3. **Changes in Societal Preferences**: Societal preferences regarding the value of health improvements and the allocation of healthcare resources may evolve over time. Attitudes towards healthcare spending, willingness to pay for health benefits, and ethical considerations can influence the perceived value of a QALY and may vary across different time periods and contexts.
4. **Inflation Adjustments**: While inflation is a factor to consider when comparing economic values over time, it's important to note that the value of a QALY is not solely determined by inflation. Changes in healthcare costs, healthcare utilization patterns, and societal preferences can also influence the estimated value of a QALY, independent of inflation.
5. **Data Availability and Quality**: The availability and quality of data used to estimate the value of a QALY may have improved over time, leading to more accurate and reliable estimates in recent years. Advances in data collection methods, health outcomes research, and economic modeling techniques can contribute to more robust estimations of the value of health outcomes.

Overall, the discrepancy in estimated values of a QALY between David Cutler's estimation in 2003 and current estimations may reflect differences in methodology, changes in healthcare costs and societal preferences, and improvements in data availability and quality over time. It's essential to interpret estimates of the value of a QALY within the specific context of the analysis and to consider the underlying assumptions and limitations of the methods used to generate these estimates.

Quality-Adjusted Life Years (QALYs) have been widely used in health economics and healthcare decision-making for several decades, and the theory and methodology behind QALYs are generally accepted within the healthcare research and administration community. Here are some reasons why QALYs are widely accepted:

1. **Standardized Measure**: QALYs provide a standardized and quantitative measure of health outcomes that allows for comparisons across different health interventions, populations, and healthcare settings. This makes QALYs a valuable tool for assessing the effectiveness and value of healthcare interventions in a consistent and transparent manner.
2. **Incorporation of Patient Preferences**: QALYs incorporate patient preferences for health states, as measured through preference-based instruments such as the EuroQol 5-Dimension (EQ-5D) questionnaire or the Health Utilities Index (HUI). By capturing individuals' subjective valuations of health-related quality of life, QALYs provide a patient-centered perspective on health outcomes.
3. **Cost-Effectiveness Analysis**: QALYs are commonly used in cost-effectiveness analysis to assess the value for money of healthcare interventions. By comparing the costs of interventions with the health benefits in terms of QALYs gained,

decision-makers can prioritize resource allocation and identify interventions that offer the greatest health improvements for a given budget.

4. **Regulatory and Reimbursement Decisions**: QALYs are used by government agencies, insurers, and healthcare providers to inform regulatory decisions, reimbursement policies, and coverage determinations. For example, agencies such as the National Institute for Health and Care Excellence (NICE) in the United Kingdom use QALYs to assess the cost-effectiveness of healthcare interventions and provide guidance on their adoption within the healthcare system.
5. **Transparency and Accountability**: QALYs promote transparency and accountability in healthcare decision-making by providing a clear and quantifiable measure of health outcomes. By explicitly considering both the costs and benefits of healthcare interventions in terms of QALYs, decision-makers can justify resource allocation decisions and prioritize interventions that offer the greatest health gains per dollar spent.

While QALYs are widely accepted and commonly used in healthcare research and administration, it's important to acknowledge that they are not without limitations. Criticisms of QALYs include concerns about equity, cultural differences in valuing health states, and challenges in measuring complex health outcomes comprehensively. Despite these limitations, QALYs remain a valuable tool for evaluating health outcomes and informing resource allocation decisions in healthcare.

QALYs and Medicare for All

The inclusion of Quality-Adjusted Life Years (QALYs) in a Medicare for All system would depend on various factors, including the specific design of the healthcare system, policy priorities, and political considerations. Here are some points to consider:

1. **Cost-Effectiveness Analysis**: Medicare for All would likely aim to provide comprehensive healthcare coverage to all residents of the United States. While cost containment measures would be necessary to ensure the sustainability of the healthcare system, the extent to which cost-effectiveness analysis, including the use of QALYs, would be incorporated into decision-making could vary.
2. **Political Considerations**: The use of QALYs in healthcare decision-making is a topic of debate, and opinions on their appropriateness and ethical implications vary. Some stakeholders argue that QALYs can help ensure efficient resource allocation and promote value-based healthcare delivery, while others raise concerns about equity, fairness, and the potential for discriminatory practices.
3. **Patient-Centered Care**: Medicare for All would likely prioritize patient-centered care and equitable access to healthcare services. While QALYs provide a standardized measure of health outcomes, they may not fully capture individual

preferences, values, and priorities. As such, there may be a need to balance the use of QALYs with other considerations, such as patient-reported outcomes and shared decision-making.

4. **Regulatory and Reimbursement Policies**: If QALYs were to be incorporated into a Medicare for All system, they could potentially inform regulatory decisions, reimbursement policies, and coverage determinations. Government agencies responsible for healthcare oversight and administration, such as the Centers for Medicare & Medicaid Services (CMS), could use QALYs to assess the cost-effectiveness of healthcare interventions and guide resource allocation decisions.
5. **Public Perception and Acceptance**: The inclusion of QALYs in a Medicare for All system would likely be subject to public scrutiny and debate. Stakeholder engagement, transparency, and accountability would be important considerations in shaping healthcare policy and ensuring that decision-making processes are perceived as fair and equitable.

Ultimately, the inclusion of QALYs in a Medicare for All system would require careful consideration of the benefits, challenges, and implications for healthcare delivery, patient outcomes, and healthcare spending. Policymakers would need to weigh the potential advantages of using QALYs to inform resource allocation decisions against concerns about equity, access, and patient-centered care.

In Canada, the healthcare system is publicly funded and administered at the provincial and territorial level, with each province and territory responsible for delivering healthcare services to its residents. While Canada's healthcare system, often referred to as Medicare, provides universal coverage for medically necessary healthcare services, the use of Quality-Adjusted Life Years (QALYs) to determine treatment approval or rejection varies across jurisdictions.

Generally, Canadian healthcare decision-making processes prioritize evidence-based medicine, clinical effectiveness, and cost-effectiveness in treatment decisions. Health technology assessment (HTA) agencies, such as the Canadian Agency for Drugs and Technologies in Health (CADTH) and the Institut national d'excellence en santé et en services sociaux (INESSS) in Quebec, play a significant role in evaluating the clinical and economic evidence for healthcare interventions.

While QALYs are commonly used in health economics and healthcare decision-making worldwide, including in countries with government-funded healthcare systems such as the United Kingdom, their use in Canada may vary. Some HTA agencies in Canada may incorporate QALYs or similar measures of health-related quality of life into their assessments of healthcare interventions to assess their cost-effectiveness and value for money.

However, the extent to which QALYs are used to inform treatment approval or rejection decisions in Canada can depend on several factors, including jurisdictional differences,

institutional practices, stakeholder preferences, and public policy priorities. Other considerations, such as patient preferences, equity, and feasibility, may also influence healthcare decision-making in Canada.

In summary, while QALYs may be used as part of health technology assessment processes in Canada, their use and influence on treatment approval or rejection decisions may vary across provinces and territories. Decision-makers in Canada typically consider a range of factors, including clinical effectiveness, cost-effectiveness, patient preferences, and equity, when making decisions about the allocation of healthcare resources and coverage of healthcare interventions.

In France, healthcare decision-making is guided by the principles of solidarity, universality, and equity, with a strong emphasis on ensuring access to high-quality healthcare for all citizens. The French healthcare system, known as "l'Assurance Maladie" or "la Sécurité Sociale," is based on a mix of public and private financing and delivery of healthcare services.

While Quality-Adjusted Life Years (QALYs) are commonly used in health economics and healthcare decision-making in some countries, such as the United Kingdom, their use in France may be less prevalent. Instead, the French healthcare system relies on a combination of clinical effectiveness, evidence-based medicine, and economic evaluation to inform treatment approval or rejection decisions.

The French National Authority for Health (Haute Autorité de Santé, HAS) plays a key role in evaluating the clinical and economic evidence for healthcare interventions and providing recommendations to inform healthcare policy and practice. HAS conducts health technology assessments (HTAs) to assess the clinical benefits, safety, and cost-effectiveness of new drugs, medical devices, procedures, and healthcare technologies.

While HAS may consider measures of health-related quality of life, such as QALYs, as part of its HTA processes, the specific methods and criteria used to evaluate healthcare interventions in France may vary. HAS takes into account a range of factors, including clinical effectiveness, patient safety, public health impact, and economic considerations, when making recommendations about the adoption and reimbursement of healthcare interventions.

Decision-making in France typically emphasizes evidence-based medicine, clinical effectiveness, and patient-centered care to ensure the delivery of high-quality healthcare services to the population.

While the British National Health Service (NHS) incorporates Quality-Adjusted Life Years (QALYs) into its health technology assessment processes to assess the cost-effectiveness of healthcare interventions, and to provide guidance on treatment decisions, it's not accurate to characterize the French system as allowing for more subjective decisions made solely by individual doctors.

Both the NHS in the UK and the French healthcare system (l'Assurance Maladie) rely on evidence-based medicine, clinical guidelines, and health technology assessment to inform treatment decisions. Here's a nuanced view:

1. **British National Health Service (NHS)**:
    - The NHS uses QALYs and other measures of health outcomes as part of its health technology assessment processes conducted by organizations like the National Institute for Health and Care Excellence (NICE). These assessments inform recommendations about which healthcare interventions should be funded and provided within the NHS.
    - While NICE provides guidance on the cost-effectiveness of healthcare interventions, individual treatment decisions are typically made by healthcare professionals in consultation with patients, taking into account clinical considerations, patient preferences, and other factors.
2. **French Healthcare System (l'Assurance Maladie)**:
    - In France, the Haute Autorité de Santé (HAS) conducts health technology assessments to evaluate the clinical and economic evidence for healthcare interventions. HAS provides recommendations to inform healthcare policy and practice, including reimbursement decisions.
    - Like in the UK, individual treatment decisions in France involve healthcare professionals (including doctors) working with patients to make decisions based on clinical evidence, patient preferences, and other relevant factors.

In both systems, treatment decisions are guided by a combination of clinical evidence, patient preferences, and healthcare professionals' expertise. While QALYs and health technology assessment may play a more prominent role in decision-making within the NHS, and individual doctors in France may have more autonomy, both systems aim to ensure access to high-quality, evidence-based healthcare for their populations. Ultimately, treatment decisions are made collaboratively between healthcare professionals and patients, taking into account the best available evidence and the individual needs and preferences of the patient.

Review Questions

Some Key Utilization Drivers

Chronic disease treatments consume about 85% of all healthcare spending with about half of Americans – that's roughly 160 million folks - having one or more chronic diseases. The number of chronic disease patients grows by 7 – 8 million every 5 years.[82]

The ten most common chronic conditions are arthritis, cancer, chronic obstructive pulmonary disease, coronary heart disease, asthma, diabetes, hepatitis, hypertension, stroke and weak or failing kidneys. These often – not always – have a lifestyle cause, a combination of excess body weight, suboptimal nutrition and insufficient exercise.

We have known about these chronic diseases, their costs and their causes for years, yet they continue and increase. Why? This chapter will suggest answers and focus on diabetes as a prime example of a lifestyle-caused chronic condition.

Diabetes occurs when your body produces too little insulin and results in you having too much sugar in your bloodstream. The disease comes in 2 basic forms: Type 1, an autoimmune disorder typically identified in kids for which there is no cure and Type 2, largely behaviorally based, in which your body doesn't use insulin well and can't regulate sugar in blood stream. About 95% of diabetic population has Type 2. It is largely preventable and potentially reversable. (Type 1 is neither.) We'll focus on Type 2 in this chapter.

Diabetes increases your risk of developing many of the chronic conditions listed above, perhaps most notably hypertension, failing kidney and heart disease. We might consider it a common cause of and link among America's epidemic of chronic diseases. That's admittedly an overstatement, though not a huge one.

Diabetes is defined by your number on one of 4 medical tests:

- Your A1C (aka hemoglobin A1C or HbA1c) above 6.5%
- Your fasting blood sugar above 126 mg/dL
- Your glucose tolerance above 200 mg/dL 2 hours after drinking a liquid. You need to fast the night before.
- Your random blood sugar above 200 mg/dL

About 37 million Americans have diabetes. It is the 7th leading cause of death and the #1 cause of kidney failure, lower limb amputations and blindness in the US. The number of diabetics has doubled in the past 20 years.

[82] The Relation of the Chronic Disease Epidemic to the Healthcare Crisis, Holman, American College of Rheumatology, Feb 19, 2020

Two syndromes / conditions predict a patient becoming diagnosed with diabetes: 'prediabetes' and 'metabolic syndrome'. Though overlapping in some ways, these are distinct. Both provide a warning to patients about their likely diabetes diagnosis future.

Prediabetes is a narrowly defined condition in which you have too much sugar in your bloodstream though not enough to have full blown diabetes. By the CDC's definition, you have prediabetes if tests determine the following about your blood sugar:

- Your A1C or hemoglobin A1C or HbA1c test is 5.7 and 6.4%.
    - Full blown diabetes is defined 6.5% or greater.
- Your fasting blood sugar test is 100 – 125 mg/dL.
    - Full blown diabetes is defined as 126 mg/dL or greater.
- Your glucose tolerance test is 140 – 199 mg/dL.
    - Full blown diabetes is defined as above 200 mg/dL.

Here's a summary chart.[83]

Result*	A1C Test	Fasting Blood Sugar Test	Glucose Tolerance Test	Random Blood Sugar Test
Diabetes	6.5% or above	126 mg/dL or above	200 mg/dL or above	200 mg/dL or above
Prediabetes	5.7 – 6.4%	100 – 125 mg/dL	140 – 199 mg/dL	N/A
Normal	Below 5.7%	99 mg/dL or below	140 mg/dL or below	N/A

About 96 million Americans have prediabetes including, according to Dr. Dariush Mozaffarian, dean of the Tufts Friedman School of Nutrition Science and Policy, about 1 in 4 American teenagers.[84] The condition increases your risk of developing Type 2 diabetes and suffering from all the problems associated with and resulting from it.

Metabolic syndrome, the other common precursor to full blown diabetes, is defined more broadly, again by the results of medical tests. It is a cluster of medical conditions occurring together, first identified in 1998. Though some researchers quibble about the exact numbers that define it, here is a generally accepted definition. [85]

- Obesity or having a BMI > 30.
    - Alternatively, males have a waist circumference >40 inches, females > 35.

[83] CDC Diabetes Basics https://www.cdc.gov/diabetes/basics/getting-tested.html

[84] Boston Globe, Nov 22, 2021 'The Obesity Pandemic Has Made Covid Much More Deadly'
[85] This definition comes from Harvard Health, Shmerling, Metabolic Syndrome is On the Rise, Oct 2, 2020 and AARP, Levine, Metabolic Syndrome

- Blood triglyceride levels above 150 mg/dL
- Low HDL (good) cholesterol, levels below 40 mg/dL in men or 50 in women
- High blood pressure, greater than 130/85 or on blood pressure medications.
    - For people over 60 years old, the American Heart Association suggests levels above 150/90
- Elevated blood sugar, having a fasting blood glucose level above 100 mg/dL, an A1C above 5.7 or taking diabetes medications.

Researchers seem to suggest that having 3 or more of these indicators defines someone has having metabolic syndrome.

Some 37% of Americans suffer from metabolic syndrome with the risk increasing as you age; some 50% of 60-year-olds have it including almost 60% of Hispanics over 60. [86]

People with metabolic syndrome are about 4x more likely to develop diabetes than healthy folks, 3x more likely to suffer a heart attack or have a stroke, and 55% more likely to develop kidney disease. In addition, according to the National Heart, Lung and Blood Institute[87], the syndrome increases your risk of developing

- Coronary heart disease
- Erectile disfunction
- Heart failure
- Inflammation and immune system problems – raise risks of complications from infections and Covid
- Organ damage esp pancreas, liver, gall bladder, kidneys
- Polycystic ovary syndrome (PCOS)
- Pregnancy complications such as preeclamsia, eclampsia, and gestational diabetes
- Problems with thinking and memory
- Sleep apnea and
- Certain cancers.

Metabolic syndrome, like prediabetes and diabetes itself, is largely preventable by maintaining a healthy weight, eating a healthy diet, exercising regularly and avoiding smoking.[88]

[86] AARP, Metabolic Syndrome, Levine

[87] National Heart, Lung and Blood Institute https://www.nhlbi.nih.gov/health/metabolic-syndrome/living-with

[88] Ibid.

This link between obesity, defined as having a Body Mass Index greater than 30, and diabetes is so strong that some researchers invented a new word for it: diabesity.[89] As the Cleveland Clinic put it in 2021:

> The pancreas creates insulin, which is a hormone that moves glucose out of your blood. Normally, insulin transports glucose to your muscles to use right away for energy or to the liver, where it's stored for later.
>
> But when you have diabesity, your cells resist letting insulin move glucose into them. To make matters worse, the area of your liver where excess glucose is usually stored is filled with fat. It's like trying to put furniture in a room that's already packed. With nowhere to be stored, the glucose remains in the bloodstream.
>
> Your pancreas becomes overworked, and as a result, it wears out. It starts producing less insulin. Diabetes develops and then quickly worsens if the fat resistance remains

The CDC calls diabetes the most expensive medical condition in the US, though no one knows for sure how much it costs because it affects so many other medical conditions. Should we include leg amputations as diabetes costs? The associated prosthetics? Unclear.

The CDC estimated direct diabetes costs and related reduced productivity at the lower end, $327 billion in 2017. That's about $500 billion today give a take a few dozen billion, about 14% of healthcare spending. That's the low estimate.

On the higher end, the American Diabetes Association claims that 25% of all US healthcare spending goes to diabetes and related treatments.[90] I don't know who's right here, but under either estimate, diabetes is a big deal and very expensive.

We know a lot about it, understand its causes and estimate its costs as high under any reasonable assumptions. Why can't we prevent it?

Why We Don't Prevent Diabetes
and cut healthcare spending while improving American's health

The classic advice for treating metabolic syndrome or pre-diabetes, the two typical precursors of full blown diabetes, is lifestyle modification. This traditionally has 2 components: dietary improvement and exercise increase. In short, eat a bit less of primarily healthier foods, and exercise a bit more.

---

[89] Cleveland Clinic, November 2021 'Diabesity: How Obesity is Related to Diabetes', slightly edited in the following quote.

[90] American Diabetes Association. Economic costs of diabetes in the US in 2017. *Diabetes Care.* 2018;41:917–928.

Easier said than done.

Let's put some numbers and costs into this advice. We'll use American males as our case study here simply to present an analytic framework. This will help us understand our dismal failure to prevent diabetes.

> We could have used American females instead of males – same methodology, just different numbers. Ditto for other socio-economic groups: Latino women, Appalachian residents, Appalachian single parent families, elderly urban men, etc. Same methodology, different numbers.

We'll first address the dietary part of that old 'diet and exercise' mantra and consider calorie **quantity** and **quality**.

In 2022, the average American male – we'll call him Joe - was 5 foot 9 inches tall, 38 years old, exercised 1 – 3 times per week and weighed 198 lbs.[91] He had a BMI of 29.2, almost obese. He gained about 1.5 pounds per year. According to online calorie consumption estimates[92], he needs to eat about 2650 calories per day; that's the amount necessary to maintain his 1.5 pound / year weight increase.

We'll assume that Joe is single for analytic ease.

Joe needs to reduce his daily calorie intake to 2237 to lose ½ a pound per week. That would get him down to 172 pounds in a year for a BMI of 25.4, slightly overweight but not nearly obese. It would probably get him out of the prediabetic or metabolic syndrome condition and help him avoid diabetes.

> I choose the ½ pound per week weight loss as a moderate amount; I didn't want to bias this analysis with a more aggressive number. Some research suggests that a faster weight loss, with the associated greater degree of daily discomfort /

---

[91] Average weight American male adult from healthline.com https://www.healthline.com/health/mens-health/average-weight-for-men

Average height American male adult from World Population Review https://worldpopulationreview.com/state-rankings/average-height-by-state

Average age Americans in 2022 from World Population Review https://worldpopulationreview.com/state-rankings/median-age-by-state

How Much Do Americans Exercise, Romero, Washingtonian, May 12, 2012

Daily calories to lose ½ lb / week from www.Calculator.net

Daily calories to gain 1.5 lbs / year from www.Calculators.net

Average American annual weight gain from Washington Post, 'Look How Much Weight You're Going to Gain' 1/29/2016

[92] In this case I used www.calculator.net.

hunger, leads to a quicker termination of this dietary program with the associated relatively fast rebound back to the original weight.

In other words, I want to stack the odds in Joe's favor.

We'll assume here that Joe spends 10% of his income on food. That comes from the US Department of Agriculture's 2021 estimate. [93]

We know that Joe earns $1,144 / week – that's $59,488 per year - thanks to various Bureau of Labor Statistics studies.[94] That means he has $16.34 available for food each day, 7 days / week, a combination of eating in and eating out. The BLS says we split this about 50/50.

If Joe was a Black or Hispanic male – an example of some specific socio-economic groups – he would only earn $820 / week ($42,640 per year) [95] meaning $11.71 available for food.

Or if Joe were a woman, a different socio-economic group, he would earn, on average, about 15% less and need about 10% fewer calories, than an average American male.[96]

Quick quantitative summary:

- Joe currently eats about 2650 calories per day. He gains about 1.5 pounds per year.
- He needs to reduce his daily caloric intake to 2237 to lose ½ pound per week or 26 pounds / year. That's 13% of his body weight.
- He has $16.34 available for food daily.

Let's turn now from calorie quantity to calorie **quality**. The most recent government recommendation is that our food plate consist of 50% fruits and vegetables, 25% grains – mainly whole grains – and 25% protein and dairy. That's a rough approximation of the

---

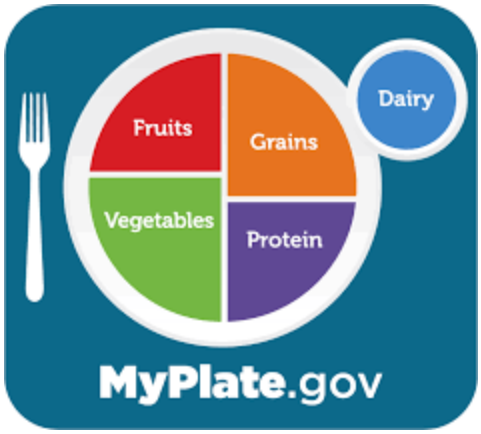
[93] US Dept of Agriculture estimate 2021, https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=76967#:~:text=In%202021%2C%20U.S.%20consumers%20spent,from%20home%20(5.1%20percent).

[94] Overall Median weekly earnings from BLS, wkyeng (5).pdf, July 29, 2022, 'Usual Weekly Earnings of Wage and Salary Workers Second Quarter 2022'

[95] Black and Hispanic male earnings from BLS, 'TED, The Economics Daily', Oct 25, 2021, https://www.bls.gov/opub/ted/2021/median-weekly-earnings-were-916-for-women-in-third-quarter-2021-83-3-percent-of-mens-earnings.htm#:~:text=Source%3A%20U.S.%20Bureau%20of%20Labor,End%20of%20interactive%20chart.&text=In%20the%20third%20quarter%20of%202021%2C%20median%20weekly%20earnings%20for,the%20median%20for%20White%20men.

[96] Earning estimates from various BLS studies. Calorie estimates from calculator.net; I simply substituted 'female' for 'male' using Joe's numbers. The calculator estimated 2008 calories / day for a woman instead of 2237 for Joe.

US Department of Agriculture's MyPlate, image below. You can google MyPlate.gov for more.



I don't like this graphic though. It's too cartoonish in my opinion and not detailed enough as a guide. I prefer the Canadian version, below. It's essentially the same – see the small dairy dish in the protein section as opposed to the small dairy circle in the American MyPlate version - but with more impactful graphics in my opinion. The Canadian version shows specific foods in each category. We'll use it in this chapter rather than the MyPlate image, again, only for presentation reasons. Feel free to disagree with my artistic taste.

The Canadian Food Plate

Water is the recommended drink.

You can quickly see the breadth and types of foods in each category and the approximate serving size of each.

> Proteins, for example, include nuts, beans, legumes and eggs, not just chicken, beef, pork, and fish and take up a quarter of your meal plate.
>
> Fruits and vegetables come in lots of different colors and flavors, with that variety apparently providing nutritional benefits.

This version seems to suggest that we eat lots of different vegetables, not just potatoes and tomatoes, the most commonly consumed vegetables in the US, which together dwarf all the others combined.[97]

Ditto lots of different fruits, not just apples and oranges, the most commonly consumed fruits in the US, which, along with bananas, dwarf the others.[98]

---

[97] Potatoes and tomatoes most commonly consumed vegetables, US Economic Research Service, Department of Agriculture, 2019 https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=58340

[98] Apples and oranges are top US fruit choices, US Economic Research Service, Department of Agriculture, 2019 https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=58322

That's why I like this graphic: it's impactful and suggests what to eat simply and comprehensibly.

It also tells you what to avoid. Look at what's not on this plate:

- Corn
- Sugar
- Sweeteners
- Oils, salad dressing
- Refined, bleached flour
- Processed foods and snacks like chips, cookies & baked goods
- Sugary drinks
- Beer, wine & alcohol

We eat lots of these foods. Consider these summaries from a 2016 Pew study of American food and nutrition practices:[99]

> Baked goods, a $35 billion / year market segment not on the Food Plate, includes refined flour and sugar.
>
> Sweeteners, about 15% of daily calories for the average American, include sugar and corn based products (in addition to non-caloric options like aspartame). A can of regular Coke contains 140 calories for example. Americans consume about 40 gallons of soft drinks per person annually, 72% non-diet.[100] Soft drink sales run about $318 billion per year. Not on the Food Plate.
>
> Snacks, about 27% of children's daily caloric intake (remember Tufts School of Nutrition Dean Dr. Mozaffarian's estimate that 1 in 4 American teenagers is pre-diabetic?), mainly salty snacks, candy, cookies, and sugary drinks. Salty snacks, ice cream, candy and cookies are a $70 billion / year industry segment. Not on the Food Plate.
>
> Oils for cooking, flavoring, and salad dressing, about 23% of our daily calories. On average. Americans eat about 36 pounds of these per year. Not on the Food Plate.
>
> Processed foods including hydrogenated oils, HFCS, flavoring agents and emulsifiers used in foods like potato chips, sugary drinks & processed meat, not on the Food Plate. Processed foods tend to lead to higher weight gain than unprocessed.[101]

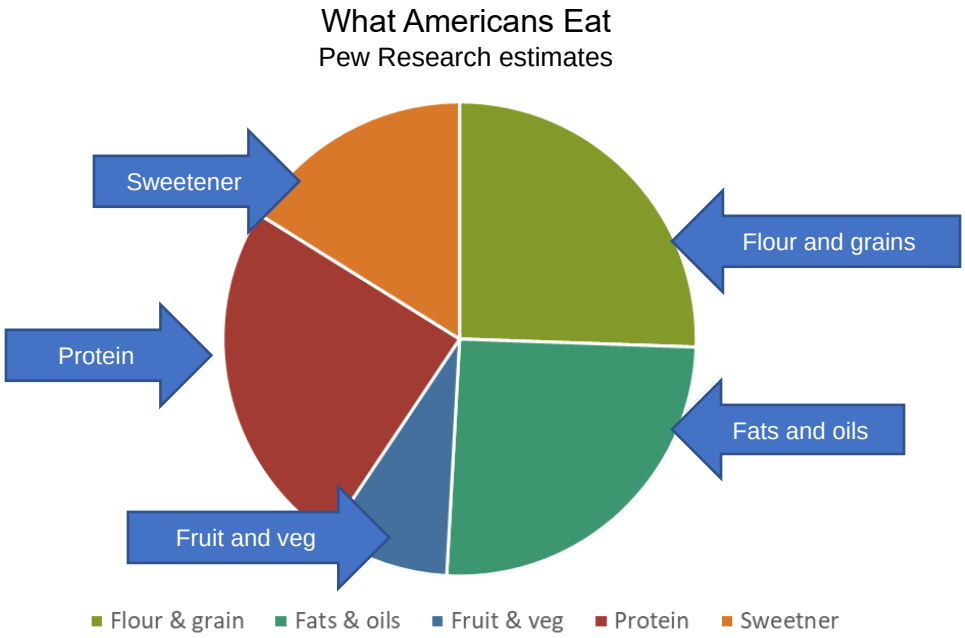
---

[99] What's On Your Table: How America's Diet Has Changed Over the Decades, Drew Desilver, Dec 13, 2016

[100] Diet vs regular soda percent estimates from statistica.com https://www.statista.com/statistics/1133019/carbonated-soft-drinks-regular-vs-diet-volume-us/

[101] First randomized, controlled study finds ultra processed diet leads to weight gain, Clinical Center News from NIH, 2019 https://clinicalcenter.nih.gov/about/news/newsletter/2019/summer/story-01.html

Instead of eating the high quality calories shown on the Food Plate above, here, according to the Pew Research folks, is what we really eat:



I find this estimate credible based on supermarket shelf space allocations and restaurant menus.

> Supermarkets allocate shelf space according to food sales, more to foods that sell the best. See, for example, the space allocated to salad dressing, cookies and sweetened breakfast cereal.
>
> Restaurants offer meals that people request the most. See, for example, in moderate priced, popular restaurants - the large chains for example – the frequency of 'burger and fries' or 'chicken, potato and small vegetable of the day' or 'salad' generally consisting only of lettuce, tomato and carrot shavings doused in dressing (many restaurants offer more dressing options than vegetable variety). Compare to the frequency of fruit offerings.

Joe, our typical American male, thus faces 3 tasks in the attempt to improve his diet and thus avoid diabetes.

- Eat fewer calories.
- Eat higher quality calories.
- Stay within his $16.34/day food budget.

How might he accomplish all this?

Composite Daily Menus

Let’s compare the daily costs of Joe’s current diet and a healthier one designed to prevent diabetes. I’ve developed two sample day’s meals – one called Food Plate based on the Canadian Food Plate above and the other called Typical based on the Pew analysis. I used food prices at my local Shaw’s supermarket in Easton, Massachusetts in October 2022.

These diets are composites of what people *should* eat and what they often *in fact* eat. In designing these menus – particularly the typical one - I considered supermarket shelf space. I choose popular items meaning lots of people buy and eat them.

We have, of course, endless food options and combinations in this country. I present this analysis in part to show calorie and cost data and in part to show a methodology. Do a similar analysis yourself and see your own results. I suspect they will be close to mine below.

The healthier diet below comes to 2239 calories for a day (very close to our theoretical goal of 2237); the typical diet comes to 2648 calories (very close to our daily estimate of 2650). Some minor rounding issues, a calorie or penny here or there. But look at the cost difference.

Breakfast, Food Plate

- 2 jumbo eggs @ 90 calories each = 180 calories, $1.33
- 2 pieces multigrain toast @ 100 calories each = 220 calories, $.66
- Butter @ 50 calories / serving = 50 calories, $.16
- 1 banana = 100 calories, $.23
- Black coffee = 2 calories, $.20
- 552 calories
- $2.58 at Shaw’s, Easton

Breakfast, typical diet

- Shaw’s honey bran muffin = 420 calories, $1.25
- Coffee = 2 calories, $.20
- Cream @ 35 calories per serving of Coffeemate = 35 calories, $.07
- Sugar @ 30 calories per serving of granular sugar = 30 calories, $.04
- 487 calories
- $1.56 at Shaw’s, Easton

Lunch, Food Plate

- Spinach salad w/ tomato, carrots, yellow pepper, beets (130 cal total, $5.02)
    - 1 serving of fresh spinach = 20 calories, $1.71
    - Half a tomato = 45 calories, $1.50
    - Half a serving of carrots = 15 calories, $.16
    - Half a yellow pepper = 25 calories, $.85
    - Half a serving of beets = 25 calories, $.80
- Oil & vinegar dressing = 84 calories, $.22

- .3 lb chicken breast @ 748 calories per pound = 224 calories, $1.20
- 1 pita = 90 calories, $.37
- Apple = 95 calories, $.66
- 623 calories
- $7.47 at Shaw's, Easton

Lunch, typical diet

- Ham & cheese on sub roll with mustard & iceberg lettuce (538 cal total, $3.20)
    - Ham,.25 pound @ 885 calories per pound = 221 calories, $2.00
    - Cheese, 1 slice = 100 calories, $.30
    - Sub roll = 200 calories, $.50
    - French's mustard, 1 serving = 1 calorie, $.03
    - Iceberg lettuce .15 of a head = 16 calories, $.37
- Bag of chips from multi-bag box = 150 calories, $.52
- 3 Oreos = 160 calories, $.26
- Apple = 95 calories, $.66
- Coca Cola, can = 140 calories, $.23
- 1083 calories
- $4.88 at Shaw's, Easton

Dinner, Food Plate

- Basmati rice bowl with broccoli, summer squash, snap peas, green beans, .4 lb salmon, soy (872 calorie total, $8.48)
    - 2 cups Basmati rice @ 170 calories per cup = 340 calories, $.38
    - 1/3 pound of broccoli = 51 calories, $.66
    - 1/3 pound of summer squash = 24 calories, $.66
    - 1 serving of sugar snap peas = 35 calories, $1.00
    - ¼ pound of green beans = 25 calories, $.82
    - .4 pounds of salmon = 378 calories, $4.80
    - 1 tablespoon low salt soy sauce = 20 calories, $.16
- Blueberries (.5 pint) = 115 calories, $1.00
- Strawberries (.5 lb.) = 74 calories, $2.50
- 1061 calories
- $11.97 at Shaw's, Easton

Dinner, typical diet

- Pasta with sauce, ground beef, grated cheese (578 calories,$2.55 total)
    - Barilla pasta, 1 serving = 200 calories, $.37
    - Prego traditional pasta sauce, 1 serving = 70 calories, $.80
    - 80% ground beef, .25 pounds = 288 calories, $1.25
    - Grated Kraft parmesan cheese, 1 serving = 20 calories, $.13
- Green salad with dressing (150 calories)
    - Dole American salad bag, 2 servings = 30 calories, $1.50
    - Ken's House Italian dressing, 1 serving = 120 calories. $.25
- Canned peaches, 1 serving = 100 calories, $.50
- Friendly's vanilla ice cream, ½ serving = 105 calories, $.28

- Bottle of Budweiser beer = 145 calories, $1.38
- 1078 calories
- $6.46 total, food from Shaw's, Easton, beer from Walmart

You can see my spreadsheets at the end of this chapter for additional details.

> I encourage you to use this methodology with your dietary decisions. You can adjust the daily calorie targets to fit your own needs, then insert your foods of choice.

We learn from this process that 2237 healthier Canadian Food Plate calories cost $22.02 / day. Those are the foods Joe is supposed to eat, with meals designed to lose ½ pound per week. If Joe spends 10% of his salary on food as the Bureau of Labor Statistics suggests, then he needs to earn at least $80,000 per year to afford this menu.

But Joe only earns $59,488 per year. We learned that earlier in this chapter. He can't afford the healthy Food Plate!

> Imagine that Joe is a Black or Hispanic male. He'd only earn $42,640 per year making the Food Plate even more unaffordable.
>
> Try this with your socio-economic demographic of interest and see what you learn.

Now let's consider the 2648 calorie typical diet. It only costs $12.90 / day, making it affordable to people earning at least $47,000 per year. Joe earns that much. It is tasty and satisfying.

But he gains 1.5 pounds per year on it and risks prediabetes, metabolic syndrome and diabetes.

We're beginning to learn why we don't prevent diabetes by following the 'eat more fruits, vegetables and whole grains, less processed food, fat and sugar' mantra. It's too expensive.

This analysis only addressed foods prepared at home using one particular supermarket's prices. I ran a similar analysis on restaurants, comparing healthier and typical meals at Cheesecake Factory and D'Angelo's. It's methodologically easy; simply look up your items of choice on the restaurant's menu and nutritional guide – sometimes they're listed together on the menu - then divide.

Here's what I found, again all in October 2022.

> At the Cheesecake Factory, 'The Club' sandwich with turkey, bacon, bread, French Fries, lettuce, tomato and mayonnaise contains 1740 calories and costs $17.95. That's 1.0¢ per calorie.

The Cheesecake Factory's Skinnylicious Factory Chopped Salad including dressing contains 530 calories and costs $15.95. That's 3.0¢ per calorie, 3x more per calorie than the Club sandwich.

At D'Angelo's, the medium Italian sub contains 790 calories and costs $10.29. That's 1.3¢ per calorie.

The D'Angelo's Garden Salad with small Pokket (pita bread) but without dressing contains 180 calories and costs 4.6¢ per calorie, about 3.5x more per calorie than the Italian sub.

As with our supermarket example above, eating the Food Plate healthier calories costs more. The oft-recommended 'fruits, vegetables and whole grains, not processed food, fat and sugar' diet is still too expensive.

How much more expensive? According to my supermarket food data above, eating healthier – meaning eating according to the Food Plate – costs about $9.12 more per person per day. That's $3320 per year or, for the US average 2.6-person household, over $8300.

A *single person* would need to earn $33,000 more annually to afford the Food Plate meals above. That's using the US Department of Agriculture's '10% of your income on food' estimate discussed above.

An *average American household* would need to earn $83,000 more.

That's not the cost of eating but the *additional* cost of eating a healthy diet, the one designed to avoid or exit from, metabolic syndrome.

That's a significant economic disincentive to eat healthy foods and a significant economic incentive to stay the course.

Why do healthier foods cost more?

This chapter is not a discussion of food subsidies but the question often arises from astute readers. Here's a very short explanation:

Congress and various states subsidize food production.[102] In 2016, for example, the feds provided $13.9 billion in crop subsidies and insurance payments, equivalent to 25% of farmers income. Those subsidies generally went to the largest and best organized farm groups like huge companies that produce commodities - corn and soybeans for example. About 90 million acres – half our farmland – goes to those types of (heavily subsidized) products.

[102] This analysis comes from Barth, Congress Finally Passed a New Farm Bill, January 7, 2019, Modern Farmer

Food producers, in turn, then use those products in processed foods. That helps explain why corn sugar (a.k.a High Fructose Corn Sugar, HFCS and corn syrup) is included in so many of our processed foods. Just check the ingredients of your favorite jars or cans of food. We'll discuss this more in the section on food tastes, below.

> Subsidized corn sugar helps control the cost of real sugar, thus expanding the market for sweeteners, about 15% of American's typical daily calories.

Meanwhile, only about 10 million acres, or 3% of our cropland, goes to fruits, nuts and vegetables, products not typically included in the farm subsidy programs. They're more expensive for 2 reasons:

- Consumers pay the full price for their production since production costs are not subsidized
- There is no excess supply since their acreage is constrained by market forces, not supplemented by subsidies. Tighter acreage means less supply. The standard economics of price being determined by supply and demand factors then takes over.

We subsidize the foods we're not supposed to eat much of, and fail to subsidize the foods we're supposed to eat in abundance.

But wait, there's more

Let's now discuss some additional, non-cost problems of switching from our typical to a Food Plate diet. The problems fit into 3 groups: hunger, taste, and convenience. How much of a financial incentive would be required to induce people to overcome these problems? That's over and above the $3320 per person food cost difference.

Hunger: as people eat fewer calories, they feel hungry. That's the prime behavioral reason so many diets fail: people want that satisfying full feeling.

> I sometimes hear people claim, 'I lost 25 pounds and never felt hungry.'
>
> I rarely see these dietary results replicated on a large group of people over a long time period, making me dubious. Indeed, studies suggest that the vast majority of dieters regain all their weight within 2 years. I suspect hunger or related food cravings is a primary culprit.
>
> But when people claim to have lost weight without feeling hungry, I often respond 'Why doesn't everyone do that?'. That generally ends the conversation.

I can identify only 2 large groups of people who successfully lose weight by dieting and keep it off for a long time period: actors and athletes. (Apologies if I unintentionally missed a group.) Actors and athletes often / always have body weight requirements included in their employment contracts. That's a tremendous economic incentive, far exceeding anything that employers, insurance companies or the medical establishment can provide to employees or patients.

A word about the long term issue facing of dietary incentives. Good food habits – eating certain foods, losing your taste for others, acclimating yourself to a certain 'appropriate' hunger – takes months if not years to develop. By appropriate' hunger, I mean accustoming yourself to feeling somewhat hungry much of the time and feeling only somewhat full immediately after meals. Most people, according to studies, need at least a few months to develop new food habits; other folks need much longer.[103] I needed a year when I lost 40 pounds in 2021 but that story comes later in this chapter.

How much of an economic incentive does Joe need to switch from his traditional 2650 calories per day to the Food Plate's 2237? Probably less than the $200,000 Matthew McConaughey earned for his 50 pound weight loss in Dallas Buyer's Club but I don't know how much less. Perhaps 3% of Joe's annual income? 5%? While I don't know the exact amount, I'm pretty sure that a calorie-restricted dietary program needs to address this issue.

Taste. Our Food Plate lacks many tastes common to the typical American diet – sugar, salt, salad dressings, mayonnaise, etc. People sometimes complain that healthy foods taste bland. They also sometimes describe food cravings, missing various tastes and sensations.

Food producers know this and have identified the 'bliss point', a combination of sweetness, saltiness and richness (generally some sort of fat) that people find satisfying. The right combination of these sends a jolt of endorphins to your brain causing a pleasure sensation and desire to do it again. That's why people like mayonnaise on sandwiches, salad dressing on their salads and cream and sugar in their coffee. It makes food more satisfying. How often have you heard 'I just couldn't drink black coffee'?

The combination of sweetness, saltiness and richness works better together than any one ingredient on its own. That's why a standard sized Hershey Bar contains 35 milligrams of sodium[104] and a Nestle Crunch Bar 66 milligrams[105] and why Jif peanut butter contains 2 grams of sugar per serving[106] and Barilla pasta 7 grams[107].

---

[103] Grohol, Need to Form a New Habit? Give Yourself At Least 66 Days, PsychCentral, October 7, 2018 https://psychcentral.com/blog/need-to-form-a-new-habit-66-days ; UCL News August 9, 2009 Interview with Phillippa Lally https://www.ucl.ac.uk/news/2009/aug/how-long-does-it-take-form-habit

[104] https://www.hersheyland.com/products/hersheys-milk-chocolate-candy-bar-1-55-oz.html

[105] https://www.heb.com/product-detail/nestle-crunch-candy-bar/98268

[106] https://www.jif.com/peanut-butter/creamy/simply-jif

[107] https://www.heb.com/product-detail/barilla-traditional-sauce/1637428

Fruits and vegetables lack the bliss point. There's infinitesimal salt in an apple or yellow pepper, infinitesimal sugar in spinach or kale. And no fat.

The good news is that people can adjust their tastes to become satisfied with non-bliss point foods. The bad news is that it takes time to develop the habit, likely that same as to adjust to the new 'slightly hungry' or 'no longer totally full' eating feeling. Again, programs aiming to help people eat fewer-but-healthier calories need to maintain their incentives for this lengthy time period.

Convenience. Joe's typical meals included a store baked honey bran muffin as opposed to the Food Plate home cooked eggs and toast. His ham-and-cheese sandwich lunch with a bag of chips and Oreos was quicker to make than the Food Plate made-from-scratch spinach salad with chicken breast. Not only quicker to make, but also quicker and easier to eat.

And his industrially produced dinner Prego pasta sauce with canned peaches and ice cream for dessert was easier to prepare than the Food Plate home-made rice bowl.

Accessing these convenient foods is easy and relatively stress free – just open the can or package. Meanwhile, shopping for, cutting and preparing the less-convenient-but-healthier Food Plate meals is more difficult and time consuming, and therefore more stressful in our time compressed daily lives.

As one indication of convenience importance in our daily food decisions, consider the number of take-out food options now available. (I'm not sure if take-out counts as eating at home or out, but it doesn't much matter what we call it as long as people stay within their '10% of salary on food' parameter.) We had, for example, 71,856 pizza restaurants in 2012 but 78,092 in 2020.[108] That's almost a 9% increase in 8 years, not including other competitive take out options. All this suggests that increasing numbers of us order out to eat in, the definition of convenience.

How much should designers of wellness or diet programs incentivize people to eat more labor intensive / healthier foods as opposed to more convenient-but-less healthy? I don't know – sorry, not a program designer – but food convenience is one factor that such programs need to address. 'Address' here means 'provide economic incentives to do'.

Summary of the diet part of 'diet and exercise'

We have established so far that eating fewer-but-healthier calories costs more than eating more-but-unhealthier ones. The cost difference is about $9.12 per person per day or $3320 per year. Those are, of course, just estimates – take them with a grain of salt. (Bad pun.)

[108] Number of pizza restaurants in the US, Statistics https://www.statista.com/statistics/377597/number-of-pizza-restaurants-us/

We have also discussed

- how eating fewer calories makes people feel hungry
- how eating non-bliss point foods diminishes taste satisfaction, and
- how consuming less convenient foods is more difficult and time consuming.

Overcoming those behavioral obstacles requires additional financial incentives for the 6-to-8 months – or more – necessary for the new dietary habits to get formed.

Remember our discussion so far: we want to help people avoid prediabetes, metabolic syndrome and diabetes. We have explored the 'diet' part of that standard 'diet and exercise' recommendation. We learned that eating healthier foods is more expensive, less tasty, less convenient and less comfortable. The dietary goal is, therefore, difficult to achieve.

> Tons of real world evidence shows this, including increasing rates of obesity and diabetes in the past 20 years.

Let's switch focus and turn to the exercise side now, to see if that holds more promise for success.

Exercise

The April – May 2004 issue of Harvard Magazine summarized some then-current research at Harvard University and Medical School as follows (lightly edited for context):

> [Researchers are developing] a pill, a marvel of modern medicine that will regulate gene transcription throughout your body, helping prevent heart disease, stroke, diabetes, obesity, and 12 kinds of cancer—plus gallstones and diverticulitis.
>
> Expect the pill to improve your strength and balance as well as your blood lipid profile. Your bones will become stronger. You'll grow new capillaries in your heart, your skeletal muscles, and your brain, improving blood flow and the delivery of oxygen and nutrients.
>
> Your attention span will increase. If you have arthritis, your symptoms will improve.
>
> The pill will help you regulate your appetite, and you'll probably find you prefer healthier foods. You'll feel better, younger even, and you will test younger according to a variety of physiologic measures.
>
> Your blood volume will increase, and you'll burn fats better. Even your immune system will be stimulated.[109]

[109] The Deadliest Sin, Harvard Magazine, April – May 2004

There is just one catch. There's no such pill.

The prescription instead is exercise.

Everyone knows that exercise is good for you. The Harvard quote makes the point poignantly. But touting the overall benefits of exercise is not our aim here. Instead, our focus is diabetes prevention and, more specifically, the impact of exercise on people with prediabetes or metabolic syndrome. How does exercise impact these groups?

Several papers address this, mainly metabolic syndrome patients. I'll quote 3 below.

One study by the Norwegian University of Science and Technology Faculty of Medicine in 2008 found that 36% of patients with metabolic syndrome reversed the condition with 4 months of exercise.[110] "The study shows that shows that exercise in general, but especially interval training, is able to partially or completely reverse metabolic syndrome," according to lead author Arnt Erik Tjønna.

Second, a 2017 meta-review of 16 studies was, according to the authors, the "first to compare the effects of aerobic, and combined aerobic and resistance, exercise on clinical outcome measures in people with metabolic syndrome".[111]

The authors concluded that

- BMI was significantly reduced in exercise versus control groups.
- Fasting blood glucose was significantly reduced in exercise compared to control groups.
- Triglycerides were significantly improved, and LDL cholesterol was significantly improved in exercise versus control participants.
- HDL cholesterol was unchanged in exercise versus control participants.

Third, a 2019 metastudy, published in Nutrients suggested that "physical activity as a treatment for metabolic disease remains underutilized." [112] Among their findings

> In one component study "exercise training resulted in marked improvements in the metabolic profile of the participants, including triglycerides, HDL cholesterol, blood pressure, fasting plasma glucose, and waist circumference. Of the 105 participants with the metabolic syndrome at baseline, 30.5% (32 participants) were no longer classified as having the metabolic syndrome after training."
>
> A different component study found "strong support the use of aerobic exercise for patients with the metabolic syndrome who have not yet developed diabetes."

---

[110] https://norwegianscitechnews.com/2016/08/exercise-to-combat-metabolic-syndrome/

[111] Ostman et al, The effect of exercise training on clinical outcomes in patients with the metabolic syndrome: a systematic review and meta-analysis, Cardiovascular Diabetology, 2017

[112] Myers et al, Physical Activity, Cardiorespiratory Fitness, and the Metabolic Syndrome, Nutrients, July 19, 2019

> A third component study totaling 77,000 patient hours of exercise for folks with metabolic syndrome found “In analyses comparing aerobic exercise training versus control groups, there were reductions in BMI, waist circumference, systolic blood pressure and diastolic blood pressure, fasting blood glucose, triglycerides and low-density lipoprotein.”

The authors concluded that “achieving the minimal physical activity guidelines (at least 150 minutes per week of moderate-intensity activity or 75 minutes per week of vigorous intensity activity) has been consistently demonstrated to have significant benefits on metabolic risk” and “Among subjects who meet the criteria for the metabolic syndrome, health outcomes are significantly improved by aerobic or resistance training, or their combination.”

Terrific benefits to people suffering from metabolic syndrome. Unfortunately, Americans don’t exercise much or enough.

The CDC recommends that adults get 2.5 to 5 hours of moderate cardio exercise per week and 30 minutes of muscle strengthening exercise. Only 23% of us meet these targets, skewed toward higher income folks.[113] Lower income folks, those most likely to find switching to the Food Plate diet more economically difficult, tend to exercise the least.

How much might it cost to incentivize people to exercise? An old economic rule-of-thumb suggests that people value their free time at 1/3 the amount they normally earn. Our hero Joe, earning the US male average of $1,144 / week, gets $28.60/hour and would therefore values his free time at $9.44/hour. He would, according to this economic theory, exercise in his free time if someone paid him $9.44 / hour or more.

Joe probably should exercise about 4 hours / week – that’s conservative, the mid-point of the CDC’s weekly recommendation. I exercised about 7 hours / week during my own weight loss period, mainly brisk walking, but again, that discussion comes later in this chapter. Joe’s 4 hours / week would cost $37.76, or $1964 in annual incentives. I don’t know who pays this – an employer, insurance company, hospital, TPA or other. At this point, I only want to suggest what the incentive would be. I focus here on why we fail to prevent diabetes and invite others to figure out the rest.

The Context of our Failure to Treat Metabolic Syndrome and Prevent Diabetes

Two socio-medical factors underly our failure to treat patients suffering from metabolic syndrome and to prevent diabetes. I’ll briefly address each in turn.

[113] Only 23% of adults meet guidelines, Time Magazine, Ducharme, June 28, 2018.

Television. Americans watch, on average, about 3 hours of TV each day.[114] The states in which people watched the most TV correlate closely with states having the highest percent of obese people – West Virginia, Alabama, Arkansas and Mississippi. Obesity often leads to diabetes. We begin to see the television link

"The best single behavioral predictor of obesity in children and adults is the amount of television viewing," according to Harvard School of Public Health's Professor Steven Gortmaker.[115] "The relationship is nearly as strong as what you see between smoking and lung cancer." Wow.

Unpack this:

> TV watching is non-weight bearing, non-aerobic, entirely sedentary activity that generates no metabolic system benefit or weight loss.
>
> TV watching exposes viewers to (generally less healthy) food products. That advertising leads to sales, otherwise companies wouldn't continue. Products advertised rarely include the fruits and vegetables that are supposed to account for half our food plate.
>
> > The average American child sees over 40,000 TV commercials per year according to estimates by the American Psychological Association.[116] That's a lot of low-quality food message reinforcement!
>
> TV watching, according to anecdotal evidence, is associated with munching less healthy foods. People report eating salty snacks, buttery popcorn, sugary baked goods and similar while watching TV; fewer (none?) report over-indulging in broccoli or kale.

The take-away about television watching: if you want to create an obese, diabetic population, get them to watch a lot of TV. Our bountiful viewing options including streaming services, seem ideally suited to this task.

---

[114] Hubbard, Outside of Sleeping, Americans Spend Most of Their Time Watching TV, US News, July 22, 2021. Also Statistica, Average Daily Time Spent Watching TV, https://www.statista.com/statistics/186833/average-television-use-per-person-in-the-us-since-2002/#:~:text=Estimates%20suggest%20that%20in%202022,hours%20watching%20TV%20each%20day .

[115] The Way We Eat Now, Craig Lambert, Harvard Magazine, May-June 2004

[116] Protecting Children From Advertising, American Psychological Association, June 2004 https://www.apa.org/monitor/jun04/protecting#:~:text=The%20average%20child%20is%20exposed,a%20year%2C%20according%20to%20studies.

Cholesterol treatments. Our typical diet, referenced in the meal case study above, leads to high blood cholesterol, with statin prescriptions a primary treatment. About 1/3 of American adults currently take a statin.[117]

Statins, it turns out, may *increase* your risk of developing type 2 diabetes.

Statins prevent the buildup of fatty deposits in blood vessels and reduce the inflammation that occurs when arteries are blocked. This lessens your risk of having a heart attack, but it may also make cells more resistant to insulin, the hormone that helps regulate glucose levels in blood. The net effect according to various studies:[118]

- Statins increase your risk of developing diabetes by about 9% on average, but
- The higher the statin dose, the higher the diabetes risk, and
- The higher your blood sugar levels when you start taking the statin, the more likely you are to develop diabetes.

That means sicker people, taking higher statin doses, are more likely to develop diabetes, exactly the people most at risk.

One study found that, on average again, 1 in every 255 people who take a statin for 4 years will develop diabetes[119] but older patients especially those suffering from multiple health problems are at higher risk that younger, healthier people.[120]

Note the caveat here: though changes in blood sugar caused by statins are 'pretty modest' according to Dr. Jill Crandall, an endocrinologist at the Albert Einstein College of Medicine in New York, they may be enough to tip someone from prediabetes to full blown diabetes.[121]

Let's tie all this together:

- Diabetes and related medical costs account for up to 25% of all healthcare spending, with diabetes rates rising
- About 90% of diabetes is type 2, caused by lifestyle behavior
- The standard 'lose weight and exercise to avoid diabetes' prescription is both unaffordable and unpalatable to most of us; diets generally fail within 2 years
- The economic incentives required to keep people on their diet and exercise programs are unaffordable to employers, insurance carriers or similar

---

[117] The 1/3 estimate is extrapolated from the trend. https://consumer.healthday.com/general-health-information-16/misc-drugs-news-218/number-of-americans-taking-statins-keeps-rising-cdc-694895.html or https://www.ahrq.gov/data/infographics/statin-use.html

[118] This analysis comes from Madhusoodanan, NY Times, October 25, 2022 Ask Well 'Do statins increase the risk of type 2 diabetes?'

[119] Sattar, Statins and risk of incident diabetes, https://www.ncbi.nlm.nih.gov/books/NBK78906/

[120] Madhursodanan, op cit

[121] Ibid.

- One common behavioral response to our high stress lifestyles – TV watching – may exacerbate the diabetes problem
- Medical treatments for other behaviorally related health problems, i.e. statins to lower cholesterol, may also exacerbate the diabetes problem.

Is there a medical solution?

Semaglutide

Semaglutide developed by Novo Nordisk, apparently treats obesity and diabetes quite well.

In one large random controlled study, for example, patients taking 2.4 milligrams of semaglutide lost an average of 6% of their body weight by week 12 and 12% of their body weight by week 28. That's impressive.

Other studies have suggested similar successes.[122]

In February 2022, the British National Institute for Clinical Excellence (NICE), the UK's medical rationing agency, approved Wegovy, Novo Nordisk's brand name for semaglutide to treat obesity. In the vernacular, NICE approval means the drug works; it has a higher approval bar than the US Food and Drug Administration.

> Eli Lilly has developed a competitor weight loss drug called tirzepatide, not yet approved as of time of writing. I assume other companies have already, or will, similarly design competition to semaglutide.

NICE's stringent use guidelines for semaglutide illustrate some underlying issues with the drug.[123]

- It is approved for people with at least 1 weight related medical issue and a BMI of 35 or more, or, only exceptionally, for people with a BMI between 30 – 34.9
- It can only be prescribed as part of a specialist weight management program including supervised weight loss coaching. This has implications for the US where only 1% of physicians are trained in obesity medicine.[124]
- Semaglutide can be prescribed for 2 years, maximum.

Novo Nordisk also sells semaglutide it for diabetes treatment under the brand named Ozempic.

But the pricing:

---

[122] Weghuber et al, One-Weekly Semaglutide in Adolescents with Obesity, NEJM, Nov 2, 2022

[123] Much of this discussion comes from 'NICE approves Wegovy for obesity', European Pharmaceutical Review, February 10, 2022 https://www.europeanpharmaceuticalreview.com/news/168431/nice-approves-wegovy-semaglutide-for-obesity/

[124] Kolata, The Doctor Prescribed and Obesity Drug; the insurance company called it vanity, NY Times, May 31, 2022. Much of the following discussion comes from this source.

- Ozempic, semaglutide for diabetes, lists for $894 for 4 weeks in the US. Insurance companies normally cover it for diagnosed diabetics.
- Wegovy, semaglutide for weight loss, lists for about $1,350 per month. Insurance companies normally don't cover it, at least not without a fight.
- Saxenda, basically Wegovy lite also by Novo Nordisk, also lists for $1,350 per month. Ditto on the insurance coverage front.

This creates confusing incentives. In the US, having a high BMI does not necessarily quality a patient for Wegovy or Saxenda as in the UK. American doctors must wait until their patient becomes diabetic. Patients 'only' suffering from obesity and metabolic syndrome don't have access so must settle for less robust, older medications, often with unpleasant side effects. As the New York Times reported, one doctor 'finds herself rejoicing when patients have high blood sugar levels'[125], i.e., becomes diabetic and therefore eligible for treatment.

We don't yet know the long term effects of semiglutide because the it's too new:

- Does a patient who loses 12% of their body weight in 7 months then keep it off?
- What happens when, in the UK situation, semaglutide's prescription runs its full 2-year course: does the patient regain the weight or not?
- Is 2 years long enough for the patient to develop good eating habits?
- Can the patient afford to stay on the healthier diet?
- What is the medical cost difference between staying on Wegovy for life and returning to obesity and diabetes?

We also can't yet answer the most important economic question: how do semaglutide treatment costs compare with medical treatment costs over time? We can only, today, guess at the answer.

Semaglutide and, perhaps, Novo Nordisk's competitor's drugs, may be the light at the end of the obesity-to-metabolic syndrome-to-diabetes tunnel. Or they may be the proverbial headlight of an oncoming train. I certainly don't know which, but the future looks murky to me. At best.

Case study
My own experience with metabolic syndrome

My doctor diagnosed me with metabolic syndrome in August 2020 based on various numbers from my annual physical.

> A quick word on numbers and annual physicals. I consider these equivalent to a half-semester report card in high school, a rough indication of your academic health and direction. You might be a good student having a bad semester for some ephemeral reason. You might have a serious intellectual disease. Or you

[125] Ibid.

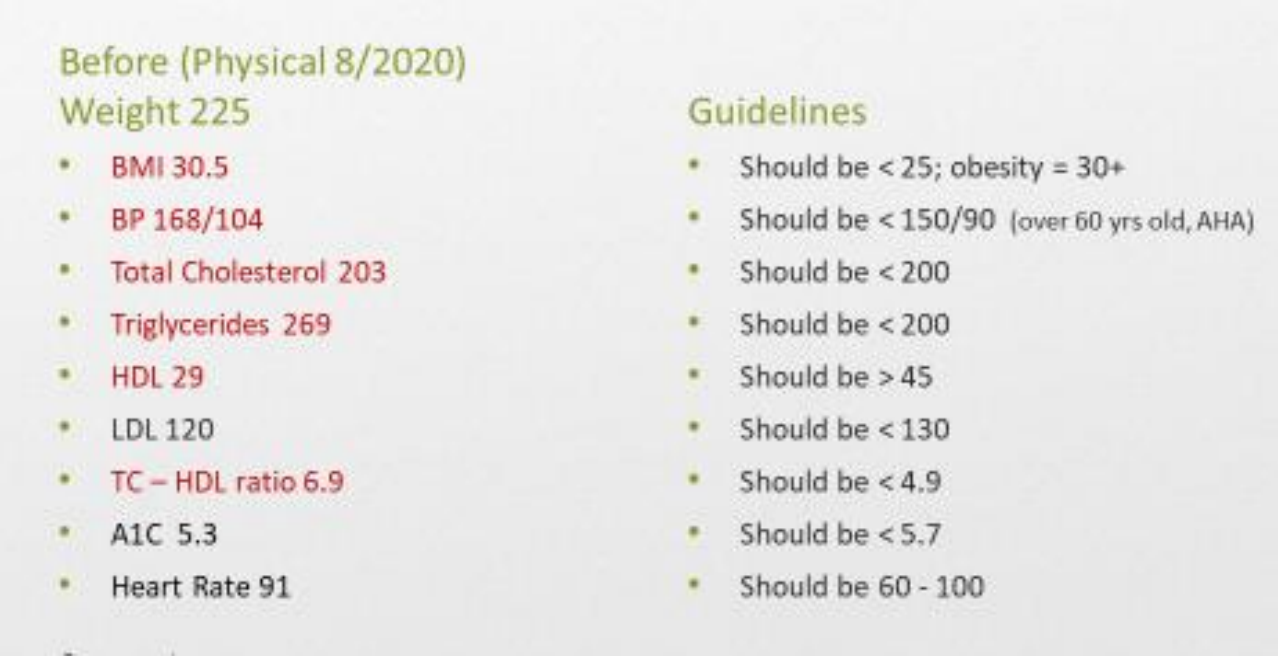
might be going in a bad academic direction, through lack of effort for example. Your half semester report card doesn't tell which.

A series of report cards over time might though. Consider a student with an A average in 8th grade, an A- average in 9th grade, a B average in 10th grade and a C- average on the first half semester report card in 11th grade. We see a trend. The report card suggests need for an intervention by the school, parents, community, or others to identify and address some issue or other.

Similarly, my 2020 annual physical numbers suggested an issue. What is was – lifestyle, individual biology or something else – remained to be determined.

Add to that my own idiosyncratic personality: I don't like to receive failing grades. I found myself annoyed more than concerned and determined to do something about it. I self diagnosed – always a bad idea – my problem as lifestyle and decided to lose weight, exercise more and see what happened.

My August 2020 numbers compared to the metabolic syndrome guidelines:

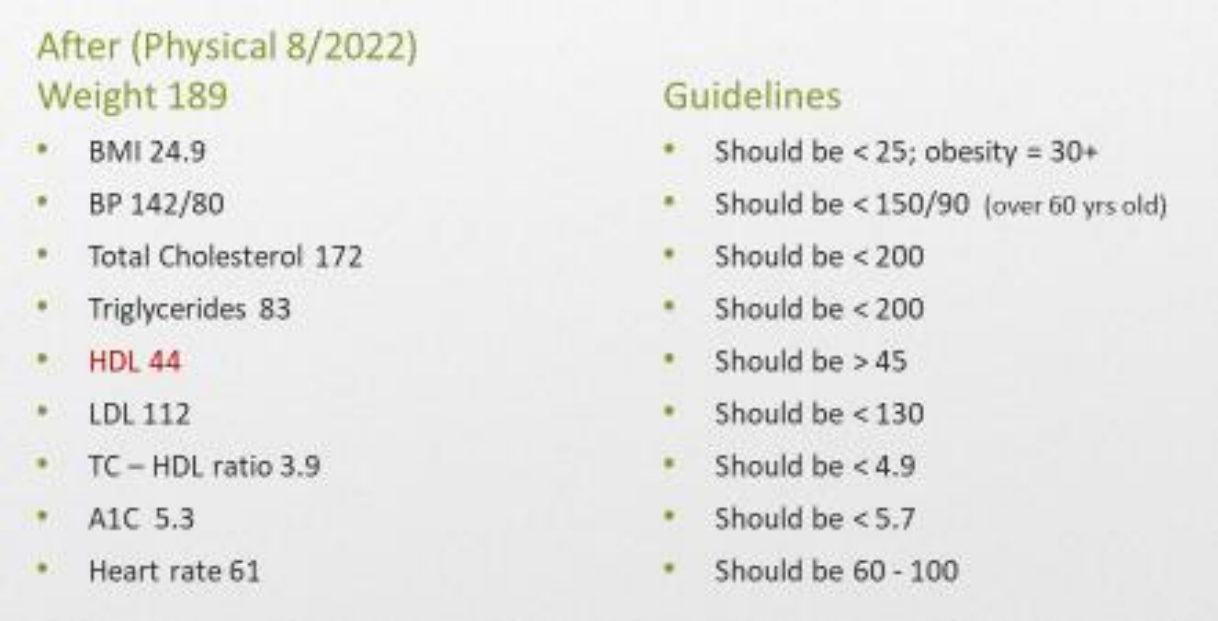


I put myself on diet-and-exercise program and lost about 40 pounds in a year. See the addendum to this chapter for details.

But the big question facing me: would the healthy habits, developed over a year, maintain themselves and keep me at a healthy weight at the 2 year anniversary? I know the 2 year failure rate of weight loss programs, well over 80% with some estimates as high as 97%.

Also, what would that metabolic profile look like 2 years later?

Here are the results from my August 2022 physical:



And here's the side-by-side comparison of all those numbers two years apart to show the remarkable impact of weight loss and exercise increase in one relatively easy-to-read chart.

Diet and exercise worked well to get me out of the metabolic syndrome.

It's a shame that cost, convenience, and other factors keep so many others from enjoying this success and the related good health / low healthcare costs.

Chapter summary

Diabetes accounts for up to 25% of all healthcare spending. Its incidence grows over time, along with the underlying causes: obesity, low quality caloric food consumption and insufficient exercise afflict many of us, perhaps a majority of Americans, perhaps a large majority.

Many afflicted folks progress through metabolic syndrome and / or prediabetes to full blown diabetes. Efforts to intervene behaviorally - typically referred to as lifestyle changes involving dietary improvements and exercise increases - generally fail, by some estimates up to 97% of the time.[126] They're

- Too expensive for average income Americans
- Too uncomfortable to maintain for years
- Too inconvenient
- Too dissonant with our normal lifestyles, TV watching for example.

New, promising medications are too expensive for widespread use, with 'widespread' meaning the 70 million currently obese Americans. Insurance companies balk at the cost.

I don't see a hopeful path forward. Instead, I see our diabetic population growing along with the associated healthcare costs.

A pessimistic end to a pessimistic chapter.

My calorie and cost spreadsheets

All data from Shaw's, Easton Massachusetts, October 2022. I made several trips to gather data.

In case you have trouble reading the spreadsheets below, the column headings are

- Item name
- Cost / package. The store publishes this.
- Servings / package. This is on the nutritional label of all packaged foods, or you can google it for fruits and vegetables.
- Calories / serving. Again, on the nutritional label. Google provides this information about other foods - calories / pound of apples for example, or calories in a medium apple.
- Cost / calorie. This is a simple division: cost / package divided by number of servings / package divided by number of calories / serving.
- # servings per meal. That's how much you put on your plate. You may choose 2 servings of spinach for example, or ½ serving of ice cream.
- Total calories = Again a simple calculation: the number of calories / serving times the number of servings on your plate.

[126] The Weight of the Evidence, Harriet Brown, Slate, March 24, 2015 https://slate.com/technology/2015/03/diets-do-not-work-the-thin-evidence-that-losing-weight-makes-you-healthier.html.

- Total cost = the cost / calorie for each food times the number of calories on your plate.

Item	Cost / package ($)	Servings / package	Calories / serving	Cost / calorie	# servings	Total # calories	Total cost ($)
Healthy breakfast							
2 jumbo eggs - range free	7.99	12	90	0.007398148	2	180	$ 1.33
2 pieces Arnold Multigrain toast	5.29	16	110	0.003005682	2	220	$ 0.66
Butter (Land o Lakes)	4.79	30	50	0.003193333	1	50	$ 0.16
1 banana	0.69	3	100	0.0023	1	100	$ 0.23
Black coffee	19.99	100	2	0.09995	1	2	$ 0.20
Total						552	$ 2.58
Healthy lunch							
Spinach salad	5.99	3.5	20	0.085571429	1	20	$ 1.71
Tomato	2.99	1	90	0.033222222	0.5	45	$ 1.50
Carrot	3.49	11	30	0.010575758	0.5	15	$ 0.16
Yellow Pepper	1.7	1	50	0.034	0.5	25	$ 0.85
Beets	3.99	2.5	50	0.03192	0.5	25	$ 0.80
Olive oil - Bertolli	7.49	33	120	0.001891414	0.67	80.4	$ 0.15
Balsamic vinegar - Filippo Berio	6.99	33	11	0.019256198	0.33	3.63	$ 0.07
.3 lb of chicken breast	3.99	1	748	0.005334225	0.3	224.4	$ 1.20
1 pita	2.99	8	90	0.004152778	1	90	$ 0.37
Apple	1.99	3	95	0.006982456	1	95	$ 0.66
Total						623.43	$ 7.47
Healthy dinner (Rice Bowl)							
2 cups brown rice	20.99	111	170	0.001112348	2	340	$ 0.38
Broccoli	1.99	1	154	0.012922078	0.33	50.82	$ 0.66
Summer squash	1.99	1	74	0.026891892	0.33	24.42	$ 0.66
Snap peas	2.99	3	35	0.02847619	1	35	$ 1.00
Green beans	3.29	4	25	0.0329	1	25	$ 0.82
Salmon	11.99	1	944	0.012701271	0.4	377.6	$ 4.80
Low salt soy sauce	3.29	20	20	0.008225	1	20	$ 0.16
Blueberries	2	1	229	0.008733624	0.5	114.5	$ 1.00
Strawberries	4.99	1	149	0.033489933	0.5	74.5	$ 2.50
Total						1061.84	$ 11.97
Total Daily Calories & Cost						**2237.27**	**$ 22.02**

Item	Cost / package ($)	Servings / package	Calories / serving	Cost / calorie	# servings	Total # calories	Total cost ($)
Typical breakfast							
Honey bran muffin (Shaw's)	$5.00	4	420	0.00297619	1	420	$ 1.25
Coffee	19.99	100	2	0.09995	1	2	$ 0.20
Cream (Coffeemate)	4.49	63	35	0.002036281	1	35	$ 0.07
Sugar (Domino's granular)	1.99	54	30	0.001228395	1	30	$ 0.04
Total						487	$ 1.56
Typical lunch							
Ham	7.99	1	885	0.009028249	0.25	221.25	$ 2.00
Cheese (20 slices / lb)	5.99	20	100	0.002995	1	100	$ 0.30
Sub roll	2.99	6	200	0.002491667	1	200	$ 0.50
Mustard (French's)	2.49	79	1	0.031518987	1	1	$ 0.03
Lettuce - ice berg	2.49	1	105	0.023714286	0.15	15.75	$ 0.37
Bag of chips	21.99	42	150	0.003490476	1	150	$ 0.52
3 Oreos	5.49	21	160	0.001633929	1	160	$ 0.26
Apple	1.99	3	95	0.006982456	1	95	$ 0.66
Coca cola	2.79	12	140	0.001660714	1	140	$ 0.23
Total						1083	$ 4.88
Typical dinner							
Regular pasta (Barilla)	2.99	8	200	0.00186875	1	200	$ 0.37
Pasta sauce (Prego traditional)	3.99	5	70	0.0114	1	70	$ 0.80
Ground beef - 80%	4.99	1	1152	0.004331597	0.25	288	$ 1.25
Grated cheese (Kraft parm)	5.99	45	20	0.006655556	1	20	$ 0.13
Green salad - Dole American	3	4	15	0.05	2	30	$ 1.50
Italian dressing (Ken's house)	3.99	16	120	0.002078125	1	120	$ 0.25
Canned peaches	3.49	7	100	0.004985714	1	100	$ 0.50
Ice cream (Friendly's)	4.99	9	210	0.002640212	0.5	105	$ 0.28
Beer (Bud) Walmart	8.27	6	145	0.009505747	1	145	$ 1.38
Total						1078	$ 6.46
Total Daily Calories & Cost						2648	$ 12.90

****

Addendum: My battle with metabolic syndrome

A version of this is available from www.lulu.com as Gary's Guide to Weight Loss.

Foreword
Dr. David Mudd

Gary asked me to write a forward to his book while we were kayaking together. I told him I would be honored to do so.

I have worked for 30 years as a primary care physician in a mixed urban / suburban environment. Over these years obesity rates have skyrocketed. I have seen it in my own practice: young and old patients, blue and white collar, it doesn't matter. Far too many of my patients are heavier these days causing other health conditions to become more prevalent including diabetes, hypertension and heart disease.

I have had countless people come to me complaining of their inability to lose weight. The complaints are the same and the accounts of their food intake and exercise eerily similar. "I hardly eat anything" or "I eat the same amount I always have." Lacking hard data, I wonder about this.

When I ask about their activity level, they usually respond “I try to walk.”

They typically want to have their thyroid checked, assuming that there is a medical explanation for their weight gain and fatigue.

My message to them is always the same: “you need to cut back on your calories and become more active”. Unfortunately, we never have enough time together for me to understand their lifestyles, dietary norms and physical activity habits in enough detail. Invariably they return frustrated and unsuccessful.

Fewer than 1/10 patients actually make the changes necessary to lose weight and keep it off.

Patients such is Gary Fradin are few and far between but a joy to work with. Gary is the rare patient who understands nutrition and exercise and actively takes control of his own health. He formulated a plan to cut his calories and increase his activity level and enjoyed spectacular results, losing over 40 pounds and getting himself into good physical shape as well.

Gary summarized the process in this readable and informative book. His recommendations are science based, useful and appropriate. I heartily recommend it.

In fact, I plan to give this book to my own patients. Enjoy it and good luck!

Dr. David Mudd
Easton, Massachusetts
May, 2021

Preface

After Covid struck, after our lives turned upside down, after my business revenues fell by 50%, after all normal routines disappeared, my doctor told me I had metabolic syndrome and to lose weight.

I told him I was fit and healthy.

He repeated his order.

How to lose weight? Diet options ranged from A (Atkins) to Z (Zone). All claimed dramatic successes.

But all almost certainly fail over time. Research suggests that 97% of people regain their weight within about 3 years.[127] Here, for example, is Traci Mann from UCLA summarizing her group's study:

> "You can initially lose 5 to 10 percent of your weight on any number of diets, but then the weight comes back. We found that the majority of people regained all the weight, plus more."[128]

I didn't want to be one of the failures.

My doctor offered a nutritionist referral, which I postponed; I didn't like the odds, hate scheduling medical appointments and feared entering the modern diet culture even under the guise of organized medicine.

Instead, I decided to try on my own. I figured I could achieve at least the same dismal long- term weight loss result myself, and possibly do even better.

This chapter describes how.

The program isn't a unique, novel or brilliant but it's straightforward, practical and honest. You can easily adapt it to your own situation.

Just follow the steps, modify it to your own needs and give yourself time.

The Camera Adds 20 Pounds
Me, fit-and-healthy pre-weight loss

[127] The Weight of the Evidence, Harriet Brown, Slate, March 24, 2015 https://slate.com/technology/2015/03/diets-do-not-work-the-thin-evidence-that-losing-weight-makes-you-healthier.html.

[128] Dieting Does Not Work, Stuart Wolpert, UCLA Newsroom, April 3, 2007 https://newsroom.ucla.edu/releases/Dieting-Does-Not-Work-UCLA-Researchers-7832

Introduction

I’m not a doctor, nutritionist, dietician or exercise physiologist. I have no medical training.

Instead, I’m an economist. I measure things. Weight loss strikes me as a measurement problem:

- If you eat more calories than you burn, you gain weight.
- If you eat fewer calories than you burn, you lose weight.
- As you eat less, your metabolism slows so you need to exercise more.

Sustained, long term weight loss also incorporates a fourth, behavioral consideration:

- Do this all slowly enough to develop new habits. That increases your chance of long-term success.

This program incorporates all those issues.

As background, I’m a 68-year-old, 72-inch-tall man. I weighed 225 pounds in my doctor’s office on August 13, 2020.

I followed this program for 9 months and weighed 185 at my Sunday morning weigh-in April 4, 2021. I had lost 40 pounds over 36 weeks, about a pound per week on average.

It wasn't very difficult – more a task to accomplish than a mountain to climb - but I was hungry much of the time, especially at the beginning. That feeling dissipated as my new eating habits became ingrained and my body adjusted to its new setpoint. Dissipated but didn't disappear.

I'm optimistic about long-term success, optimistic that my habits have changed enough to maintain my new weight for years to come. Cautiously optimistic that is, not blindly. After all, 97% of people who lose weight ultimately put that weight back on.

We'll see. The future is a long time.

Step 1: Calculate your daily calorie needs.

There's a weight loss mantra 'eat 500 calories less each day and lose a pound a week'.

Maybe true – I don't know - but I needed a starting point. 500 calories less ***than what***? No idea. I hadn't tracked my previous consumption.

I initially tried cutting cream from my morning coffee and dessert from lunch and dinner. But I didn't use the same amount of cream every day. Nor did I eat dessert every day but when I did, the type and size varied. Did that cut 500 calories? No idea.

I tried eating smaller portions. Small enough? Too small? Again, no idea. I only knew that I felt hungry. I worried that if I felt hungry without seeing results, I'd get frustrated and stop.

I needed a plan.

So instead of eating 500 calories *less* than some unknown number, I decided to calculate how many calories I *should* eat each day to lose a pound a week, an absolute number.

I googled 'calories per day to lose weight' and found lots of websites that base their estimates on age, height, weight, gender and daily activity level. Most suggested roughly the same amount – 2300 calories per day to lose a pound a week from that 225 pound starting point. (Your own amount will vary.)

The agreement among websites gave me a reasonable degree of confidence.

I aimed for 2200 calories per day, slightly below the 2300 estimate to allow for measurement errors.

Interestingly, 2200 calories per day isn't a starvation diet. Far from it. In fact, the US Department of Agriculture estimates that the average American consumed 2234

calories per day in 1970.[129] My 2200 calorie target simply mimicked America's pre-obesity food consumption level.

Three thoughts on eating according to your daily calorie estimates and watching the impact on your weight:

1. Remember to recalculate as you lose weight. Your calorie needs drop.
2. Set reasonable weight loss goals – neither too fast nor too much – to avoid frustration.
3. Weigh yourself on the same scale, at the same time, every week. This generates the most consistent data, necessary to keep you on track. I choose Sunday mornings, first thing. Those are the weights I show in the **Results and Lessons** chapter.

I started thinking 'if I can get down to 215, I'll be successful'. Then, upon reaching 215, I wondered about losing another 5 pounds. Then I aimed for 200, a nice round number. Then 195, a 30-pound loss and enough to write a book. Maybe others could benefit from this program?

But losing 40 pounds sounded better than 30, so I aimed for 185 and made it. Low enough! My doc said to stop here.

Remember that my initial goal wasn't 185. It was 215. Try to define success for yourself as a goal you can reasonably reach in a relatively short period, something that will make you feel proud. Then let the future take care of itself as you gain confidence through success.

Step 2: Divide your daily calorie target into 3 meals and a snack.

I used this rule-of-thumb for my initial 2200 calorie per day program.

Breakfast - 400 calories (18% of total daily calories)

Lunch - 600 calories (27%)

Dinner - 800 calories (36%)

Snacks or dessert - 400 calories. You can add these to your breakfast, lunch or dinner.

Your own calorie target and meal amounts may differ.

[129] Wells and Buzby, US Food Consumption Up 16% Since 1970, Economic Research Service US Department of Agriculture, November 1, 2005 https://www.ers.usda.gov/amber-waves/2005/november/us-food-consumption-up-16-percent-since-1970/

You'll find calorie estimates for specific foods on packages or online. Simply google 'calories in a medium potato' or 'calories in a cup of blueberries' or whatever. It's easy and close enough for our purposes.

Meal timing: I ate according to the clock throughout this program and expect to in the future:

- Breakfast at 9:00
- Lunch at 1:30
- Dinner at 6:30. Regular as clockwork.

Try not to eat whenever you feel hungry because those feelings come and go. Stick to the clock. It's honest, reliable and will keep you on track.

See the discussion of hunger below, for more on this.

Food choices: I learned several things through trial and error about my own reaction to food groups. You probably will too, though perhaps different lessons.

First, I feel fuller, longer eating vegetables probably because of their high fiber and water contents. I eat lots of vegetables these days.

Second, I prefer healthy food tastes. I look forward today to my English muffin, peanut butter and banana breakfast as enthusiastically as I had previously anticipated pancakes with syrup or eggs with bacon, sausage and toast.

In fact, I no longer want those overly-sweet, overly-salty, overly-filling, low-fiber meals, not because they're so high in in calories but because they make me feel lousy afterward. They sit like a rock in my stomach and leave me stuffed and thirsty, then surprisingly hungry relatively quickly.

Third, I don't miss those previously routine, calorie-rich tastes, things like cream in my morning coffee, cheese and crackers between meals or rich desserts after dinner. I now prefer blueberries, raspberries or strawberries for dessert, sometimes with a drop of honey on top. Berries are sweet and delicious, and I feel good after eating them.

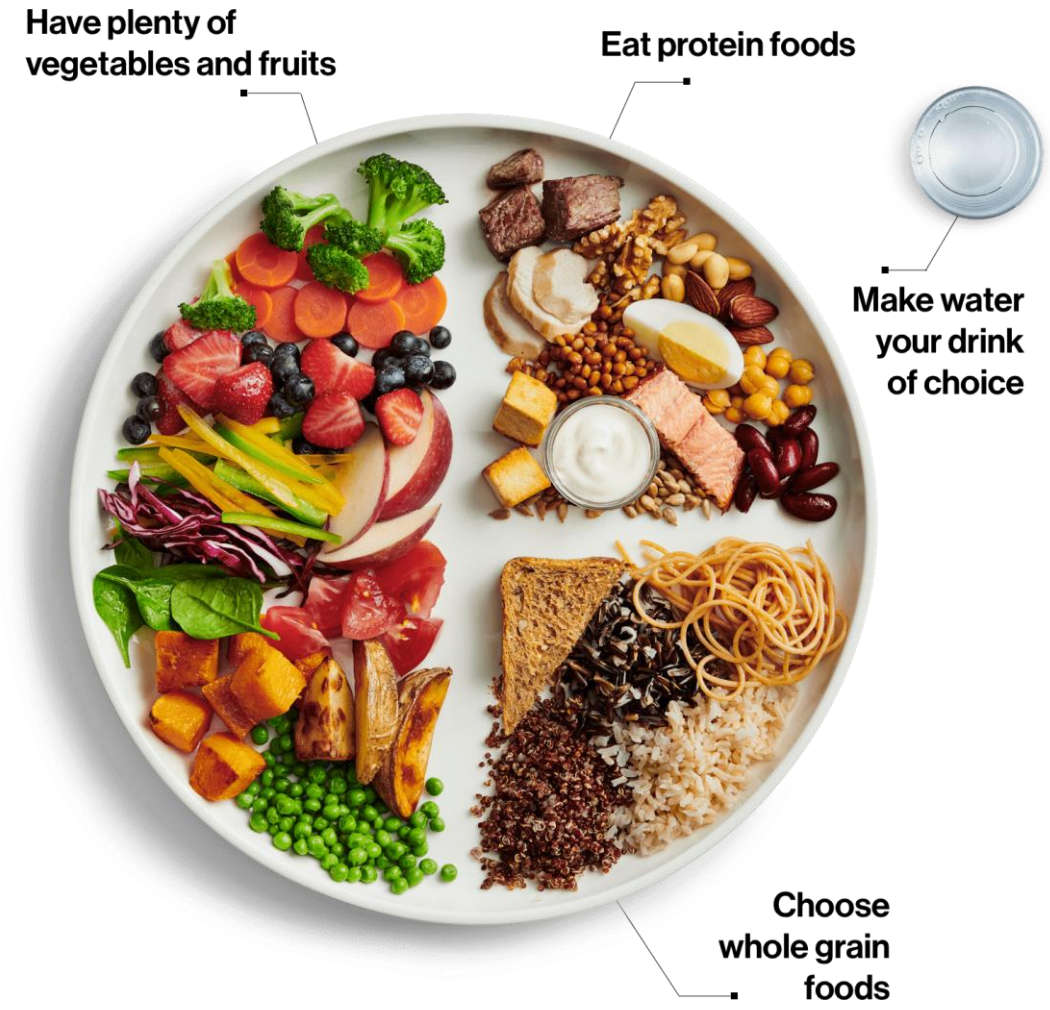
Plus I don't have that sugary thirst like I used to after eating cookies or cake.

My experiences mirror recommendations from 2 thoughtful sources. Michael Pollan, New York Times contributor, best-selling author, and Berkeley professor famously advises people to "Eat food. Not too much. Mostly plants." Consider each phrase.

- **"Eat food"** means eat real, identifiable farm products like fruits, vegetables, whole grains, meat and fish. Avoid ingredients you can't pronounce and foods your grandmother wouldn't recognize.
- **"Not too much"** means stick to your daily calorie limit.
- **"Mostly plants"** means lots of fruit and vegetables.

The Canadian Food Plate, photo below, suggests the proportion of each food group – plants, grains and proteins – to eat daily. Remember that nuts, beans and legumes count as proteins.

About half your plate should be fruits and veggies – aim for lots of different colors - a quarter protein and another quarter whole grains.



Eat food. Not too much. Mostly plants.

Tastes and habits: When people say, ‘I can’t drink coffee without sugar’ or ‘I can’t eat an egg without salt’, I wonder if they remember what got them into their overweight situation in the first place.

Changing eating habits is a process, both challenging and rewarding. The good news is that you really can change.

The bad news is that it takes time. Most people require at least 2 months for a new taste preference to become fully automatic though some people take up to 8 months

according to research.[130] Understand and accept this. Give yourself time to change your habits.

This habit development process may suggest why our modern diet industry so often fails people. It operates within two mutually exclusive constraints.

- First, it has to deliver weight loss results quickly enough that people don't drop out and post negative reviews online.
- But second, long term sustained weight loss and new habit creation takes a long time.

You can't generate fast results slowly! That's why I didn't want to get involved with it. I wanted a program without commercial or time pressure.

Hunger. Eating fewer calories per day makes you hungry. That's simply reality. I learned to differentiate three types of hunger.

*** Hunger as not feeling completely full.** I had previously enjoyed eating until I was 'pleasantly satisfied'. I don't get that feeling anymore.

Instead, I feel 'full enough' these days, not exactly hungry but not completely full either. I could happily eat an additional muffin at breakfast, a bigger sandwich at lunch, an extra helping at dinner or a second bowl of fruit in the evening. But I don't.

I've learned to embrace feeling 'full enough' when I reach my calorie limit per meal. It's my new normal, my new habit. Today it feels right.

You can adapt to this new feeling too. Just give yourself time. And remember your goal.

*** Hunger as deprivation**, actual physical need. This is sometimes called 'belly hunger' as opposed to 'head hunger', below.

I wasn't worried about physical deprivation as long as I ate every 4 – 5 hours. I knew that my 2200 calorie per day program was sufficient for good health; the 1970 era US food experience proved that. Two hundred million Americans ate that way every day. End of story.

Some people, of course, might have special nutrition or health issues. I can't speak to those. Still not a doctor.

***** Head hunger differs from **belly hunger**. Head hunger goes away when you think about something else. Belly hunger does not.

---

[130] Grohol, Need to Form a New Habit? Give Yourself At Least 66 Days, PsychCentral, October 7, 2018 https://psychcentral.com/blog/need-to-form-a-new-habit-66-days ; UCL News August 9, 2009 Interview with Phillippa Lally https://www.ucl.ac.uk/news/2009/aug/how-long-does-it-take-form-habit

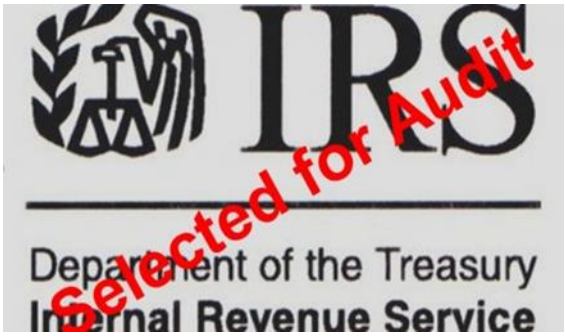
Try this thought experiment to understand the difference: visualize a delicious burger or juicy steak or moist chocolate cake or juicy mango. Imagine the taste. Picture it. Anticipate the sensation as you bite in.

Hold that thought.

Feel hungry? It's head hunger.

Now think of an IRS audit or root canal surgery. Visualize it. Hold onto it. Lose the hungry feeling?

Causes head hunger



Removes head hunger

Head hunger is a mental state. You can feel it equally few hours after either a big or small meal. When you feel it, think about something else. Easier said than done of course.

Food costs. Vegetables, per calorie, cost more than most other food groups due to various food subsidy and tax programs. Understand this and be prepared for a food budget increase.

Restaurants pose a problem for calorie restricted diets. Here are four suggestions that might help:

- Split a main course with someone and complement each portion with a side salad.
- Ask the restaurant to bring a doggie-bag containing half of your meal ***when they serve it***. I find this works better than attempting to estimate and eat half first, then asking for a doggie bag later.
- Stick with salads and protein toppings. Careful with the dressing. This option might make the restaurant experience less special, but it will make your calorie intake more predictable.
- Pay attention to drinks, both alcoholic and non. Wine has about 120 calories per glass, beer 150, gin and tonic 170, Long Island iced tea 280 and Margaritas up to

450.[131] Coca-Cola classic has 140 calories per 12 ounces, orange juice about 110 per cup and chocolate milk about 200. Those all count toward your daily total.

Cheating: Try not to. You'll only sabotage your progress and depress yourself at your next weekly weigh in. Be honest with your measurements and anticipate that you'll be on this program for several months at least, maybe for life (maintenance period).

Summary: Eat according to the clock and follow your grandmother's advice: eat the foods she would approve, don't eat foods she wouldn't recognize and control your portions.

Allow yourself time to develop new habits.

****

I invented some recipes, unexpected food combinations that satisfied me. Several became my new habits. If you like any, use them. Feel free to invent your own!

Breakfasts

Toasted English muffin with peanut butter plus a banana with almond butter. I eat this most frequently, perhaps 5 times per week. Cut a whole wheat English muffin (100 calories) in half and toast both halves. Then spread one tablespoon of salt-free peanut butter – about 100 calories – onto the 2 halves, about half a tablespoon per half. I don't add jam because I don't like very sweet tastes for breakfast, but that's just me.

Then cut a ripe banana, about 100 calories, in half and spread one tablespoon of almond butter – about 100 calories - onto it, again half a tablespoon per half. I prefer almond butter to peanut butter with bananas but again, my own preference.

Poached eggs on oatmeal. Instead of 2 scrambled eggs and 2 pieces of toast for breakfast, I substituted 2 poached eggs over oatmeal with a splash of ketchup, again my own taste preference. Oatmeal instead of wheat, one grain for another. Make it thick. One-third cup of steel cut oats is 170 calories, two jumbo eggs total 180.

Sometimes I add tomato slices or steamed broccoli. Tasty. Other times I melt Swiss cheese into the oatmeal, then put one egg on top. Delicious!

Plenty of other breakfast options exist within that original 400 calorie constraint. You're only limited by your imagination.

[131] Best and Worst Booze While Dieting, Carolyn Williams on cookinglight.com https://www.cookinglight.com/healthy-living/weight-loss/best-alcohol-drink-on-diet

Lunch

I often eat leftovers for lunch, generally vegetables with some protein and fruit for dessert. Sometimes I add peanuts, cashews or butter beans - I really like butter beans - depending on our refrigerator's contents. Remember to estimate your calories honestly when you do this.

Here are some creative combinations that I enjoyed.

Tuna fish sandwich with pickles and a chocolate banana smoothie. I use chunk light tuna, only 90 calories per can, oilier than solid white so requiring less mayonnaise; add about ½ tablespoon, 50 calories. Then 2 slices of bread @ 100 calories each, a tomato slice and lettuce with a side of pickles for a 360 calorie, filling sandwich. Maybe add a splash of mustard (!) for flavor.

Then, assuming your taste buds require (mine generally do), make a frozen banana smoothie. One cup of skim milk (100 calories), a banana (another 100) and 2 tablespoons of Ovaltine (40 calories). I prefer Ovaltine to other chocolate syrups, but again, that's just me. Total about 240 calories, making your tuna sandwich plus smoothie a tasty 600 calorie lunch.

Beans or mussels in tomato sauce over steamed vegetables. One 8-ounce packet of frozen mussels (I use PanaPesca) contains 175 calories; 3 cups of broad beans about 150 calories. One cup of tomato or marinara sauce has about 120 calories depending on the brand. Put this modified bolognaise sauce over steamed zucchini, broccoli or cauliflower and sprinkle with parmesan cheese for a delicious and filling 300 calorie lunch. Enjoy a couple pieces of fruit for dessert.

I sometimes substitute chicken, garbanzo beans or left-over steak.

And I sometimes, though rarely, put this over a cup of pasta, about 200 calories.

Plenty of options to try.

A word about vegetables and salad. Per volume, vegetables contain fewer calories than most other foods. It's hard to overeat spinach or broccoli!

Try mixing three cups of raw spinach (25 calories) with a cup of raw beets (45 calories), a large tomato (25 calories), left over veggies from your refrigerator and any other vegetables you have on-hand. Then top with your favorite cheese, nuts or protein.

Careful with the dressing though. I limit myself to 1 tablespoon, generally of Italian or Greek dressing, 50 - 75 calories depending on the brand. Sometimes I make my own, mixing olive oil, vinegar and mustard or horseradish.

A word about fruit. I normally eat at least 3 pieces of fruit every day in addition to my frequent morning banana. I'm partial to apples, oranges, clementines, strawberries,

raspberries and blueberries. We're not, in my family, big melon, pineapple or mango people but if we were, I'd include those too. It's a matter of taste again.

Dinner

We enjoy broiled vegetables at almost every dinner during the winter and grilled veg in the summer, generally broccoli, cauliflower, green beans, Brussels sprouts or eggplant. I char them slightly and sometimes sprinkle lightly with salad dressing. ('Lightly' means about a tablespoon per pound of veg.)

We typically eat this as a side dish with grilled meat, chicken or fish, most often fish. Sometimes my wife and I split a sweet potato too, about 80 calories per half. That adds natural sweetness to the meal.

Remember to control your portions! Steak has more calories per pound than chicken; salmon more than white fish.

We also try more creative dinners too.

Tomato sauce with turkey or beans and vegetables. This becomes a stand-alone stew; no pasta required. We use low fat ground turkey, a low calorie / low salt pasta sauce (read the labels) and add broccoli, cauliflower, peas, onions, mushrooms, peppers or fresh tomatoes. Then flavor with red wine.

We sometimes substitute butter beans for the turkey.

One issue with this meal: estimating calories accurately, especially leftovers. I generally add up all the calories in the entire batch, then estimate portion size – a quarter, a third, etc. Close enough for our purposes. Overestimating your portion today leads to underestimating it tomorrow or vice versa.

I then label the leftover calories in the fridge because I forget otherwise.

Baked feta and vegetables. Cut a block of feta cheese into 300 calorie chunks then bake or broil with red onions and cherry tomatoes. Sprinkle lightly with Greek salad dressing. Add a glass of chilled white wine, about 100 calories.

We sometimes add or substitute tofu for feta. Same idea but a different flavor.

Homemade oatmeal muesli, a sweet, Swiss-themed change from veggies and protein. Mix together 1/2 cup of steel cut oatmeal (255 calories), ½ cup of unsalted cashews or peanuts (320 cal.) or almonds (414 cal), a cup of blueberries (85 cal.), a cup of strawberries (50 cal.) and a banana (100 cal.). Total about 800 calories depending on your specific ingredients. Top with yogurt or honey, another 70 calories or sprinkled coconut. Eat hot or cold.

Snacks and Deserts

Some of my favorite quick-and-easy snacks include:

- Baked apples with cinnamon
- Blueberries or raspberries. 85 cal. per cup each + 1 tablespoon honey, 70 cal. equals 155 calories total
- Yogurt with Ovaltine. ½ cup fat free, sugar free yogurt, 60 cal. + 2 tablespoons of Ovaltine, 40 cal. = 100 calorie version of chocolate mousse. OK, not *exactly* mousse but it's pretty good. I sometimes double this if I'm ahead on my daily calories. (Haven't tripled it yet.)

You'll invent your own recipes. Write everything down so you remember which worked best for you.

Step 3: Go for a daily brisk walk.
or get some other form of daily exercise

Our metabolisms slow down as we eat fewer calories. To counter this, exercise every day. I normally enjoy a brisk daily walk, equal emphasis on **brisk** and **daily**. 'Brisk' means you can *just barely* keep a conversation going. Walk with a friend to find your own speed using this metric. (Check with your doctor to make sure you're healthy enough first.)

Our frighteningly unfashionable hero in his winter walking outfit, 2021

I average about 420 minutes – 7 hours – of brisk walking per week. I measure minutes of exercise per day instead of steps or total walking distance to allow for variety - swimming, bike riding, exercise classes, weight-lifting, cross country skiing or similar activities.

Interestingly, both the CDC and British National Health Service recommend *at least* 150 minutes per week of brisk exercise for everyone. More is better. That weekly 420 minutes of brisk walking helped keep my metabolism from slowing down as I ate fewer calories. The simple form at the end of this book helped me stay on track. Try it yourself.

Daily exercise – walking in my case - like everything else in this book, becomes a habit. You miss it on days you don't go. Allow yourself time for this habit to develop.

I like to measure both my daily exercise time and walking distance. The goal is to maintain at least, and hopefully increase, both. Various smart phone apps can help.

One day, early in this program, I walked 4 miles in 70 minutes, about 17.5 minutes per mile, finishing tired and certain I couldn't go farther or faster. Six months later, on a mid-February walk, I averaged 15:30 per mile for 5 miles, equally certain that I couldn't go faster … but pretty sure, this time, that I could go farther. (I actually went 7 miles a week later though at a slower 16:30 pace.)

Some people prefer to track total daily mileage or total daily steps. These are different ways to measure the same thing. I prefer exercise minutes since I can plan and control these, but again, just my preference. As long as you walk briskly during your exercise minutes, any measure can work.

One trick that keeps me motivated, even enthusiastic about walking every day: I listen to novels, generally long ones that keep me engaged. I prefer historical fiction and mysteries but again, personal preference.

I've walked with Winston Churchill during the Blitz of London, young Nigerian intellectuals as they navigate life, Sherlock Holmes, seafaring merchants, unscrupulous criminals, clever detectives and many others. I look forward each day to reconnecting with my audio friends and often – oddly – feel sad when each book ends. Listening while walking has become another habit, one that I increasingly enjoy.

Confessionary addendum: I know that I should add strength training to my exercise regime. I keep meaning to start but, truth be told, I never enjoyed lifting weights or doing sit-ups. Maybe I'll start tomorrow.

Probably not.

Step 4: Write *everything* down.

Write down your food consumption after every meal and snack, and your exercise time (or whichever exercise metric you choose) every day. That keeps you on track to achieve your goals.

The forms below can help. Completing them becomes another habit. It takes a minute or so. I expect to continue this for years since I plan to stay in the 185 pound weight range for a long time.

Writing down your food consumption each meal also makes you think twice about what you eat. It acts as a speed bump, forcing you to ask ‘Do I really want to use this many calories on this food?’ I found it a useful exercise.

Weight I weigh myself first thing every Sunday morning, always on the same scale. That’s my ‘official’ weight though I confess to checking more frequently. I worry, slightly, that daily weigh-ins will drive me crazy, or, more likely, my wife. I’m already obsessive enough!

Beware of salt and water retention at your weigh-ins. Eating a salty evening meal – feta cheese or pasta sauce for example – can increase my weight by 2 to 3 pounds the next morning. Factor this into your calculations and, perhaps more importantly, watch your daily salt consumption. Harder to do than say unfortunately.

Meals You can use the attached simple form to track your daily calories. You’ll see patterns emerge pretty quickly. Plus this will keep you from overeating in response to head-hunger. I’ve inserted a week of meals simply as an example. You can set up these forms very easily in Excel and design your own meals.

Date	Breakfast	Lunch	Dinner	Snack(s)	Total
Sun	Eng Muffin (100) Pnut butter (100) Banana (100) Almond butter (100) Total 400	Salad bag (50) Tomato (30) Chicken left overs (300) Italian dressing (75) Apple (100) Total 555	Turkey stew (ground turkey, pasta sauce and veg) (750) Salad and dressing (100) Pineapple (120) Total 970	3 Clementine (105) Yogurt & Ovaltine (100) Blueberry + honey (150) Total 355	2280
Mon	Oatmeal (170) 2 jumbo eggs (180) Ketchup (20) Total 370	Cauliflower left overs (75) Butter beans (150) Dressing (75) Chicken (150) Apple & cashew butr (190) Total 640	Salmon (300) Broccoli (100) Salad (50) & Dressing (75) Wine (100) 3 clementines (105) Total 730	Bana & Alm butr (100) Blueber & honey (150) Yogurt & ovaltine (200)	2190

Tues	Eng Muffin (100) Pnut butter (100) Banana (100) Almond butter (100) Total 400	Broad beans (200) Steamed veg (150) Dressing (75) 2 sm oranges (180) Total 605	Cod & panko (450) Salad & beans (200) Dressing (75) 1 slice bread (100) Total 825	Blueberries & Activia (220) Orange (100) Apple (100) Total 420	2250
Wed	Eng Muffin (100) Pnut butter (100) Banana (100) Almond butter (100) Total 400	Impossible burger (270) 2 x Bread (200) L & T, mustard, pickle (30) Apple (100) Total 600	Oatmeal (170) Cashews (320) 2 cups frozen fruit (140) Honey (70) Total 700	Baked apple & cinn (200) Yogurt & Ovaltine (200) Total 400	2100
Thurs	Eng Muffin (100) Pnut butter (100) Banana (100) Almond butter (100) Total 400	Tuna (90), mayo (50) 2 x Bread (200) Pickles, L & T (40) Skim milk & banana (200) Ovaltine (40) Total 640	Swordfish (400) Broccoli (200) Green beans (100) Dressing (75) Blueberries (85) Total 860	Apple (100) Orange (100) 2 x Clem (70) Total 270	2170
Fri	Oatmeal (170) 2 jumbo eggs (180) Ketchup (20) Tomato (30) Total 400	Broccoli (100) Green means (50) Swordfish (200) Dressing (50) Pear & orange (200) Total 600	Baked feta (300) Tomatoes, onions (50) Broccoli (100) Potato (200) Wine (100) Total 750	Blueberries & honey (180) Yogurt & Oval (200) Clem (100) Total 480	2230
Sat	Oatmeal (170) Swiss cheese (100) 1 egg (90) Ketchup (20) Total 380	Tuna (90), mayo (50) Eng muffin (100) Pickles, L & T (40) Skim milk & banana (200) Ovaltine (40), Apple (100)	Beans (200) Rice (200) 1/3 cup cashews (250) Salad and dressing (150) Blueberries (100)	Baked apple & cinn (200) Yogurt & Oval (100) Orange (100) Total 400	2260

		Total 580	Total 900		

Exercise Use this form to track your daily exercise, total mileage or steps. If you track exercise minutes, focus on brisk walking minutes, the time your heart beats more quickly than normal so you can just barely keep a conversation going.

Exercise minutes per day, mileage or steps

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Total
date								
date								
date								

Results and Lessons

This program worked for me. It may also work for you. No promises but I hope so.

If you decide to try, give it an honest effort. Stick with it for at least 6 months, long enough to develop new food habits.

You'll likely be pleased with the results.

Below, a sample of my own experience over 3 months, enough to make the point.

Weekly Food Consumption, Exercise and Weight Change
4th quarter, 2020

Week Ending Date	Average Calories Consumed per Day	Total Minutes Walked per Week	Sunday Morning Weight	Weight change, pounds, rounded
Oct 4	2120	465	207	
Oct 11	2020	535	206	-1
Oct 18	2230	465	204	-2
Oct 25	2110	550	203	-1
Nov 1	2300	360	202	-1
Nov 8	2019	475	201	-1

Nov 15	2087	455	200	-1
Nov 22	2657 (Thanksgiving)	580	198	-2
Nov 29	2069	540	199	+1
Dec 6	2157	320	196	-3
Dec 13	2452	485	195	-1
Dec 20	1999	340	197	+2
Dec 27	2400	410	196	-1
Jan 3, 2021	2332	600	195	-1
Averages over 14 weeks	2210	470		-.9 **lb. per week**

Plan Design Overview and Issues

Let's start with an analogy.

Clayton Christensen, a professor at Harvard Business School best known for studying business innovation - and particularly disruptive innovation - wrote an insightful article about the US educational system in the May 11, 2014 Boston Globe.[132] As you read some highlights from that article, consider the analogy to our healthcare system.

- *Tuition costs have been ballooning faster than general inflation…and what do we get in return?*
- *Nearly half of all bachelor's degree holders do not find employment or are underemployed upon graduation. At the same time, employers have not been satisfied with degree candidates.*
- *Two recent Gallup polls showed that although 96% of chief academic officers believe they're doing a good job of preparing students for employment, only 11 percent of business leaders agree that graduates have the requisite skills for success in the workforce.*
- *And this is all occurring while higher education leaders were convinced that they were innovating all along.*

Now let's substitute 'healthcare' for 'education' and rewrite:

- *Premiums have been ballooning faster than general inflation…and what do we get in return?*
- *Lower life expectancies, higher infant mortality and poorer access than other countries.*
- *At the same time, employers have not been satisfied with broker services.*
- *A recent poll showed that although most brokers believe they're doing a good job of developing benefit strategies and communications, only about half of business leaders agree that brokers do a good job implementing and executing desired programs.*
- *And this is all occurring while brokers are convinced that they were innovating all along.*

[132] Clayton Christensen et al, Thank You MOOCS, Boston Glove, May 11, 2014

The poll in question was Zywave's 2013 study of customer satisfaction with broker services that received 5500 responses. Some highlights: [133]

- Creates strategic plan that aligns with company goals: **43% unsatisfied**
- Offers employee benefits and consumerism communication / education: **41% unsatisfied**
- Assists with creating or maintaining a workplace wellness program: **66% unsatisfied**

Part of the problem comes from our employer based health insurance distribution system. We are the only major advanced, industrialized country that uses employer based health insurance as the primary mechanism of financing healthcare. Other countries use employer based coverage – if they allow it at all – to supplement the national health insurance system.

We, in the US, use public programs like Medicaid and Medicare to supplement employer based coverage, exactly the reverse of everyone else. If you can get health coverage through your employer, you (generally) cannot get public coverage. How does employer based primacy impact our overall healthcare system?

Princeton economic professor Uwe Reinhardt answered that question in his New York Times piece 'The Culprit Behind High US Health Costs' in 2013. [134] Here are some direct quotes:

- *Most health-policy analysts I know regret that employers appointed themselves their employees' agents in the markets for health insurance and health care*
- [Employers are] *the sloppiest purchasers of health care anywhere in the world. For more than half a century, employers have passively paid just about every health care bill that has been put before them, with few questions asked.*
- *One reason for the employers' passivity in paying health care bills may be that they know, or should know, that the fringe benefits they purchase for their employees ultimately come out of the employees' total pay package.*
- *In a sense, employers behave like pickpockets who take from their employees' wallets and with the money lifted purchase goodies for their employees*
- *[Carriers] are merely the conduits for the employers' wishes.*

[133] This study was summarized at the Massachusetts Association of Health Underwriters annual 'Benefest' in a presentation by Sarah Lucas of Marshberry entitled 'Trends and Best Practices in Employee Benefits Agencies'.

[134] Uwe Reinhardt, The Culprit Behind High US Health Costs, NY Times, June 7, 2013

- *When agents perform poorly, one should look first for the root cause at the principals' instructions.*
- *a decade of health care cost growth under employment-based health insurance has wiped out the real income gains for an average family with employment-based health insurance.*

Reinhardt then provided his data. In 2013, for an average family of 4, employer based health insurance cost $22,000, up $10,000 since 2003, compared to median family income of $55,000. He then suggests

- *One must wonder how any employer as agent for employees can take pride in that outcome*

I would extend that query to brokers, echoing the Christensen and Zywave points above.

Over time we developed more and more 'fill in' programs to cover people excluded from the employer based system – old people, unemployed people, veterans, children and others. Combining and coordinating these various programs leads to confusion, inefficiencies and costs.

One confusing consequence of employer based primacy and myriad fill in / supplementary programs, for example, is that our system treats people differently based on non-health factors, like who they are or where they work. Unlike other advanced countries, we have different systems and rules for

- Full time employed people
- Part time or low income people
- Very poor people, provided they are also either **i** children, **ii** blind or disabled, **iii** elderly, **iv** mentally ill, **v** pregnant women or **vi** mothers (if they don't fit into one of these six categories, they are treated like 'part time or low income people'. Understand?)
- People over 65 years old
- Young people who don't otherwise qualify for health insurance
- Military veterans provided their medical problems are 'combat related' and
- People with kidney disease, among others.

As you move from group to group – in other words, as your economic conditions change (generally) - you face different medical access rules, different financing rules and tons of paperwork. This does nothing to improve health and adds no efficiencies to our system.

We, in other words, base our healthcare financing and access systems on non-health related categories of people. Since the groupings are arbitrary, much more a function of interest group lobbying than healthcare distribution efficiency, compliance becomes extraordinarily difficult: compliance experts can't apply logic or reason to regulations. Instead, they must memorize or continuously consult the regs. This makes absolutely no medical or economic sense except, perhaps, to the favored business interest groups.

It only adds overhead, inefficiencies and costs to the system.

Complexity and confusion add costs more in the US than in other countries

Consider the relative inflation rates in the US and some other advanced countries. Inflation, of course, is driven by many factors, only one of which is systemic complexity. But it's difficult to design rational, cost-cutting, efficiency-promoting reform on top of an inefficient, irrational structure.

I use 2003 as my comparison basis because that was the year we introduced tax advantaged deductibles, designed to reduce unnecessary utilization and costs. Policy makers in the W. Bush administration figured that if patients pay with their own money they'll be more frugal and less wasteful. That was a big change from the traditional first-dollar-coverage in managed care that many saw as promoting unnecessary care.

	2003 healthcare spending	
US	$3788 per capita	
Canada	$2054 per capita	US spends 1.84x as much
United Kingdom	$1344 per capita	US spends 2.82x as much
France	$2093 per capita	US spends 1.81x as much
Germany	$2943 per capita	US spends 1.29x as much

	2011 healthcare spending	
US	$8508 per capita	
Canada	$4522 per capita	US spends 1.88x as much
United Kingdom	$3405 per capita	US spends 2.50x as much
France	$4118 per capita	US spends 2.07x as much
Germany	$4495 per capita	US spends 1.89x as much

From passage of the Medicare Modernization Act in 2003 at least under passage of the Affordable Care Act in 2010, our relative healthcare spending position has worsened vis-à-vis other countries. We not only spend *more* than these countries but, on average over time, we spend *more* more.

An underlying problem, at least from the broker or 'benefits advisor' perspective is that the enormous complexity of our healthcare system leads brokers to become expert at compliance, not at healthcare or healthcare systemic efficiency. In fact, 'health' insurance brokers today need understand nothing about 'health', only about compliance, to have successful, financially lucrative careers.

But compliance, as I suggested above in the discussion of Christensen and Reinhardt, does nothing to control costs or improve systemic value. Benefits advisors who *only* advise about compliance provide far less value to their clients than they could.

This was made poignantly clear to me one day in a lecture. I asked an experienced broker why she attended, as her agency normally didn't contract with me. Her response:

> *I sell CDH plans, understand HSAs, HRAs, deductibles, FSAs, networks and all the rest.*
>
> *But I recently switched employer, and I now have a high deductible plan…*
>
> *And **I** don't know how to use it!*

Consumer engagement to the rescue … or not

My somewhat depressing response to her comment: if the pros don't know how to navigate our healthcare system for themselves – don't know which services to use, which are wasteful and harmful – how much can they help their clients? Too often, their compliance advice only helps their clients access unnecessary, inappropriate or wasteful services, with up to some 40 or 50% of all healthcare spending going to services that do nothing to promote health.[135] The compliance focus only promotes easier access to care, much of which is unnecessary.

Brokers, and far too often also their clients, lack the tools to differentiate necessary from unnecessary interventions. That's the real impact of the broker comments quoted above.

Indeed, today's 'consumer engagement' emphasis falls into the same quagmire as the rest of our system. 'Consumer engagement' to health insurance brokers means knowing deductibles, plan design details, tax implications and the like. Knowing these things does not decrease costs, waste, unnecessary care or improve patient outcomes.

---

[135] Several scholars at Dartmouth Medical School, notably Elliott Fisher and John Wennberg, have written extensively about this. Shannon Brownlee's excellent Overtreated provides plenty of detail. I'll belabor this point myself later in this book. The 'up to 50%' estimate is mine, not theirs.

But better outcomes are (almost) always cheaper than poorer outcomes!

Healthier people cost our healthcare system less, and the more efficiently our system turns people from *un*healthy to healthy, the less we spend on them. Poorer outcomes – infections, returns to operating tables, ineffective medications, high false positive test rates etc – always cost more. (Yes, I know that MRI costs vary significantly. But no one wants the cheapest unnecessary MRI.)

That's why the medical community, as opposed to the brokerage community, defines consumer engagement as knowing ***how well*** medical care works, not how to access it financially or where to get the cheapest. The well informed consumer, to the medical community, knows about the 'health' part of health insurance.

Note the discrepancy between the insurance and medical definitions. The insurance definition does nothing to improve outcomes or reduce waste and thus can't have much cost control impact.

But the medical definition directly attacks waste and improves outcomes so ***can*** significantly reduce costs. In fact scholars like Dr. Michael Barry of the Informed Medical Decisions Foundation and Dr. Albert Mulley of Dartmouth Medical School, suggest that well informed (medical definition) patients cost roughly 20% less than poorly informed patients. Much more on this coming up.

Unfortunately, our medical consumer engagement process falls trap to yet *another* definitional problem. Here's Dr. Suzanne Koven, summarizing it in the Boston Globe: [136]

- I appreciate patients informing and advocating for themselves
- I don't appreciate patients arguing with me about anatomy and physiology

In the 10 or so minutes patients typically spend with doctors, they can either question their doctor's competence ('arguing about anatomy and physiology') or discuss treatment options. They probably don't have time to do both.

And they'll probably lose the anatomy and physiology argument. Doctors know much more about medical care and technology than the typical patient ever will. Four years of medical school really do provide a solid technical foundation. Your doctor can out-fact you many times over. (Yes, your doctor may have misdiagnosed your problem. But that's best remedied by a second opinion, not an argument about physiology.)

You, however, know much more about your own treatment preferences than your doctor does. That's the real goal of consumer engagement: aligning treatment processes with patient preferences. That process – having doctors and patients explore treatment

[136] Suzanne Koven MD, Is physician burnout really a problem? Boston Globe, May 26, 2014

options to choose the best for each patient – can have a huge impact on utilization and costs. [137]

We have not, in this country, developed a standard definition of 'consumer engagement' or 'well informed patient' because, I suggest, of the 'mess' [138] that our system has become, largely due to the irrational employer based financing model upon which it rests. Compliance issues have become so overwhelming that brokers, and often their clients, simply don't have the time or energy to discuss more impactful issues.

As brokers struggle with compliance and plan designs, physicians with appropriate consumer information and advocacy, and the internet explodes with medical factoids and information, consumers get overwhelmed. Who gives them direction for their own research? What do they need to know? Which information is correct? Which is valid and appropriate?

Six faulty assumptions

Too often patients make assumptions and medical decisions that are, simply, wrong. I'll give some examples. How many of these resonate with you?

Faulty assumption #1: Good medical care leads to good health

Many people believe that good medical care leads to good health. As one thoughtful and articulate broker once said to me over an informal lunch, describing his young family, 'I have great healthcare for my kids. They're doing really well.'

Nonsense, I responded. 'Your kids are doing well because they're intellectually and emotionally within the normal range, have a mother and father who love them, live in a safe neighborhood, get plenty of good food and fresh air, have friends, and are warm in the winter and cool in the summer. The quality of their physicians and hospitals has virtually nothing to do with their health.'

Indeed, overwhelming evidence shows that good health comes from, in no particular order, good nutrition, exercise, emotional security, environment, public safety, socio-economic status *and* medical care, but that medical care is a relatively small component of good health.

How small a component? About 10%, according to the Massachusetts Health Policy Commission's 2013 cost trends report. Here are direct quotes from page 22:

[137] We'll discuss preference sensitive decision making in detail later in this book

[138] "Mess' comes from the title of Dr. Julius Richmond and Rashi Fein's 2005 book 'The Healthcare Mess'. Both authors were professors at Harvard Medical School.

- Massachusetts residents have better overall health than the United States average, with an additional 1.6 years of life expectancy and 0.9 fewer physically or mentally unhealthy days per month.

but

- Research shows that such outcomes are driven largely by social and behavioral factors, along with public health policies, while health care services delivered account for only 10 percent of general variation in health status.

Richmond and Fein, the two highly respected Harvard Medical School professors, echoed this in their 2005 book The Healthcare Mess: [139]

> Health gains since World War II were largely the consequence of progress in applying our knowledge of health promotion and disease prevention rather than improved clinical care.

Dr. William Frist, cardiologist and former US Senate Majority Leader, estimates medical care's impact slightly higher than the Massachusetts Health Policy folks, at 15 – 20%, saying

> Health is not health services. Health is behavior, it's genetics, it's socio-economic status, it's disparity, it's environment. Health services has about a 15 – 20% impact. [140]

We all know this but we forget it when we, ourselves, get sick or frightened. One reason, I submit, is that we have not been taught how best to use our medical care system. (Now *that's* an interesting value added role for brokers. Don't worry – I'll go into it in detail later.)

Here are some numbers to bolster my argument that 'more medical care isn't better for you'. Compare average medical spending per capita in various states with average longevity in those states. The assumption, of course: if more medical spending had a big impact, people who live in high spending states would live longer than people in low spending. That is not nearly the case.[141]

State	**$/capita 2009**	**Longevity at birth** 2013
Massachusetts	$9,278	80.5
Minnesota	$7,409	80.9

[139] Richmond and Fein, The Health Care Mess, pages 92 and 94

[140] CNBC Meeting of the Minds: The Future of Healthcare, broadcast in July 2009.

[141] Spending data from Kaiser Family Foundation. Longevity data from Measure of Americans. I used longevity data 4 years in the future to account for any potential health benefits of high 2009 spending.

Washington state	$6,782	79.9
Utah	$5,031	80.2
Mississippi	$6,571	75.0
Oklahoma	$6,532	75.9
West Virginia	$7,667	75.4

Good medical care doesn't necessarily lead to good health. Lots of other things are far more important.

By the way, based on the state data presented above, should a broker provide the same benefits advice in Minnesota and West Virginia? Or Massachusetts and Utah?

Faulty assumption #2: Lower deductibles and wider networks = better health insurance

Brokers and consumers too often equate better health insurance policies with lower deductibles and wider provider networks. Poorer policies have the opposite.

Unfortunately, there's no evidence - none that I've seen, at least, and I've looked - that lower deductibles or wider networks lead to better patient outcomes.

One reason for the faulty equation of wider networks with better policies: we have very poor outcome data by provider in this country. Lacking such data, consumers apparently prefer easier access to lots of (potentially mediocre) physicians and hospitals, figuring that one of them should be good in a crisis I guess.

Though we lack evidence that lower deductibles and wider networks lead to better patient outcomes, we have some evidence that lower deductibles and generous benefits can lead to patient harm. Here's Bernard Rosof, Chairman of Huntington Hospital in New York:

> Often people with generous insurance plans can run up large bills and face life threatening complications from unnecessary care. [142]

We also have extensive evidence that *better decision making* leads to better outcomes.

Faulty assumption #3: Newer technologies and medications are better

This is almost a mantra in this country: newer technologies / newer meds / robotic surgeons etc are better, so, when in doubt, get the newest.

This overlooks the fact that 'newer' is a very poor proxy for 'better'. Extensive evidence shows that *outcome based decision making*, not the newest shinny object, leads to better outcomes.

[142] More care is not necessarily better care, Connolly, Washington Post, 9/29/09

Consider Pradaxa, a newer blood thinner than warfarin, heavily advertised on TV and designed to overcome warfarin patient's need for excessive testing. Pradaxa's annual sales hover around $800 million. Its TV ads claim

> *In a clinical trial, Pradaxa was proven superior to warfarin at reducing the risk of stroke in patients with Afib not caused by a heart valve problem*

suggesting to the poorly informed, who don't know the right questions to ask or how to make outcome based decisions, that the newer drug was better. However…

In their legal settlement announced in May of 2014, Pradaxa paid **$650 million** to settle **4,000 claims** that company didn't adequately warn of risks including severe or fatal bleeding. (If death is a side effect, what's the main effect?) Unlike warfarin, there is no known reversal agent or antidote for Pradaxa.

Or consider robotic surgeries for hysterectomy patients. The da Vinci robot, approved by the FDA in 2005, is designed to generate better results and an easier recovery that traditional laparoscopic surgery, meaning less pain and fewer complications [143] all of which sounds great to the uninformed.

But a massive study of 264,000 women who had either laparoscopic or robotically assisted hysterectomies at 441 hospitals between 2007 and 2010 showed no benefits from robotic surgery when benefits are measured as complication rates or blood transfusion rates. The robotic procedures, however, cost about $2000 more. That's roughly 1/3 more.

Again an interest group, the robot manufacturers, benefited by making more money, while patients did not, at least in terms of enjoying better outcomes. Just higher costs.

The morale of these stories, and there are many more: *newer* isn't necessarily better in medicine. *More heavily advertised* isn't necessarily better. Instead *better* is better, based on outcomes from comparative studies. Well informed patients learn the right questions to ask and types of information to consider when evaluating their treatment options.

Faulty assumption #4: Publishing price lists will save money

Today, almost as an article of faith, brokers, carriers and healthcare consumers claim that knowing prices will save money. This is commonly called 'transparency' and the theory runs rampant among health insurance thinkers.

While I agree that a wise consumer should compare prices of similar quality products, then choose the least expensive to get the best value, I *don't agree* that simply publishing price lists will lead to any benefit, either systemic or individual. Remember:

[143] Rabin, Questions about Robotic Hysterectomy, New York Times, Feb 25, 2013

- You don't want the cheapest *unnecessary* care
- You also don't want the cheapest *poor quality* care
- You don't want cheap *inappropriate* care when slightly more expensive care might be preferable.

Let's consider tonsillectomies in northern New England. Here are tonsillectomy rates per 1000 children in various pediatric service areas during the period 2007 – 2010.[144]

Middlebury, Vt	5.6	Burlington, Vt	2.9
Berlin, NH	10.4	Lewiston, Maine	5.2
York, Maine	7.3	Portland, Maine	4.0
Presque Isle, Maine	5.8	Bangor, Maine	2.7
Dover, NH	8.1	Waterville, Maine	3.6
Manchester, NH	8.1	Ellsworth, Maine	3.8
Exeter, NH	8.4		

We know from these data that having about 3 tonsillectomies per 1000 children is appropriate, since there are no reports of kids in Burlington Vermont, Bangor Maine, Waterville Maine or Ellsworth Maine suffering poor health due to an insufficient number of tonsillectomies.

We also know that about 2/3 of tonsillectomies in Berlin New Hampshire, and half the tonsillectomies in York Maine are unnecessary since their tonsillectomy rates are so high.

Shopping for the least expensive tonsillectomy in Berlin or York leads to a bad medical care decision over half the time: people doing that get the cheapest unnecessary care. Imagine that your child has a bad reaction or needs a surgical re-do from an unnecessary tonsillectomy!

A far better approach is to learn the service quality and necessity first, and then, for two equally necessary services of similar quality, choose the least expensive. Don't put the cart before the proverbial horse.

Perhaps a better way to understand transparency is to consider the many types necessary to enhance good medical decisions. A wise patient would want access to transparency data addressing:

[144] These data come from the Dartmouth Atlas of Healthcare, Tonsillectomies per 1000 Children by Pediatric Surgery Area, 2007 – 2010. 'Pediatric service areas' are the geographical regions served by a specific pediatrician office. Kids in Burlington Vermont, for example, typically use Burlington pediatricians, not Berlin New Hampshire docs.

- Prices
- Treatment intensity as, for example, our tonsillectomy example above, or C-section rates by hospital, mastectomy rates by region or similar
- Clinical quality/ infection rates by provider and by treatment
- Treatment benefits
- Provider conflicts of interest

Providing only 1 may distort the message and lead patients away from making wise decisions rather than toward systemic efficiencies.

Another way to express this: homeowners who hire the cheapest plumber, framer, roofer, electrician and painter end up with the most expensive house that leaks. We tend to forget this when we consider healthcare prices.

Faulty assumption #5: Getting the least expensive care saves money

This variation on 'publishing price lists will save money' ignores a key factor in physician compensation: that doctors want to maintain their incomes and that time is their main inventory. When they receive less money per patient, they respond by seeing more patients.

This has negative, foreseeable but generally unforeseen consequences.

Dr. Sandeep Jauhar MD, PhD, and director of the heart failure program at Long Island Jewish Hospital, claims that 'there is no more wasteful entity in medicine than a rushed doctor'. [145] Because we're so rushed, he says, 'we order tests, prescribe drugs, hospitalize patients and — one of the costliest decisions a doctor can make today — call specialists for help' rather than explain to patients why some tests are unnecessary and specialist referrals inappropriate. 'Specialists in turn,' he says, 'order more tests, scans and the like.'

Cutting payments to physicians becomes a self defeating strategy.

Faulty assumption #6: Raising deductibles saves money

Deductibles, generally running about $1000 per year, are designed to act as a speed bump when patients consider medical care. Patients will spend their own money more wisely and frugally than they would spend the insurance carrier's money, according to the theory, thus avoiding unnecessary care and saving money.

Deductibles, unfortunately, act as a blunt instrument, perhaps doing more harm than good by failing to differentiate necessary from unnecessary medical care. Reducing

[145] Sandeep Jauhar, Busy Doctors, Wasteful Spending, New York Times, July 20, 2014

unnecessary care can, indeed, save money. But reducing *necessary* care can lead to poorer outcomes and higher costs.

Consider, by contrast, the French approach to deductibles. The French modify or exempt from cost sharing by **person** (disabled, elderly or sick), **treatment** (expensive, effective or necessary) and **medical condition**. The deductible is waived for people suffering from one of 30 'long and costly diseases' like cancer, severe chronic disease or long term psychiatric illness *for medical care is related to that condition*. But these people are still responsible for unrelated medical deductibles, say a broken leg or sprained ankle.

Our 'one size fits all' deductibles, by not differentiating among people, treatments or medical conditions sometimes actually add to costs rather than reducing them. One Medicare study showed that adding a modest copayment reduced the number of outpatient visits by about 20% per year.

But that came at the cost of 2 additional hospitalizations per 100 patients per year. The study conclusion, published in the New England Journal of Medicine:

> uniform increases in cost sharing for prescription drugs can have deleterious effects on health [146]

without reducing costs at all.

These faulty assumptions – and the system developed from them – lead to these types of conclusions by eminent scholars:

- American health outcomes among insured populations lag substantially behind those of other countries.[147]
- Americans at top income levels live longer than people at bottom income levels, *but less long than people at top income levels of other countries* [148] and
- Even the people most likely to be healthy, like college-educated Americans and those with high incomes, fare worse on many health indicators …[149]

Despite us paying more for medical care than any other country in the world!

---

[146] Trivedi 'Increased Ambulatory Care Copayments and Hospitalizations Among the Elderly, NEJM Jan 28, 2010

[147] Bradley and Taylor, The American Healthcare Paradox, page 9

[148] Gudrais 'Unequal America' Harvard Magazine July 2008 referring to research by Harvard Prof Majid Ezzati

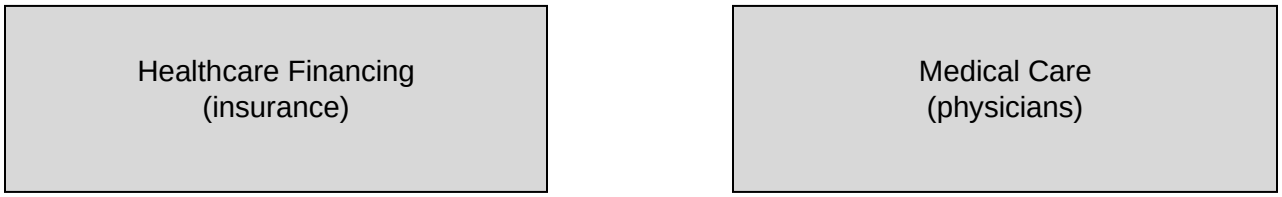
[149] For Americans Under 50, Stark Findings on Health, Tavernise, NY Times, Jan 9, 2013

The Fundamental Problem: Old School Thinking

Our systemic confusion and complexity has led to remarkable levels of specialization, not only in medical care but even in the brokerage community. Some brokers focus on Medicare, others on large group benefits, others on small group, some operate only in 1 state, others in many. Some agencies have wellness specialists, tax specialists and CDH specialists, others contract these functions out.

But few advise their clients about medical care issues, leaving that arena to physicians, often harried, often leading time compressed lives.

Our healthcare distribution system looks like is:



Two equally important but completely unrelated boxes. In the Old School, brokers provide financing programs while physicians provide medical care, but never the twain shall meet.

Brokers typically explain that they can't give medical advice because they're not trained or licensed to do this, which is, of course, true. **But I think they've conceptualized the problem incorrectly, relying more on superficial thinking than serious analysis.** Read on…

In the Old School 'nonintegrated' model, we expect physicians to address the following issues during an average 15 minute meeting with each patient:

- Patient's personal health status
- Disease diagnosis
- Treatment recommendations and alternatives
- Lifestyle issues and impacts on health
- Medication options, benefits and risks of each
- Individual risk factors and likelihood of future medical events
- Specific tests including benefits and risks of each
- Trends in medical care and new information since the patient's last visit
- Risks of having / not having specific tests or treatments
- Referral options *and more*

It's obviously very difficult to address all these issues satisfactorily in 2 hours, let along 15 minutes.

Five concerns about leaving all medical education to doctors

First, doctors respond to uninformed patient demand.

Studies show that about 1/3 of physicians would order a clinically unwarranted MRI if the patient demanded it, which raises patient risks without benefits since the MRIs in question are 'clinically unwarranted'. [150]

Many patients assume, as discussed above, that more medical care is better medical care, so a physician who doesn't prescribe a medication, test or treatment is a poorer physician.

Increasingly, physicians are compensated based on patient satisfaction survey results. Patients who believe 'more care is better care' penalize doctors who withhold painkillers, fail to prescribe a requested drug or test or skimp on referrals. This decreases the physicians' ability to counter the 'more is better' argument, even if they want to.

Studies show that, perhaps as a result of these factors, when faced with a potential screening test option, 95% of physicians recommended the screening test to their patients, and when faced with the option to prescribe medications, over 90% of physicians prescribed. [151]

Second, doctors respond to our legal / tort system, in which fear of malpractice lawsuits leads to excessive testing, Rx prescribing, excessive diagnoses and treatments. In one Gallup survey, physicians attributed 34 percent of overall healthcare costs to defensive medicine and 21 percent of their practice to be defensive in nature. Specifically, they estimated that 35 percent of diagnostic tests, 29 percent of lab tests, 19 percent of hospitalizations, 14 percent of prescriptions, and 8 percent of surgeries were performed to avoid lawsuits. [152]

Third, doctors get burned out so sometimes order tests, medications or treatments because it's easier than not ordering. One doctor described his interaction with a patient this way:

> *I could tell she wasn't happy. I decided that discussing the evidence would have been futile and I was too tired anyway*

Fourth, doctors pathologize or medicalize normal human behavior. Consider the patient who tells his doc 'I sometimes forget people's names in social settings.' Early stage dementia? (There's a drug for that). Social anxiety (There's a drug for that too.)

---

[150] O'Reilly, Patient satisfaction: when a doctor's judgment risks a poor rating, AMED News, November 26, 2012

[151] Data from presentation by Benjamin Moulton at Dartmouth's 2014 Summer Institute for Informed Patient Choice

[152] Hettrich, The Costs of Defensive Medicine, AAOS Now, December, 2010. AAOS Now is the Journal of the American Association of Orthopedic Surgeons

Or a normal human reaction to noise and social stimulation? (There may even be a drug for that but it's probably not necessary.)

Or the patient who went to the beach last weekend and tells his doc 'I love watching the women parade around in their bikinis.' Diagnosis: hyper-sexual disorder.

But the next patient, who went to the same beach, reports that 'I completely ignored all the women parading around in their bikinis.' (Low-T and, of course, there's a pill for that)

Pathologizing, of course, ties closely to malpractice issues described above as well as the problem of uninformed demand.

Fifth, physicians favor interventions. This is sometimes called 'supply sensitive care' which simply means that if medical technologies or interventions are available, physicians will use them.

This is also sometimes called Roemer's Law after Professor Milton Roemer who first discovered the relationship between medical supply and utilization in the 1950s. Roemer found that as more hospital beds are built in a community, more hospital beds are used. His law: a hospital room built is a hospital room occupied because physicians, whether consciously or not, tend to use all the medical resources at hand.

Let's apply Roemer's Law to radiologic scanners. Consider the growth of scans since the mid 1990s as more and more machines became available.

Scans per 1000 people/year [153]

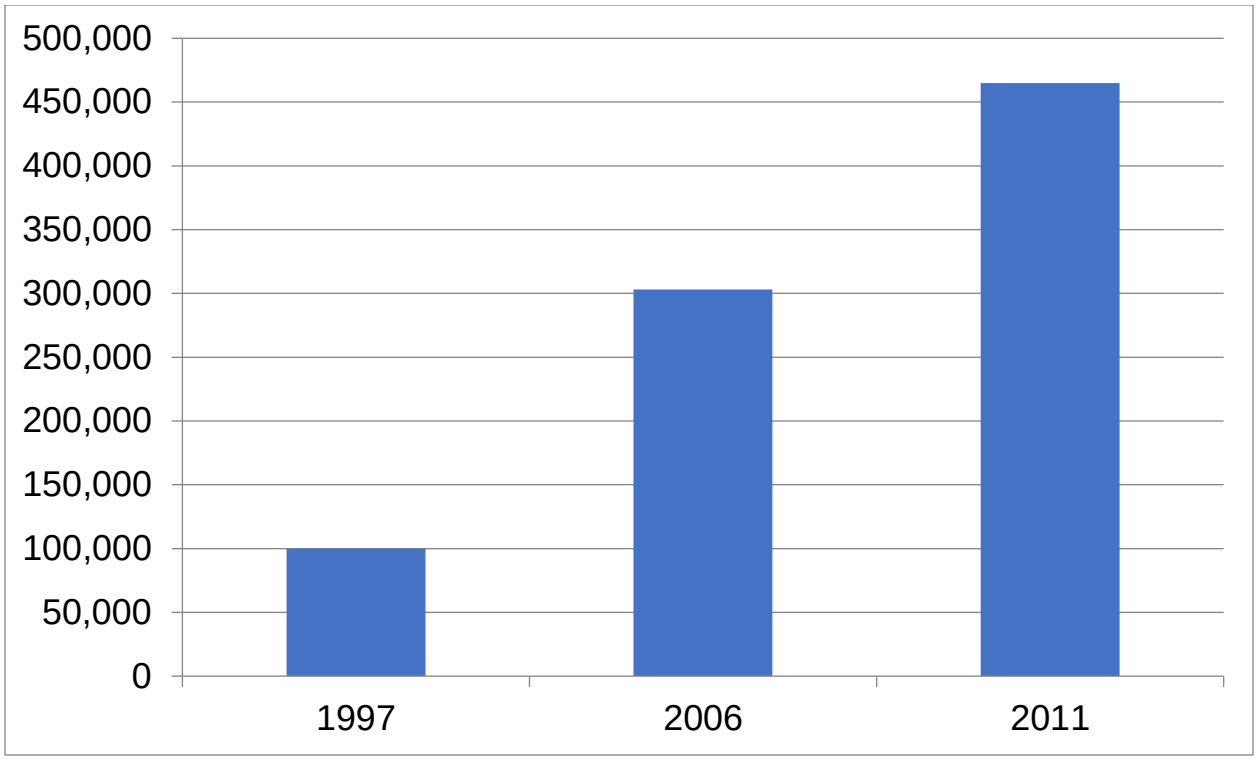
	MRI	CT
1996	52	17
2010	149	65

Note in passing the (non) impact of the internet on reducing medical care intensity. Google doesn't have much impact on reducing excessive or unnecessary care, despite most patients today claiming that they're 'well informed' since they do online research before engaging in medical care. Sorry, I don't buy it.

Now look at the impact of graduating more orthopedic specialists from medical schools:

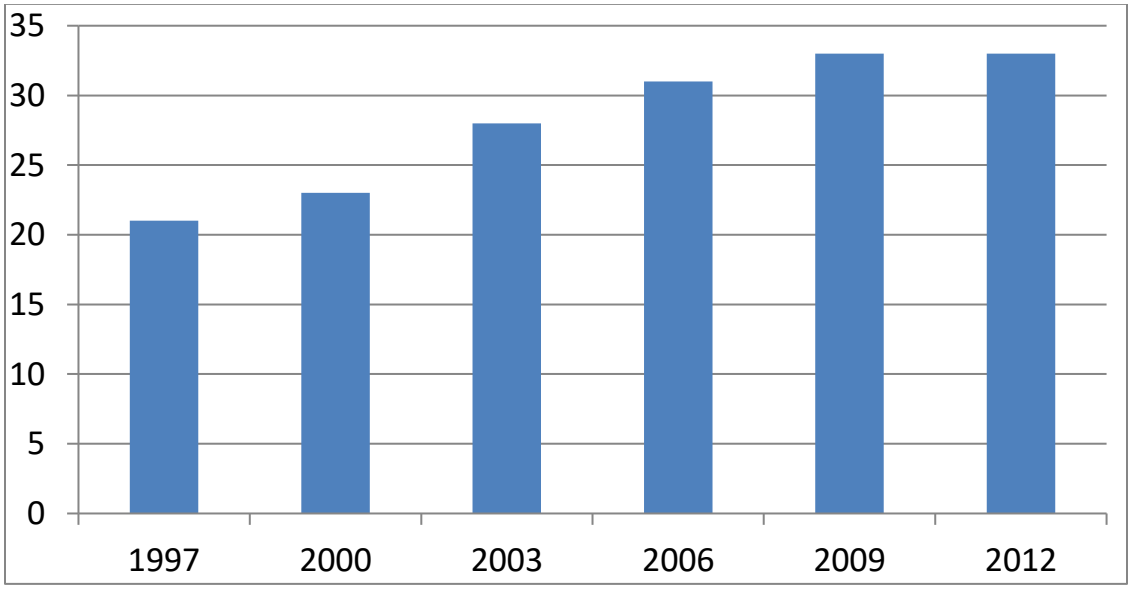
Number of Spinal Fusion Surgeries
performed annually in the US

[153] These data presented by Dr. Steven Woloshin at Dartmouth's Summer Institute for Informed Patient Choice, 2014



Since the mid-late 1990s, fetal oxygen sensors have become almost universally adopted in delivery rooms, despite the US Preventive Services Task Force not endorsing this technology in birthing. Fetal oxygen sensors identify stress on the fetus' heart and can lead to emergency C-sections. That's one of potentially many reasons for our increased rate of C-section deliveries since the mid-1990s.

Rate of C-sections
as percentage of all US births



Many more examples exist. But to summarize: Doctors face different financial, corporate and emotional pressures and incentives from the patients they advise. Here are some of those differences:

Physician Issues and Concerns	Patient Issues and Concerns
Success	Success
Fear of lawsuit	Pain
Fear of feeling guilty	Recovery process
Local / regional / hospital norms	Infection / readmission risk
Income and time constraints	Impact on family
Personal preferences (religion, experience, etc)	Personal preferences (religion, personal image, etc)

Asking ‘Doc, what would you do if you were me?’ tends to get answers from the Physician List, while patients worry about issues on the Patient List.

Doctors may also have different goals and risk tolerances from patients. Research suggests, for example, that 72% of oncologists advising early stage breast cancer patients rate ‘keeping your breast‘ a top goal while only 7% of patients do.

Meanwhile, 0% of oncologists rate ‘avoid using prostheses’ highly while 33% of patients do. [154]

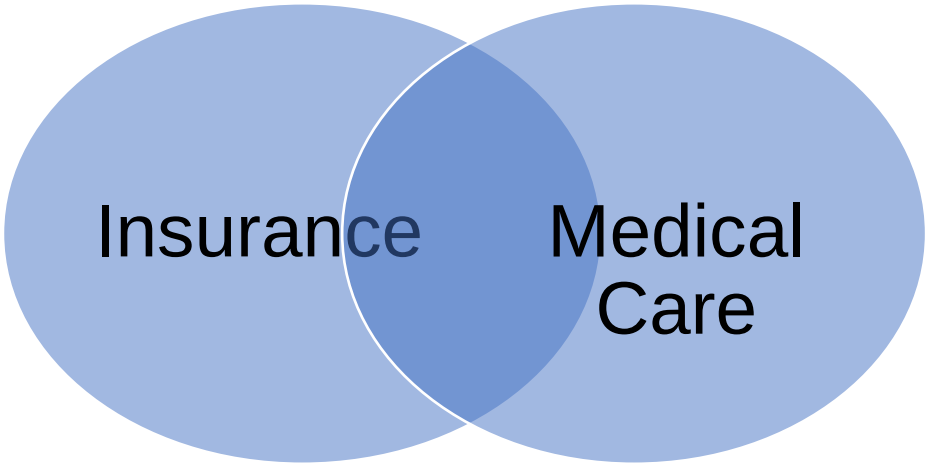
We have learned, over the past few decades, that leaving medical education entirely to physicians - even with a bit of online research - has led to healthcare inflation at approximately gdp + 3 to 5% with, unfortunately, poorer national statistics than other countries that spend less on medical care.

Splitting healthcare financing from healthcare delivery has been proven inefficient. It’s time to reconsider the Old School model.

New School: Integrating Finance and Care Delivery

Rather than continue with the ineffective Old School model, let’s introduce a New School approach.

[154] Data from presentation by Benjamin Moulton at Dartmouth’s 2014 Summer Institute for Informed Patient Choice



In the New School, financing and medical care overlap.

- Doctors understand networks, deductibles, plan designs and prices and *include them in treatment prescriptions.*
- Brokers understand medical terms, preference-sensitive decision making, outcome metrics, treatment intensity issues and *include them in plan designs*.

To do this, brokers need to understand and communicate 3 fundamental concepts to their subscribers:

- **Outcomes**, meaning how well does a medical intervention work. Brokers who help their clients focus on medical outcomes will help them avoid unnecessary medical care and choose higher quality care over lower.

  The best way to determine outcomes is from studies comparing patients who had a specific medical intervention with patients who did not. Other attempts to quantify outcomes are less robust, provide less good information and can lead to suboptimal medical decisions.

  We too often in this country, use proxies for outcomes. Proxies include ‘famous hospital’, ‘well known surgeon’, ‘well advertised medication’, or ‘game changing therapy’. Proxies may or may not correlate closely to actual patient outcomes.

  The important point for brokers to communicate to their clients: shop for medical care based on outcomes. They’ll enjoy better outcomes that way.

- **Process**, meaning *how* providers implement a particular treatment.

  Extensive evidence shows that some hospitals favor C-sections in situations that other hospitals do not, and that doctors in some regions routinely treat early stage breast cancer with mastectomies while doctors in others routinely prescribe other treatments. The Dartmouth Atlas of Healthcare has tracked these differences at hospital, regional and state levels for years.

One simple tool for brokers here: advise patients to ask their physician 'am I in a high or low intensity region / hospital for this procedure?' They can use that information when they obtain a second opinion.

- **Preference-sensitive**, meaning that two patients with similar diagnoses and prognoses may choose different treatments *and both be right*.

  This is, perhaps, the single most important issue in American medicine. Scholars ranging from Harvard Business School's Regina Herzlinger to Dartmouth's John Wennberg suggest that patients enjoy the best outcomes, often at the lowest costs, when they make well informed decisions. 'Well informed' means knowing the likely treatment outcomes (both benefits and risks), their process options (mastectomy or lumpectomy for example) and the prices.

  Laura Landro, writing in the Wall Street Journal, summarized the impact: [155]

  Studies show that when patients understand their choices and share in the decision making process with their doctors, they tend to choose less-invasive and less expensive treatments than they would otherwise have received.

The broker's educational role in this New School paradigm is to inform patients that they have choices and help them access key information to make wise choices; it is **not** to give specific medical advice.

My Proposed Decision Making Tree
that integrates clinical and insurance information

Brokers and benefits advisors can teach people to use this Decision Tree. It can organize your thinking and ensure that you address the key issues in making your medical decisions.

First identify the most likely benefits and risks of a particular medical intervention and the chance of each. Ask 'do the likely benefits of this medical intervention outweigh both the treatment risks and doing nothing?'

I you answer 'no, the likely benefits do not exceed the risks and are not better than doing nothing' then stop.

But if you decide that the likely benefits exceed the risks, continue.

Second identify your intervention options. You almost always have them. You can have surgery or physical therapy for example, take a brand name medication or generic, have an injection or take a medication, change your diet or take a pill.

[155] Laura Landro, Weighty Choices in Patient's Hands, Wall Street Journal, August 4, 2009

Decide which process you prefer. Research shows that different processes often generate similar outcomes. There's often no objectively right or wrong process decision. Rather these are personal choices or preference-sensitive decisions.

Third decide which provider generates the best outcomes using the treatment process you prefer. Some orthopedic surgeons may generate better spinal fusion surgical outcomes than others; some physical therapists better knee pain reductions.

Provider outcomes often – though not always – correlate with experience. The more shoulder surgeries a surgeon performs, the better his/her shoulder surgery patients tend to do.

If you can't determine actual outcomes by physician, use volume or experience with patients like you as a responsible proxy. Though not perfect, it can lead you in a positive direction.

Fourth, if two providers generate the same outcomes using the process you prefer, consider price.

Be sure to consider price 4th, only after you've determined that an intervention is likely beneficial, that you're getting the process you prefer and that you've chosen the best provider available.

Follow this 4-step process and you'll likely end up with better outcomes, be more satisfied with your care and perhaps even save some money along the way.

America's research community is developing tools to help patients with these tasks.

The Affordable Care Act on Decision Aids and Shared Decision Making

Section 3506 of the Affordable Care Act or Obamacare addresses Decision Aids and the Shared Decision Making process. The goal is to engage patients in *informed* decision making with healthcare providers.

Decision Aids are **tools** that present clinical evidence of risks and benefits of treatment options; they focus on likely outcomes. Decision Aids are not simply articles describing how a medical treatment works but without quantifying likely benefits and harms; that's an encyclopedia, not an Aid.

Shared Decision Making, on the other hand, is a **process** in which patients and their physicians decide together how to proceed. Unlike the old school paternalist model in which physicians *tell* patients which treatment to have, in the Shared Decision Making model physicians *help patients decide* which treatment option best suits their goals.

Shared Decision Making acknowledges that about 85% of medical decisions are 'preference sensitive', meaning the patient has more than 1 reasonable option and that two different patients suffering from the same medical condition can make different treatment decisions but both be right.

This may seem intuitively obvious to many. Unfortunately, research shows that physicians only discuss alternatives with patients about 14% of the time, and only about 9% of physicians inform patients that they have choices. [156] As a result, the impetus to inform patients that options exist most of the time may fall on the insurance community.

Decision Aids and Shared Decision Making also implicitly acknowledge a new vision of the physician's role. The ideal modern physician, suggests Dr. Atul Gawande of Harvard Medical School insightfully

> should be neither paternalistic nor informative but rather interpretive, helping patients determine their priorities and achieve them. [157]

This means patients need to learn basic outcome and intensity information outside the doctor-patient framework and opens a new, and potentially role redefining opportunity for brokers and carriers.

A Decision Aid Example

Decision Aids, currently under development at several medical schools and institutions, provide outcome data quantifying risks and benefits of medical interventions.

Consider the Number Needed to Treat. This tells how many people need to take a medication, have a test or have a treatment for 1 person to benefit from it.

The NNT acknowledges that medicine doesn't work perfectly, equally well on all people, all the time. But various interventions work - to paraphrase Abraham Lincoln - on some of the people, some of the time. The NNT tells how often, so how likely you are to benefit from a particular intervention.

The most comprehensive source of NNT information is a website entitled, not surprisingly, TheNNT.com.

Here's an example: 18 adults suffering from acute sinusitis need to take a course of antibiotics for 1 to benefit by having a faster resolution of symptoms. [158] The Number Needed to Treat for adults with sinusitis to benefit from antibiotics is 18.

Another example: 5 kids suffering from the croup need to take steroids for 1 to enjoy respiratory improvement. The NNT here is 5.

Some more NNT examples [159]

---

[156] Benjamin Moulton, op. cit.

[157] Sheri Fink's review of Atul Gawande's Being Mortal, New York Times Book Review, November 6, 2014

[158] http://www.thennt.com/nnt/antibiotics-for-clinically-diagnosed-acute-sinusitis/

[159] This chart appeared in BusinessWeek, January 2008.

THE NUMBER NEEDED TO TREAT

How well do drugs work? Ads and news stories usually say that a medicine slashes the risk of, say, heart attacks by a big number, like 50%. But that often overstates the benefit, because it fails to provide the absolute risk. If only 2 people in a group of 100 are expected to have a heart attack, then a drug that cuts the rate by 50% prevents just 1 heart attack when taken by all 100 people. That's why researchers favor using the "number needed to treat" (NNT). It shows how many people must take a drug for one person to benefit.

DRUG	NNT	DETAILS
Antibiotic cocktail to eradicate ulcer-causing stomach bacteria (H. pylori)	1.1 to eradicate bacteria	Bacteria will be eradicated in 10 of 11 people with 6 to 10 weeks of treatment.
Antibiotic cocktail to eradicate ulcer-causing stomach bacteria (H. pylori)	5 to heal ulcers	Ulcers in 1 in 5 people will heal by the end of treatment. One in two will be cured in a year.
Lipitor and other cholesterol-lowering statins, when used in people who have had a heart attack or have signs of heart disease	16-23 to prevent one heart attack	In clinical trials, with 5 years of treatment, 1 in 16-23 people is spared a coronary event. To prevent an actual death, the NNT is 48.
Lipitor and other cholesterol-lowering statins, when used in patients without heart disease, but who have risk factors like high blood pressure	70-250 to prevent one heart attack or stroke	Benefits with 5 years of treatment are smaller in those without existing disease, and the NNT increases with lower initial risk.
Lipitor and other cholesterol-lowering statins, when used in patients without heart disease, but who have risk factors such as high blood pressure	500+ to prevent death or serious medical conditions	In clinical trials, there was no significant reduction in deaths or serious events, so a precise NNT can't be calculated.
Avandia, which controls blood sugar	1,000+ to prevent heart attacks, other effects of diabetes	The drug reduces blood sugar, but that does not translate into fewer problems, such as kidney failure, nerve damage, amputations.
Zetia, which lowers cholesterol	1,000+ to prevent heart disease	Companies admit that it has not been shown to reduce heart disease or heart attacks.

Data: Bandolier, Therapeutics Initiative, *BusinessWeek*

Knowing the NNT can help patients in two different ways:

- First, patients can decide if a medical intervention works well enough to have. An NNT of 300, for example, make work so poorly – in your opinion – that it's not worth having.

  But an NNT of 2 works so well that you may decide to have this treatment.

- Second, the NNT helps patients decide which intervention works better. The lower the Number Needed to Treat, the better the medication intervention works.

How to determine the Number Needed to Treat

Researchers compare two similar groups of people, as alike as possible, except that one group gets the medication while the other does not. This comparison study identifies the medication as the independent variable. Researchers then note the outcomes from both groups and quantify the medication's impact.

That helps explain why the NNT numbers above seem so high: most adults recover from sinusitis and most kids recover from croup even without medication.

TheNNT.com lists dozens of medical interventions.

A second type of Decision Aid

ChoosingWisely, an initiative of the American Board of Internal Medicine Foundation, invited dozens of specialty medical associations to list *5 Things Patients and Doctors Should Question*. The ABIM Foundation then posted these lists on a website called ChoosingWisely.

Here are 3 examples from the hundreds listed:

- *Don't do imaging for low back pain within the first six weeks, unless red flags are present*, a recommendation of the American Academy of Family Physicians.

  The Family Physician Academy's justification: Imaging of the lower spine before six weeks does not improve outcomes

- *Don't indiscriminately prescribe antibiotics for uncomplicated rhinosinusitis*, a recommendation of the American Academy of Allergy, Asthma & Immunology.

  The Allergy, Asthma & Immunology Academy's justification: Viral infections cause the majority of acute rhinosinusitis and only 0.5 percent to 2 percent progress to bacterial infections.

  Most acute rhinosinusitis resolves without treatment in two weeks.

- *Don't perform annual stress cardiac imaging as part of routine follow-up in asymptomatic patients*, a recommendation of the American College of Cardiology.

  The College's justification: Performing stress cardiac imaging or advanced non-invasive imaging in patients without symptoms on a serial or scheduled pattern (e.g., every one to two years or at a heart procedure anniversary) rarely results in any meaningful change in patient management. This practice may, in fact, lead to unnecessary invasive procedures.

As of January, 2015, some 63 medical associations participated in the ChoosingWisely campaign, posting more than 300 treatment recommendations.

Other Decision Aids exist and are being developed all the time.

Decision Aids help focus doctor-patient discussions. No longer need patients argue about anatomy and physiology. Instead, doctors and patients can interpret Decision Aids together and discuss treatment outcomes and processes – far more fruitful discussions.

Decision Aids: necessary for Shared Decision Making

The Decision Aids listed above – and others - are a necessary step toward true patient involvement in medical decisions. 'Involvement' is sometimes called 'Shared Decision Making' in which patients and doctors together decide how to proceed.

Decision Aids are tools; Shared Decision Making is a process. Both work together.

How impactful are Decision Aids and Shared Decision Making?

Research presented at the Dartmouth Summer Institute for Informed Patient Choice, Hanover New Hampshire, June 2014 shows the following:

- Patients with stable coronary angina who used Decision Aids and engaged in Shared Decision Making with their physicians, were 20% less likely to choose stent insertion than patient who did not so engage
    - Absent Decision Aids, 88% of patients thought stents would help them
- Patients suffering from hip or knee arthritis were 25% less likely to choose hip or knee replacement after viewing Decision Aids
- Back pain patients with herniated disks opted for spinal fusion surgery30% less frequently
- Men diagnosed with early stage prostate cancer were 50% more likely to choose 'watchful waiting' than more invasive treatments.

Using Deductibles and HRAs with Decision Aids

The broker can now evolve from CHD version 1, deductibles with some tax benefits, to CDH version 2, deductibles that can incorporate consumer education into a true employee engagement / benefits program.

To move successfully from CDH 1 to CDH 2, brokers need to incorporate three components into their programs:

- Content
- An employee communication program, and
- Plan design incentives

Let's brainstorm, first with a radiology education program:

Consumer Engagement Example: Radiology

Incentive: $25 per employee to complete the following educational module. Then, $50 toward the out-of-pocket costs if an employee decides to have a back MRI.

Module content: Low back pain is the fifth most common reason for physician visits. This brief tutorial can help you *benefit* from your physician visit and *avoid unnecessary costs and medical harms.*

Medical research shows that getting an X-ray, CT scan or MRI shortly after the pain begins rarely helps since most people feel better in a month or so with or without the scans.

But imaging raises costs and risks of unnecessary care:

- Lower back MRIs cost about $1000
- CT scans about $1200
- X Rays about $250

One study found that back-pain sufferers who had an MRI in the first month were *eight times more likely* to have surgery, and had a *five-fold* increase in medical expenses—but didn't recover faster.

The excess imaging problem is that people both with and without back pain can show similar imaging results, meaning an identified abnormality in the test may not be the cause of your pain.

Once identified however, abnormalities need further evaluation. This can subject patients to costs and treatments which are often unnecessary since they don't speed recovery.

Review Questions:

1. How common are visits to the doctor due to back pain?
    - Uncommon
    - Very common. Back pain is the 5th most common reason for physician visits
2. If you have back pain, should you automatically, immediately get an imaging exam, like an MRI, CT scan or X-ray?
    - Yes, as soon as you feel any kind of back pain
    - Maybe not, since people who have imaging tests don't seem to get better medical results than people who wait before having the test
3. About how much does a lower back MRI cost?
    - About $20, my radiology co-payment,
    - About $1000 on average

Content continues: Some medical organizations recommend *against* imaging tests for back pain within the first month.

The American Academy of Family Physicians, representing 105,000 primary care physicians advises:

- Don't do imaging for low back pain within the first six weeks, unless red flags are present.

- Imaging of the lower spine before six weeks does not improve outcomes, but does increase costs.

The North American Spine Society, representing 7500 doctors, advises:

- Don't have advanced imaging (e.g., MRI) of the spine within the first six weeks for non-specific acute low back pain in the absence of red flags.
- In the absence of red flags, advanced imaging within the first six weeks has not been found to improve outcomes, but does increase costs.

The American College of Physicians, representing 126,000 physicians, advises:

- Don't obtain imaging studies in patients with non-specific low back pain.
- In patients with back pain that cannot be attributed to a specific disease or spinal abnormality, imaging with X-ray, CT scan or MRI does not improve patient outcomes.

The American Society of Anesthesiologists – Pain Medicine, representing 50,000 members who advocate for patients in pain, advises:

- Imaging for low back pain in the first six weeks after pain begins should be avoided in the absence of specific clinical indications
- Most low back pain does not need imaging and *doing so may reveal incidental findings that divert attention and increase the risk of having unhelpful surgery*.

Review Questions:

1. Do many medical professional organizations recommend that you wait 4 – 6 weeks before having a back imaging test, or have the test immediately upon feeling pain?
    - Wait 4 – 6 weeks unless specific red flags are present
    - Have the test immediately
2. Why do several medical professional organizations recommend waiting 4 – 6 weeks before having an imaging test?
    - To reduce patient costs and risks
    - To harm patients

Here are some Red Flags:

- a history of cancer or unexplained weight loss,
- fever or recent infection ,
- loss of bowel or bladder control,

- abnormal reflexes or loss of muscle power or feeling in the legs.

And here are some Key Questions to ask your doctor:

- Do you agree with the recommendations from the American Academy of Family Physicians and others that I wait 6 weeks before having a scan for my back pain?
  - If not, why not?
  - Do you think those recommendations apply to me?
- Do you worry that back imaging tests may incorrectly identify the cause of my back pain?
- Do I have the red flags listed above?
- And What other therapies do you recommend?

Many more Decision Aids and Educational Modules exist

Research organizations are continuously developing Decision Aids about the major healthcare cost drivers. A short research project will identify some of these for you. That's the easy part.

The hard part is integrating the clinical information with insurance plan designs. Though difficult, it's necessary if brokers want to change the Zywave reported client satisfaction numbers:

- Creates strategic plan that aligns with company goals: **43% unsatisfied**
- Offers employee benefits and consumerism communication / education: **41% unsatisfied**
- Assists with creating or maintaining a workplace wellness program: **66% unsatisfied**

Brokers face a dilemma: whether to remain in their comfort zone which we call CDH version 1, providing spreadsheets, products and compliance services or move to CDH version 2 that integrates financial and clinical considerations into plan designs.

I encourage anyone who has read this chapter to consider: If you were a client, would you prefer a broker who engaged in traditional insurance brokerage or who integrated clinical education into plan designs?

I'd also encourage people to consider their own history: Are you satisfied with health insurance trend and utilization rates?

I suggest that if you consider these two questions, your path forward becomes clear.

Robert Frost articulated the options poetically:

Two roads diverged in a wood and I –

I took the one less traveled by,

And that made all the difference

Review Questions

Answers on next page

1. One consequence of having employer based health insurance as the central mechanism of financing medical care in this country is the development of various 'fill in' programs for non-employed people. Examples include Medicare for elderly people and the Veteran's Healthcare Administration for military veterans, each with its own eligibility requirements, access criteria and payment programs. About how many such major programs exist in the US?

a. 1
b. About 6
c. About 295
d. About 13,500

2. We have two different definitions of 'well informed consumer'. The health insurance industry defines a well informed consumer as one understanding deductibles, network restrictions, referral requirements and similar. How does the medical industry define well informed consumer?

a. The same way, someone who understands deductibles, network restrictions and referral requirements
b. As someone who understands how well medical care works
c. As someone who has read lots of books about medical care
d. As someone who uses google to research their treatments

3. Can we usefully separate healthcare *financing* from healthcare *service* provision?

a. Yes. A professional broker, for example, only need describe the insurance policy to provide a complete service to his/her customers
b. No. We cannot usefully separate healthcare financing from service delivery. Every attempt to do that has resulted in higher costs and poorer outcomes
c. Sometimes. We can usefully separate financing from service deliveries for orthopedic conditions but not for cardiovascular
d. Sometimes. We can usefully separate financing from service deliveries for acute conditions but not for chronic

4. What is the best way to determine a medical care outcome?

a. From a comparative test, one that compares a group of people who had a specific medical intervention with a similar group that did not
b. By reviewing the relevant biological information
c. By reviewing the relevant anatomical information
d. By reviewing the relevant genetic information

5. What does 'preference sensitive' mean in medical care?

a. That one patient may prefer one treatment process while another, similar patient may prefer something different and that both patients can make the right decisions
b. That some people prefer one physician while others prefer someone else
c. That some physicians prefer one type of patient while other physicians prefer a different type
d. That some patients may prefer one hospital while others prefer a different hospital

6. What is the Number Needed to Treat?

a. The number of patients who need to have a treatment for one to benefit
b. The number of doctors who need to perform a surgery for 1 to get it right
c. The number of patients a doctor needs to treat in order to have one patient benefit from his/her care
d. The number of surgeries a hospital needs to host to get optimal outcomes

7. What are Decision Aids?

a. Decision Aids are tools that present clinical evidence of risks and benefits of treatment options; they focus on likely outcomes.
b. Techniques that can aid a physician who needs to make an important decision
c. Surgical tools to help hospital residents make better use of their time
d. Computer programs that determine the optimal treatment protocol for a specific patient

8. Which, below, is NOT a credible decision aid?

a. TheNNT
b. ChoosingWisely
c. The US Preventive Services Task Force
d. Brochures developed by Pfizer, the manufacturer of Lipitor, that explain the benefits of taking statins

Review Questions

Correct answers in bold

1. One consequence of having employer based health insurance as the central mechanism of financing medical care in this country is the development of various 'fill in' programs for non-employed people. Examples include Medicare for elderly people and the Veteran's Healthcare Administration for military veterans, each with its own eligibility requirements, access criteria and payment programs. About how many such major programs exist in the US?

a. 1
b. About 6
c. About 295
d. About 13,500

2. We have two different definitions of 'well informed consumer'. The health insurance industry defines a well informed consumer as one understanding deductibles, network restrictions, referral requirements and similar. How does the medical industry define well informed consumer?

a. The same way, someone who understands deductibles, network restrictions and referral requirements
b. As someone who understands how well medical care works
c. As someone who has read lots of books about medical care
d. As someone who uses google to research their treatments

3. Can we usefully separate healthcare *financing* from healthcare *service* provision?

a. Yes. A professional broker, for example, only need describe the insurance policy to provide a complete service to his/her customers
b. No. We cannot usefully separate healthcare financing from service delivery. Every attempt to do that has resulted in higher costs and poorer outcomes
c. Sometimes. We can usefully separate financing from service deliveries for orthopedic conditions but not for cardiovascular
d. Sometimes. We can usefully separate financing from service deliveries for acute conditions but not for chronic

4. What is the best way to determine a medical care outcome?

a. From a comparative test, one that compares a group of people who had a specific medical intervention with a similar group that did not
b. By reviewing the relevant biological information
c. By reviewing the relevant anatomical information
d. By reviewing the relevant genetic information

5. What does 'preference sensitive' mean in medical care?

a. That one patient may prefer one treatment process while another, similar patient may prefer something different and that both patients can make the right decisions
b. That some people prefer one physician while others prefer someone else
c. That some physicians prefer one type of patient while other physicians prefer a different type
d. That some patients may prefer one hospital while others prefer a different hospital

6. What is the Number Needed to Treat?

a. The number of patients who need to have a treatment for one to benefit
b. The number of doctors who need to perform a surgery for 1 to get it right
c. The number of patients a doctor needs to treat in order to have one patient benefit from his/her care
d. The number of surgeries a hospital needs to host to get optimal outcomes

7. What are Decision Aids?

a. Decision Aids are tools that present clinical evidence of risks and benefits of treatment options; they focus on likely outcomes.
b. Techniques that can aid a physician who needs to make an important decision
c. Surgical tools to help hospital residents make better use of their time
d. Computer programs that determine the optimal treatment protocol for a specific patient

8. Which, below, is NOT a credible decision aid?

a. TheNNT
b. ChoosingWisely
c. The US Preventive Services Task Force
d. Brochures developed by Pfizer, the manufacturer of Lipitor, that explain the benefits of taking statins

Risk Management Overview

This chapter was originally written as the introduction to a book on the history of medical education by Andy Lazris, a primary care physician in Maryland. My thanks to Dr. Lazris for allowing me to include it here.

It was a chilly fall day in Baltimore, 1911, and Abraham Flexner was preparing for his meeting with William Welch. He meticulously parted his thinning, dark hair that sat on a long and stern face, barely cracking a smile. He slipped into his dark suit and wide tie, and then trod over to the kitchen for a cup of black coffee. He stood tall at just over six feet. He Semitic features were somewhat obscured by a bushy mustache that was curled at its edges. He wore small wire spectacles over his beady black eyes. He was neither engaging nor distant; he seemed to exist is a space all his own, and, as his friends and enemies often said, he lived within his own perception of reality. In a mere year, this former minor educator vaulted himself to fame and prominence, taking the entire medical world by storm. He understood the significance of his accomplishments and his new-found worth, and today he hoped to transform that into something that would forever alter American health care.

His hotel sat just outside the Johns Hopkins medical campus, in a well-manicured area of East Baltimore well beyond the stench of its more industrial harbor. Here there was a mix of poverty and wealth, and the Johns Hopkins Hospital, an innovative leader in medical education, had catered to both, transforming itself into the beacon of American medical excellence. Flexner himself had graduated from Hopkins many years ago with a degree in education. He obtained his diploma in just two years before moving to Indiana to establish a school. His brother, Simon, was a prominent doctor on staff, a man who had gained fame in discovering a bacterial infection that still bears his name. Now Abraham even eclipsed Simon in fame; William Welch, Johns Hopkins Hospital's president and a pathologist on staff, sought to meet with him to discuss perhaps the most significant change that the medical school, and all of American health care, would ever incur.

To Abraham Flexner, who believed in process and order, it was going to be just another day. One year earlier he had penned a comprehensive report sponsored by the Carnegie Foundation that scrutinized all of the nation's medical schools and picked winners and losers from among them. For Flexner and his allies, the report that would ultimately bear his name was the first requisite step in professionalizing and standardizing not only medical education, but the entire field of American health care. This was the culmination of work from the American Medical Association (AMA), an organization that had been fighting for half a century to gain control over the training and practice of doctors. Now with Flexner's report, the AMA, whose prior work had spurred Flexner's findings, put itself in a position to be the final arbiter regarding what a school must prove to be worthy of graduating "credentialed" physicians. Many schools did not make the cut and quickly died a natural death. Many doctors—women, blacks,

alternative practitioners, those without certified education—lost their ability to practice medicine. In an instant, because of Flexner, the entire medical landscape changed.

Flexner believed that it was about time that American health care followed the European example and adapted a rigorous scientific approach to education. And it was at Hopkins he hoped to drive in the first stake of a grand new program of reform. As he finished his single slice of toast and coffee, Abraham Flexner prepared to meet with Welch, an ally of his, and the most powerful man at Hopkins since Sir William Osler retired. Doctors Welch and Osler had personal enmity for each other and proclaimed very different visions about what health care, and specifically Johns Hopkins' mission, should encompass. One of American's premier medical institutions, Johns Hopkins stood at the forefront of the medical world, but both Welch and Flexner knew that it could be even better. With Osler gone, and with both Flexner's report and the promise of large amounts of corporate money in his back pocket, Dr. Welch now could do as he had always hoped. He would conspire today with Abraham Flexner to transform Johns Hopkins from a clinical institution that taught students how to care for patients to the nation's most prominent research facility, replacing clinical staff with full time scientists, and instituting a rigid curriculum for students that emphasized a pursuit of pure science, a curriculum (based on Flexner's recommendations) ultimately that every credentialed school would be compelled to follow, and one that largely has remained intact even today.

To exorcize the ghost of William Osler from Hopkins, Welch needed money and a template, and on this day in Baltimore, Abraham Flexner was prepared to offer him both. Now working for the Rockefeller Foundation, Flexner promised Welch with enough money to hire full-time research faculty, increase lab facilities, and institute a rigorous 4-year scientific curriculum. With Osler gone, William Welch could have his way.

Osler had established a program of clinical instruction, in which community physicians like him and his colleagues trained Hopkins students. As Osler said, "Medicine is learned by the bedside and not in the classroom. Let not your conceptions of disease come from words heard in the lecture room or read from the book. See, and then reason and compare and control. But see first." Osler not only reformed Hopkins and transformed it into a premier medical institution through his novel bedside patient-centric approach to teaching, but he did it with part-time instructors who were actual doctors and made their living by seeing patients. While he valued research and teaching, he believed that both were subservient to an education obtained in the real world by working with real patients. "He who studies medicine without books sails an uncharted sea," he said. "But he who studies medicine without patients does not go to sea at all." Osler never did any research on his own; he published books and gave lectures around the world about how to take care of patients, and how to raise a new class of physicians who would be expert in patient care. Hopkins was his grand laboratory for change.

William Welch despised Osler and sought to move Hopkins away from the community and into the lab. As a pathologist and a disciple of the scientifically-oriented German school of thought, he believed that clinical teachers were no more than greedy hacks who would sully students and prevent them from achieving medical greatness. Osler held sway at Hopkins, at least while he remained. But once he retired, his hand-picked clinical colleagues lacked the influence to maintain Osler's vision. Welch slowly drove them out, one by one, replacing them with scientists. When Flexner approached him with money and new method of education—one that Welch himself help to formulate through his position at the helm of the AMA—Welch now had the power and authority to entirely expunge Osler's stamp from Hopkins. He hired full-time faculty and fired all the clinical staff, including many of Osler's friends. Students now received their education in the class, in labs, and on the wards, not with patients in the community. They were taught by doctors who did not practice medicine but who merely read and researched it. All of this happened rapidly once Welch and Flexner shook their hands and made a deal on that chilly fall day in 1911. Hopkins was entirely transformed, and a new epoch of medical education began.

But 3500 miles west in London, Sir William Osler was fuming mad. A man known for his biting wit, his sardonic insults, and his medical genius, Osler had laid the path of modern medicine in America through his teaching and writings. Now, with Flexner's report taking root at Hopkins and elsewhere, all that he held dear was being threatened by the very man now glibly eating a piece of toast in Osler's city of Baltimore, a man who knew nothing about patients or medical care, a man prepared to exterminate all that Osler had accomplished for his profession by allying with no other than Osler's nemesis, William Welch. So, Osler wasted no time; he found his allies and used his influence to save the very field and institution to which he had devoted his life.

The struggle between Osler and Flexner set medical education and the entire health care industry on a trajectory that continues to this day. Not much has changed since the battle ended. One of the men continues to be quoted and well known, although his ideas have evaporated from our medical horizon. That is William Osler, whose books and innovations are thought to have initiated the birth of modern medicine, but whose soul was permanently shattered by the battle that commenced. The other was Abraham Flexner, a man known to very few, neither a physician nor a person with any knowledge about health care, but one whose report on medical education stamped a template upon medical care in America that we use even today. Its message is the very antithesis of what William Osler had so passionately advocated, and the changes it sparked transformed health care from a field devoted to the patient, as Osler so desperately endorsed, to one devoted to science alone and to the corporate foundations that funded scientific pursuits. And when we look at the proliferation of low value medical care today, at the trillion dollars of health care money that is squandered every year on medical interventions that help no one, at the generic medical school curriculum that emphasizes rote memorization and irrelevant sciences instead of critical thinking and patient-centered care, we owe all of that to Flexner. Osler's vision was just the

opposite of what we have today. And upon Osler's ashes, the medical system took a jagged turn and went far off course.

Medical care in America sat on a precarious spire through the latter part of the nineteenth century. Most medical schools were diploma mills with few standards, and those who could pay were able to obtain a degree. Hundreds of such schools were scattered across the country, producing far too many doctors as was necessary. (B12) Educated people typically eschewed the medical field; a survey in 1851 showed that from top colleges 26% of students became clergymen and lawyers, and only 8% became doctors. The salaries were low and the competition for patients fierce, a situation that remained in tact at least until 1900. (G82-4) The result were poorly trained doctors who held no mastery of their skills. A popular book in the 1880's, *The Physician Himself*, by DW Catheell, encouraged doctors to be more concerned with showing an image of competence rather than actually being competent. According to Paul Starr, "Cathell's guide reflects the exceptional insecurity of the 19th center doctors, their complete dependence on their clients, and their vulnerability to competition from laymen as well as colleagues." (g86-8)

In many ways to counter the beleaguered state of health care, a group of physicians in 1846 started a small organization called the American Medical Association (AMA). Meeting in New York, these doctors orchestrated a national organization whose goals were to raise and standardized medical degrees with the aim of improving the caliber of practice, decreasing the physician pool, and increasing doctor salaries. Throughout the century, the AMA met only once a year and remained small, exerting most of its influence on state medical societies. By accommodating with other forms of medical practitioners, especially homeopaths and eclectics, and by becoming a confederation of local medical societies instead of a top-down voice of change, the AMA gained members and influence. It also consolidated medical licensing state by state, (G90-112) setting standards by which physicians would be required to practice. This went a long way toward creating a set of licensed doctors would could now distinguish themselves from the mass of untrained practitioners dotting American's medical landscape.

The AMA's rise was not beneficial for all physicians, nor necessarily for patients. African-American doctors, unwelcome in many local medical societies, became marginalized, unable to obtain credentials. Similarly, women and doctors who practiced non-orthodox medical care, such as chiropractors, were excluded from those able to be credentialed. At this juncture, the AMA never elucidated a vision of health care that encompassed science and patient-centered care as the core of a viable medical system; its concrete objectives were much more nuanced and vague. It essentially was more a trade association that imposed laws and restrictions that were favorable to its members. Only in 1900 did it begin to see the advantage of "touting itself as a promotor of scientific education" to advance its agenda. (H2-3) In fact, even as late as 1906, the AMA promoted a pharmaceutical policy that on the surface sought to remove

sham drugs from the market, but in reality promoted a regulatory system to “withhold information from consumers and re-channel drug purchasing through physicians.” (G129-32) The ultimate intent of the AMA was not necessarily to improve the drug market, but to make sure that doctors have control over it, so as to increase the power of physicians in health care delivery.

But one ingredient was essential for the AMA and its licensed physician members to improve their status: better control of medical education. And that is the crux of the Flexner – Osler conflict. As long as medical schools remained unregulated, as long as they could proliferate without any rules or standardization, as long as diploma mills and substandard schools could produce large numbers of poor physicians, then American doctors could not achieve the status, money, and exclusiveness that the AMA sought. And as long as the AMA did not directly control the apparatus of medical education, then the less its influence would be over the health care delivery system. The AMA sought to cultivate a landscape with fewer schools training fewer doctors that were directly controlled by the AMA’s regulatory system. To that end, in 1904 the AMA established a council of medical education, formulating minimal standards that should be implemented in all medical schools. In 1906 it inspected all 160 medical schools and made judgments about which ones (82 in all) met minimal standards. But it kept its findings secret, fearful that any judgment it imposed on medical schools would be viewed as being self-serving, (G11-18) which of course it was.

To appear more objective, the AMA commissioned the Carnegie Foundation essentially to repeat its survey of medical schools and render an opinion about which schools met standards, so as to get “independent and presumably disinterested support for its efforts.” (B73) By 1908, when the AMA sanctioned this second survey, medical education had already been improving on its own, primarily due to state regulations and also the high cost of providing of running a school. The 450 schools training doctors in the late 1800’s had already been whittled down to 150. Many schools were already undergoing reforms to improve themselves. Many other schools remained marginal; they did not have any lab equipment or hospital affiliations, some even had sparse curricula and were situated in one room homes. 60% of schools did not have requirements for admission, only an eighth of the schools required two years of colleges, and many remained for-profit institutions. (B70-1) The Carnegie Foundation, led by Henry Pritchett, had similar concerns about medical education as the AMA, so their collaboration made sense. (B 73)

Many in the Carnegie Foundation touted the German model of medical education as a good template upon which any recommendations should be made. German schools utilized a hard science curriculum; students were well versed in chemistry, physics, biology, and math, and this provided the crux of their education. Labs and classroom work constituted requisite ingredients of education; clinical experience was far less important. The goal was to develop a very rigid science-based curriculum that would be the same in every American medical school without variation, emphasizing lab science,

qualifiable data, and a view of disease as a scientific entity that was not patient-specific. (I598) To orchestrate and implement the survey, Pritchett chose Abraham Flexner, an unknown former educator, a man with no medical training or background, but someone who adhered to the German model. Flexner also had a famous physician brother at Johns Hopkins, and the Carnegie Foundation had very close ties to that school and its president, William Welch. Welch, a pathologist, had transferred Hopkins into a living example of the model medical school that Carnegie and the AMA espoused.

But why Flexner? Why not a medical doctor or someone privier to the controversies in medical education? Or even someone who had set foot in a medical school? According to one source, Pritchett's hiring of Flexner was "one of the strangest appointments in education history." But Pritchett was counting on the AMA to lead the actual effort, with Flexner being more of a figurehead who followed the AMA roadmap. (B68) But Flexner was not a type of man who liked to be directed. As someone who had lived in Germany, who graduated from Hopkins, and who had experience in education, he had very established ideas about what he hoped to achieve with his survey. He made very profound decisions about many schools by only spending a few hours studying them. After consulting with doctors from Hopkins and others in the AMA, his report would do more than just set standards for medical schools; it would profoundly alter the very foundation of American medical education and practice, a legacy we will live with today, over 100 years later.

Who was Abraham Flexner? Born in Louisville, Kentucky in 1866 he was a son of Jewish German immigrants. He received a Bachelor of Arts at Johns Hopkins after only two years. He moved back to Kentucky where he founded an experimental school based on the German model, a school that ultimately failed. He met his wife, Annie Crawford, a former student in his school, and she ultimately became a successful Broadway playwright, bringing the couple to New York. Buoyed by her income, he then studied psychology both at Harvard and at the University of Berlin, never receiving a degree. While in Germany he was influenced by Fredrich Paulsen, a leader of the German school system, who believed that American education was not sufficiently serious and fact driven. Like German physician Fredrich von Mullen, from whom Flexner also learned, Paulsen advocated a stringent gymnasium system of learning whereby teachers taught students through a very formulaic and scientific fact-based curriculum. (B59, 91) After returning to New York, Flexner landed a job with the Carnegie Foundation through his brother Simon, a medical researcher at Hopkins and a good friend of Henry Pritchett's. (A63, B63)

The President of Johns Hopkins medical school, William Welch, a pathologist who also adhered to the German school of education, happened to be the president of the AMA at this time. Welch and Simon Flexner were good friends, and Welch was also connected to the Carnegie Foundation and supported its proposed survey of medical schools. Welch had co-authored the AMA's report on medical education in 1907 with Simon Flexner, a report many people think that Abraham Flexner's report is based.

Welch believed in a rationalistic and scientific view of medical education: if students can master science, they can figure out a patient's diagnosis and treatment without necessarily seeing or speaking with the patient. They just need data. Welch felt that medicine was a branch of pathophysiology, the science of studying the human body's operating system. He also insisted that all doctors, and all teachers, needed to be proficient in lab science rather than clinical skills; the vector of treatment for Welch ran from the lab to the bedside. In other words, doctors need only understand science and engage in research, and they will then be able to diagnose and treat diseases. (I599) As a corollary, Welch was adamant that all medical educators should be full time lab faculty; the clinical faculty (those who actually practiced medicine) were too busy and not sufficiently qualified to teach, he said. (K1860)

Abraham Flexner attacked tasks with purpose and an unbending agenda. Although often funny, and a person who enjoyed teasing colleagues, he also could be brutal and one-sided. He was known to be verbally abusive, scornful of compromise, self-centered, and only receptive to ideas and suggestions that mirrored his pre-conceived notions. (B2,3). Said one source, "Flexner did not tempter his language to please readers—a quality that was to become typical of Flexner's style. He was as tenacious as a bulldog in holding to his positions." (D64-5). And what were his positions regarding the report he was charged to write? Clearly, Flexner derived many of opinions from the people at Hopkins and the AMA with whom he conversed, people like Welch and his own brother, who believed that research and science must be the bedrocks of all medical schools, that faculty must be research based and full time, that schools needed to have a uniform science-based curricula, and that AMA would henceforth regulate medical schools and its graduates to ensure compliance with very strict, unwavering regulations. In other words, his report would match his own personality, and reflect the German-focused vision of William Welch and the program he had constructed at Johns Hopkins. In fact, Hopkins became Flexner's model school.

Flexner felt that two-thirds of the schools were hopeless and should not be allowed to survive, and that most of the others needed significant reform. All but two African-American schools were told to shut down, and the remaining two were expected to train black "practitioners" whose main job was to care for the black community and assure that they don't spread disease to whites. Said Flexner, "The practice of the Negro doctor will be limited to his own race, which in its turn will be cared for better by good Negro physicians than by poor white ones. But the physical well-being of the Negro is not only of moment to the Negro himself. Ten million of them live in close contact with sixty million whites. Not only does the Negro himself suffer from hookworm and tuberculosis; he communicates them to his white neighbors…. The Negro must be educated not only for his sake, but for ours. He is, as far as the human eye can see, a permanent factor in the nation" (Flexner report) Similarly, all schools that trained women, and all that trained alternative doctors, were eradicated by Flexner's report. Those schools deemed salvageable all were primarily white institutions with close ties to the AMA. If they complied with the report's recommendations regarding curricular,

structural, and faculty reform, then they would be accredited by the AMA's Association of American Medical Colleges, be eligible for philanthropic funding from groups like Carnegie and Rockefeller to help defray full-time faculty and structural cost, and look to Hopkins as a model of how to succeed. (H2)

The report was front page news across the country. The New York Times headline stated that most medical schools were "Factories for the making of Ignorant Doctors," lauding the Carnegie Foundation for uncovering the basest features of medical education and practice in the United States. (B69) No organization or newspaper said much about Flexner or his motivations, linked the report to Hopkins or the AMA, or questioned the report's conclusions. The report, it was believed, represented a milestone in American medical care, a turning point whereby the health care delivery system in this country would be purged of its most corrupt and loathsome elements. The response was fairly uniform adulation.

The focus of the report, and the model of what a reconstructed American health care system would look like, could be found at Johns Hopkins. Medical schools now looked to Baltimore for guidance, to William Welch, and to the German model. All doctors henceforth trained and credentialed in America would be scientifically oriented and experts in research. They would be taught by full time researchers, not clinicians who saw patients. And they would follow a science-based pre-medical and medical curriculum uniform in structure. But in reality, a purely scientific bent to medical education did not reflect the reality of Johns Hopkins. Hopkins was much bigger and broader than how Flexner portrayed it, mostly because of the tremendous presence of William Osler, the most respected and well-known doctor in America, who now was knighted and retired in England. His legacy was the blood and soul of Hopkins Medical School.

"It is much more important to know what sort of a patient has a disease than what sort of disease a patient has," said William Osler as he and his contingent of practicing physicians taught the medical students of Johns Hopkins through the late 1800's. "Listen to your patient, he is telling you the diagnosis." To Osler and the clinicians of Hopkins, the vector of education ran from the patient to the lab; students learned from seeing and working with patients, not from research or lectures, and then brought that information back to the scientific theater. Teachers needed to be practicing physicians, and students needed to learn at the bedside. Osler believed in the very opposite ideals of his nemesis William Welch and of the German school. And until his retirement, Osler's word was law at Hopkins.

William Osler was born in Ontario, Canada in 1849. After graduating from medical school in Canada, and working at McGill, he was recruited in 1889 the be the lead physician at the new Johns Hopkins Hospital in Baltimore, and in 1893 he helped create and lead the new Johns Hopkins Medical School. He essentially created the school from scratch, designing a curriculum based on his primary dictate: that students learn

only through immersion in direct patient care. To that end he eschewed a focus on science and the lab, and he hired as instructors practicing physicians in Baltimore. From the day they entered the school, students interacted with patients, an act that became their only forum of learning in the third and fourth year. To further their clinical proficiency, Osler invented the residence, whereby after graduating from medical school, new doctors would essentially take apprenticeships for several years before going off to practice on their own.

While men like William Welch did expose students to lectures and lab work, this was not the focus of Hopkins. Said Osler, "I cannot imagine anything more subversive to the highest ideal of clinical school than to hand over young men who are to be our best practitioners to a group of teachers who are ex officio out of touch with the conditions under which these young men will live…" To Osler, researchers and scientists should not teach medical students; this, after all, was the very lifeblood of Hopkins' Zeitgeist. (C387-9) The thrust of Osler's educational focus was to emphasize problem-solving and critical thinking skills, and the evaluation of medical information through directive observation of and interaction with real people, whose problems not only were medical but were socio-economic and cultural as well. He specifically rejected the "inculcation of facts through rote memorization" and the assumption that one could apply scientific dogma to patients without knowing the patient first. (F6-8)

When Osler left Hopkins in 1905 he was not only the primary driver of Hopkins' medical educational philosophy that vaulted the new school to the very pinnacle of American medical institutions, but he was also a national celebrity, having authored the widely read *The Principles and Practice of Medicine* and given lectures all over the country. He retired to England and left the cherished institution he created to his many clinical colleagues and friends.

But to William Welch and the scientists at Hopkins, a different type of school was needed to push Hopkins into the new age of medical education, one based on science, one in which full-time researchers and scientists taught students, and one in which practicing physicians (who men like Welch felt were greedy and contemptuous for earning money by seeing patients) were absent from the faculty. Welch was a powerful man, he was President of the AMA, he helped to write the first national review of medical schools, he had connections at the Carnegie Foundation. And he helped Flexner turn Hopkins away from a clinical institution to one that was inexorably married to hard science, research, and an inflexible curriculum based on the German school of thought.

By painting Hopkins as his model school, Flexner was in fact looking at a Hopkins that existed not in the realm of reality, not in the blueprint of its founder and primary architect, but rather through the stilted lens of non-clinical researchers like Welch, who sought to increase their power and influence now that Osler had slipped away. That Hopkins was the type of school that Flexner revered is a great absurdity; in many ways

it was the very anthesis of the rigid science-based bastion of learning that Flexner sought to promote in his report. But by painting the school using brushes and canvas supplied by Welch, Flexner in essence altered the very heart of Hopkins by making it comply with what he believed it already was.

From his perch in England, Osler did not stay subdued for long. Known for his fiery personality and pointed wit, he immediately conferred with his clinically-minded friends still at Hopkins, many of whom were being threatened by Welch with dismissal and demotion. Osler rejected Flexner's conclusions, believing that researchers should be in research institutions and not medical schools because they were poor teachers and they lacked the ability to enable students to learn how to practice medicine and interact with patients. (I600) He read the report "as a brutal and ignorant attack on his staff, his principles, and his sense of professionalism." Osler did not understand how faculty could be composed of anyone other than physicians actively practicing the art of medicine. "We chance the sacrifice of something that is really vital, the existence of a great clinical school organically united with the profession and the public," he said. He believed that the report will "likely spell ruin to the type of school I have always said should be and which we have tried to make it…," a place of refuge for the poor, a place where the best that is known is taught to the best students, where "men are encouraged to base their art upon the science of medicine…." Stating that Flexner had a "very feeble grasp of the clinical situation at Johns Hopkins Hospital" and that the institution was "more brilliant from the clinical side than the laboratory side," he felt that the report would diminish the educational experience of its students drastically. "The danger would be of the evolution throughout the country of a set of clinical prigs, the boundary of whose horizon would be the laboratory, and whose only human interest was research, forgetful of the wider claims of a clinical professor as a trainer of the young…." (C385-88)

Osler and others fought back as best they could. He wrote to Welch and to his clinical colleagues, asking them to repudiate the report, and not move Hopkins and the entire medical educational establishment in a direction he knew to be deleterious to the field. At Harvard, Francis Peabody, another clinician who was trying to inculcate medical education with real-life experiences, similarly assailed the Flexner report. Peabody who famously stated that "The secret of the care of the patient is in caring for the patient," (F20) felt that Flexner's approach "weakened the soul of the clinic." He, like Osler, sought a less rigid and lab-based means of teaching students how to practice medical science that focused on actual patient care rather than theoretical scientific theories that may not apply to the individual patient for whom they were caring. (B15) They both believed that Flexner's report "fossilized medical education into following a standardized format" that moved so far away from patients as to be useless in training competent physicians. (H3). Said one author: "Osler and Peabody recognized the danger of reducing the patient to simply a pathophysiology characterized by laboratory tests" while fearing that such a parochial focus blinds doctors from "the broader contextual issues that so often play a crucial function in disease." (I600-1)

But there were larger forces afloat than merely a few men who fought over medicine's direction. Despite the experience, status, and wisdom of men like Osler and Peabody, their words evaporated in the report's wave of acclamation. In fact, although Flexner's report did reflect what he and others believed to be the most logical path upon which the American medical system needed to tread, replacing corruption and incompetence with the scientific rigor of the German school of thought, the report was also a tool used by others to achieve a very specific agenda. Not only did the AMA gain power and notoriety by now grabbing the reigns of American medical education and licensing, but other corporate philanthropic groups like the Carnegie Foundation, who sponsored Flexner's study, and the Rockefeller Foundation, where Flexner worked for much of his subsequent life, had carefully crafted the report to create an American medial system that met their needs and expectations.

For the next 15years of his life, Flexner worked in the Rockefeller Foundation general education board, dictating which schools would receive foundation money and which would not. During that time, he approved the donation of half a billion dollars to schools that met all the rigid criteria of his report and in the process "profoundly altered the medical education landscape;" the schools that did not follow Flexner's script received no money and could not afford to stay afloat, (B1) failing too to be granted requisite accreditation by the AMA. As one author states, "Money was power, and contributors to medical education knew that." (F12)

What was the agenda of groups like the Rockefeller foundation, and why did they buy into Flexner's model? Essentially, their hope was to create great bastions of medical research, whereby American medical institutions could engage in scientific study that matched that of Europe and created breakthroughs that would advance the medical industry and, undoubtedly, generate financial gain for the foundations and their parent corporations. These foundations had very specific agendas for the many schools they sponsored, and their donations were tied to the realization of those agendas, which typically required moving the schools from a clinical direction to one that was purely scientific and lab-based. (F12) Schools had to eliminate clinical faculty, hire full-time science based faculty, emphasize basic science research in their teaching, and adhere to the very rigid science-based curriculum that Flexner laid out in his report. This instigated bitter struggles between old line clinical teachers like Osler who used to have clout, and the newer research scientists who were now taking over. Full time faculty could only exist if the schools were subsidized, and these large foundations were happy to pay the schools so long as the schools adhered to their rules. (B21-3)

As the tide of funding and accreditation became clear in the years after Flexner, most schools accommodated to the new reality. As clinical professors disappeared from these schools, full-time researchers took their place. The foundation leaders—who were in fact agents of the large corporations who funneled money to them—then dictated to these schools the forms of research they desired. Hence began a cycle in American medicine in which clinical skills fell prey to basic science, and in which

corporate entities dictated the direction of medical education and medical practice. "Whether their motives were shrewd business instincts or noblesse oblique, the influence of these industrialists and financers was profound, some would say pernicious." (B19) Within years, the clinical institution that Osler always envisioned, ones in which patients and clinicians taught students, and in which students would leave the school with both a scientific and humanistic knowledge of disease and treatment, completely vanished from the medical landscape. Osler's name remained well-known and respected, but Flexner's ideas won the day. All this occurred because the corporate boards gained enough power to impact the direction American medicine would flow. "Though the board represented itself as a purely neutral force responding to the dictates of science and the wishes of the medical schools, its staff actively sought to impose a model of medical education more closely wedded to research than to medical practice. These policies determined not so much which institutions would survive as which would dominate, how they would be run, and what ideals would prevail." (B121)

On that chilly day in 1911, when a well groomed and stern-faced Abraham Flexner walked through Baltimore to meet with William Welch, he planned to describe to Welch a plan that both men had already conspired to create. Flexner had been working with Frederick Gates of the Rockefeller Trust, who wanted to provide Hopkins with a $1 million grant if the school transformed to the model school described by Flexner's findings. Essentially, Hopkins would be the nation's premier research institute, with salaried researchers paid in part by the grant spearheading all teaching responsibilities, with all students following a rigid curriculum focused on science (A74), and with strict guidelines for admission and graduation. The clinical realm championed by Osler and his colleagues would be relegated to a footnote. Clinicians "have long ceased to be scientifically significant…. Whether the extremely prosperous physician or surgeon should have a place in such an institute as the Johns Hopkins Hospital seems to me most doubtful," said Flexner to Gates. (C-381)

In the realm of large foundations like Rockefeller and Carnegie, medical schools served as the best repositories of research and the production of scientists, upon which these companies were focused. Often, they sought to promote research pertinent to their own corporate interests. In fact, under Flexner's new guidelines requiring full-time faculty and ample research facilities, schools needed foundation money if they were to survive. As a result, within a decade all medical schools became dominated by researchers and not clinical physicians and teachers. "Many have argued that this was a mistake. They would have preferred to see only a few schools like Johns Hopkins training scientists and specialists, while the rest, with more modest programs, turned out general practitioners to take care of the everyday ills that make up the greater part of medical work. But this was not the course that American medical education followed…." (G123)

Despite emphatic and frequent protests from Osler in England, the world that he created at Hopkins and beyond quickly dissolved. His colleagues were fired and replaced by a

purely research-based staff. No longer did clinicians teach students, and no longer did students learn from their patients, as Osler so vehemently insisted. Welch readily accepted the million dollar grant from Rockefeller, and spearheaded a dramatic transformation in medical education and practice that relied on Flexner's template, the AMA's leadership, and Corporate dollars. Flexner went on to spend most of his career working for the Rockefeller Foundation.

The other winner in the battle for medicine's soul was the AMA, which stood as the only organization capable of assuring that Flexner's vision was properly implemented and executed. After Flexner, "the AMA would largely control medical school accreditation which would become bureaucratized and sclerotic. It also became the officially recognized entity authorized to speak on behalf of all physicians." (H3) Because doctors had to be licensed, and because licensing was controlled by the AMA, and because only AMA sponsored medical schools could graduate certified physicians, the AMA in fact controlled the global American medical system, and in many ways it was beholden to corporate foundations that help fund them and the schools. Flexner himself believed that medical education and practice would change and grow as times changed. "The flexibility and freedom to change—indeed the mandate to do so—was part of the system's mission from the very beginning. Contrary to popular myth, the system was always intended to evolve." (F25). Unfortunately, groups like Rockefeller and the AMA were not interested these changes.

Today, medical schools, and the entire health care network in this country, reflect the legacy of Flexner. As one author stated, "The practice of medicine was seen as a rigorist science with clear answers to defined questions, the foibles of patients being the province not of the laboratory-trained physicians but of clergymen and social workers." (K1860-1) The medical system would now focus on "disease organically defined, not on the system of health care or on society's health more generally." Patient-centered care, prevention, and the nuances of disease all were extirpated from training as a very parochial view of science as fact reduced medical education to a technical pursuit. (F25). Using a narrow set of courses in chemistry, physics, and biology to determine which students best qualified to be physicians, and then teaching students the science of the human health through a set curriculum that today is nearly identical to the one recommended by Flexner, medical schools have moved far away from the vision of Osler. Humanistic qualities, critical thinking, and a patient-focused approach to care have lost all significance both in the selection of students and in their training. "Isn't it astonishing that the medical school curriculum structure has remained unchanged for more than 100 years? And if we omit the 'dynamic sociological encounter between patient and physician' [as Osler advocated], is it any wonder a health care crisis would emerge?" (H3)

The legacy of Flexner's report and the rise of the AMA has left many scars with which we are living today. On the positive side for physicians, many charlatan practices have disappeared, and physician competency and income increased considerably. In 1900

the average doctor earned $750-$1500. By 1928 they were already earning on average $6354, with salary escalating continually due to a deliberately low physician supply and strong advocacy by the AMA. (G142)

But the physician class changed dramatically. Now only one, scientifically-based model of medical care predominated; the field became quite homogeneous and dependent on a scripted formula of practice to achieve success. The increased cost of medical education, required to help defray costs for full-time faculty and research facilities, eliminated all but the wealthy from the ranks of medical students. And Flexner's report and its ramifications triggered deliberate policies of discrimination against women, African-Americans, and Jews. (G124) Only two African-American medical schools remained, and the black doctor only survived through the efforts of the newly created National Medical Association (NMA) which sponsored a parallel black medical system given the pervasive bigotry sewed into the AMA and the American medical system it helped to create.

The other casualty of Flexner was the slaying of Osler. Today many people know Osler, or at least have heard the name. Virtually no one has heard of Flexner, the Rockefeller and Carnegie Foundation, or men like William Welch. Yet Flexner's report and its subsequent embrace by the AMA, charitable foundations, and established medical schools like Hopkins have secured Osler's irrelevance to the practice of medicine and the training of physicians. Researchers and specialists have trumped clinical generalists, the very physicians Osler's bold reforms were promoting as the cure to health care's ills at the turn of the century. After Flexner, researchers were "regarded as of greater intellectual worth than clinical practitioners which, not lending itself to grants, publications, or academic glory, was deemed a lesser calling." Even when schools trained non-research physicians, the emphasis on clinical education revolved around specialization and a scientific view of disease. (K1861) According to historian Howard Berliner, Flexner's "language leaves little doubt that he held the mass produced 'family doctor' in low esteem and he considered the new standard among physicians to be the highly scientific and sophisticated clinicians molded in the Hopkins environment of its equivalent." (B15)

In 1984 an AAMC report recommended changes in medical education that would move clinical medicine beyond the narrow confines of Flexner's report, changes they predicted would take root within just a few years. These were to:

- Develop analytic skills and instill patient-centric values into the curriculum.
- Encourage a broad liberal arts pre-med education
- Emphasize critical thinking over memorization
- Ensure that clinical clerkships encourage respect and concern for patient values
- Reward doctors who are educators. (I598)

Needless to say, none of those reforms transpired. Pre-meds are required to focus on science, and the Medical College Admission Test (MCAT) requires memorization and regurgitation of a large quantity of purely scientific data. Even through medical school, memorization, not critical thinking, is the skill that is necessary for testing success. Virtually no generalists teach students, and students are exposed almost entirely to specialized highly-scientific medical practices and ideas. Most significantly, patient-centered care as advocated by Osler has become a token gesture rather than the crux of all medical education.

We are indeed in a health care crisis. In our country we spend a trillion dollars of health care dollars for interventions that have been shown to be ineffective or even dangerous. Almost 50% of all we do as doctors is considered low value. Despite all we spend on health care, we rank among the worst in outcomes among all industrial countries. We are a nation of specialists, of high-tech medical practice, and of excessive drug use. Virtually all research is financed and controlled by industry and is conducted within medical schools whose research faculty are dependent on industry to survive and thrive, thus leading to conclusions that are sullied by self-interest. Patients feel frustrated, and their needs often fall prey to generic protocols and an emphasis on rigid scientific dogma. Students continue to be trained as scientists and not as physicians. Said one historian, “The Flexner Report… has taught us the danger of establishing a confining (and ultimately damaging) standard” in medical education and practice. (I601)

Can our health care delivery system ever change? To do so, we first must understand why it has moved so far off the rails of common sense and medical sanity. Today, over 100 years after Flexner, we should ask why we have not changed yet. Are there too many people and organizations benefitting from the current system? Do medical thought leaders believe that Flexner’s formula is still the best one for our health care delivery system? Or is it perhaps inertia and a lack of understanding of what needs to be fixed? In the end, we should peak back to a time before Flexner and grasp what William Osler had already gifted to the medical world. When read today, Osler’s words and ideas make sense. Certainly, if we are ever to transcend the health care mess in which we are embroiled, me must understand and embrace Osler and finally acknowledge the flaw of Flexner’s errant course.

References:

A. Bonner, Thomas. Inconoclast: Abraham Flexner and a life of learning. Johns Hopkins Universtiy Press, Baltimore, 2002.
B. Nevins, Michael. Abraham Flexner: a flawed American Icon. Universe Press, New York, 2010.
C. Bliss, Michael. William Osler: A life in Medicine. Oxford University Press, 1999.
D. Flexner, Abraham. “Medical education in the United States and Canada: A report to the Carnegie Foundation for the advancement of teaching,” 1910.
E.
F. Ludmann, Kenneth. Time to heal: American medical education from the turn of the century to the era of managed care. Oxford University Press, 1999.
G. Starr, Paul. The Social Transformation of American Medicine. Basic Books, 1982.
H. “Flexner vs Osler: Medical education suffers to this day,” alertandoriented.com/Flexner-versus-osler

I. Tauber, AI. “the two faces of medical education: Flexner vs. Osler revisited.” Journal of the Royal Society of Medicine, V85, 10/92.
J. Letter from Flexner to Osler from Carnegie Foundation, 10/6/1911
K. Rae, A. “Osler vindicated: The ghost of Flexner laid to rest.” JAMA, 164 (13), 6/26/01.
L. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1293684/pdf/jrsocmed00106-0012.pdf

Review Questions

Answers on next page

1. Which statement below best summarizes the European or Flexner approach to medicine?

a. Medicine is entirely scientific. As long as doctors gather enough data on the patient and are well enough trained, they will make the correct diagnosis and prescribe the correct treatment
b. Medicine is entirely an art. Tests and data are irrelevant since each patient is unique
c. Medicine is a combination of science and art. Doctors need to combine patient hard data from tests with wisdom and experience
d. Medicine is a religion. As long as patients believe strongly enough, they will recover from their medical ailments

2. Who said “It is much more important to know what sort of a patient has a disease than what sort of disease a patient has…Listen to your patient, he is telling you the diagnosis.”?

a. William Osler
b. Abraham Flexner
c. Alfred E. Neuman
d. Albert Einstein

3. Which type of physician would you prefer to diagnose and treat you: one trained in the Flexner style or one trained in the Osler style?

a. Flexner
b. Osler

4. How can a patient determine which type of physician – a Flexner or an Osler follower – treats them?

a. By interviewing the physician before receiving care. Note that this requires that the patient be well informed (medical definition) about care and treatments
b. There is no good mechanism available today to help patients make that choice
c. By staying ‘in-network’ based on your health insurance plan
d. By getting all your medical care overseas

Review Questions

Correct answers in bold

1. Which statement below best summarizes the European or Flexner approach to medicine?

a. **Medicine is entirely scientific. As long as doctors gather enough data on the patient and are well enough trained, they will make the correct diagnosis and prescribe the correct treatment**
b. Medicine is entirely an art. Tests and data are irrelevant since each patient is unique
c. Medicine is a combination of science and art. Doctors need to combine patient hard data from tests with wisdom and experience
d. Medicine is a religion. As long as patients believe strongly enough, they will recover from their medical ailments

2. Who said “It is much more important to know what sort of a patient has a disease than what sort of disease a patient has…Listen to your patient, he is telling you the diagnosis.”?

a. **William Osler**
b. Abraham Flexner
c. Alfred E. Neuman
d. Albert Einstein

3. Which type of physician would you prefer to diagnose and treat you: one trained in the Flexner style or one trained in the Osler style?

a. Flexner
b. Osler
c. **The correct answer is up to each individual patient**

4. How can a patient determine which type of physician – a Flexner or an Osler follower – treats them?

a**. By interviewing the physician before receiving care. Note that this requires that the patient be well informed (medical definition) about care and treatments**
b. There is no good mechanism available (either a or b can be correct)
c. By staying ‘in-network’ based on your health insurance plan
d. By getting all your medical care overseas

Some Risk Management Problems in today's health insurance environment

As Andy Lazris so eloquently discussed in the previous chapter, Abraham Flexner believed in science and facts. He idealized the then-cutting-edge German approach to medical education that focused on 3 laboratory based disciplines - physiology, pathology and bacteriology – at the expense of the humanities and experience. Science gives answers, 'facts', and the medical student's role to Flexnerians, is to collect them.[160]

The more facts the student accumulates, the better the student.

The better the student, the better the doctor.

The ideal physician accumulates as many scientific facts about medicine in general, and then the patient in particular, as possible in order to make the best diagnosis and treatment recommendation. Facts drive the process.

It's not even necessary to see the actual patient in Flexner's world. To quote Andy's comments on the German approach:

> if students can master science, they can figure out a patient's diagnosis and treatment without necessarily seeing or speaking with the patient. They just need data.

Or, stated differently, Flexnerians believe that the human body is a mechanical object to be understood and fixed when it malfunctions, a huge wall of knobs and dials that doctors optimize with medications, therapies and surgeries. Treating a patient essentially becomes the same as baking a cake or building a car. Cake too sweet? Dial down on the sugar. Cholesterol too high? Dial up on the statins. Knee pain? Arthroscopic debridement.

An extension of the Flexnerian mechanical world view is that there's always some way that medicine can improve the patient's condition, leading to the proposition that more medical care is better than less. Why settle for a *pretty* healthy patient when we can create, through science, a *very* healthy one?

This scientific-mechanical approach to medicine minimizes the problem of complexity, sidesteps the problem of overreach and ignores the issue of patient preference. Each independently poses a significant objection to this mechanical view of medicine. Altogether, they pose a mortal one. We'll explore below.

The Problem of Complexity

[160] *Flexner's exact quote was 'The student is to collect and evaluate facts.' Abraham Flexner (1910). "Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching"*

The human body, as any practitioner or recipient of medical care knows, is north of unbelievably complex. Each medical intervention creates primary effects, side effects and rebound effects which may serve to mitigate the intended impacts. Statins, for example, have a primary effect of preventing heart attacks, which they do, on average according to Pfizer's estimates of patients without known heart disease but with risk factors, about 1% of the time. [161]

But statins cause diabetes about half as often. [162] Diabetes, in turn, can cause heart attacks. So the statin rebound effect ultimately negates some of the primary impact.

Michael Porter and Elizabeth Teisberg, in their massive Redefining Health Care treatise, summarized the medicine complexity problem. 'There are too simply too many dimensions of process to track and too much heterogeneity among patients,' they write.[163] Clinicians may tend to focus not on the most important medical variables but on those most easy to identify, quantify and affect.

Often these become 'guidelines', 'checklists' or 'established protocols.'

We humans, it appears, like guidelines and protocols. It's one of our foibles. Checklists help us reduce the number of potentially important variables to a manageable handful, help us target our investigations and streamline the medical diagnostic and treatment process. Guidelines help us avoid starting every patient analysis from the underlying biological and physiological principles, then reasoning toward a specific diagnosis and treatment. Protocols tell us which interventions commonly succeed with a particular type of patient.

Those efficiency gains are the good bits.

The bad bit comes from a second human foible: intellectual and bureaucratic inertia. Once we accept a standard approach, we tend to ignore contrary evidence, put blinders on in other words. Some research suggests that this is the reason it takes up to 10 years for a new medical process to become widely accepted even if it's clearly scientifically based and clearly better than the old process, or even longer for an outdated one to disappear. [164]

---

[161] See the Lipitor ad, Dec 4, 2007 Wall Street Journal. The small print, bottom left of that ad states 'in a large clinical study, 3% of patients taking a sugar pill or placebo had a heart attack compared to 2% of patients taking Lipitor.' This study was of patients without known heart disease. The number differ for patients with heart disease.

[162] See Statin Drugs Given for 5 Years for Heart Disease Prevention (Without Known Heart Disease), 2017 version by John Abramson on TheNNT.com.

[163] Porter and Teisberg, Redefining Health Care, page 87

[164] See Vinary Prasad, Ending Medical Reversal and Richard Pearl, Mistreated for more on these estimates.

In Flexner's model, physicians would, theoretically, constantly review and revisit guidelines and protocols to ensure their accuracy in the face of new research and information. But that's simply not what happens in real life. Our foibles – fatigue, complacency, greed, intellectual laziness perhaps - don't permit it.

As Atul Gawande summarized in his 2015 Overkill New Yorker article:

> We can recommend care of little or no value because it enhances our incomes, because it's our habit, or because we genuinely but incorrectly believe in it.

Flexner apparently thought well trained physicians wouldn't take this approach; Gawande, the product of our Flexner based medical education system, admitted to it.

How often does this actually happen? Vinay Prasad answered that in a brilliant analysis of medical reversal. [165]

Prasad and his team reviewed every article in the New England Journal of Medicine between 2001 and 2010 and pulled out those that tested an established medical practice, one commonly used on patients like intensively lowering blood sugar in Type 2 diabetics to reduce cardiovascular events … interventions, in other words, that were scientifically fact based and that the medical community embraced.

363 studies qualified.

Prasad then asked 'Of those 363 studies, how many *affirmed* the practice?' i.e. found that it benefited patients.

38% affirmed the practice, 40% negated the practice, (found it ineffective or harmful) and 22% were ambiguous.

The Prasad team's research shows that if you base your medical decisions on biology, physiology, anatomy and logic – *exactly as Flexner prescribed* – you are wrong about as often as you are right.

That strikes me as a pretty dismal report card on the Flexner / Germanic approach to medical education.

Porter and Teisberg attack Flexner's medicine-as-mechanics approach from a second point of view also. Mediocrity, errors and the important human / personal interaction factor in doctor-patient relationships go unaddressed. Even if two physicians have managed to master Flexner's scientific facts equally well, one may be a better medical practitioner. Fact based knowledge and process compliance don't always lead to similar outcomes.

Consider cystic fibrosis treatment and outcomes. [166]

All CF patients receive care from one of 117 ultraspecialized centers that follow the same extremely detailed treatment guidelines. CF specialists attend the same

---

[165] Prasad, A Decade of Reversal, Mayo Clinic Proceedings, August 2013

[166] This discussion comes from Atul Gawande's article The Bell Curve in his book Better, 2007.

conferences, shared the same knowledge base, focus on the same variables and facts, and treat patients the same way. But they generate different patient outcomes.

The two primary CF outcome metrics are lung function and longevity. The Flexner / German expectation would be that all centers would generate approximately similar outcomes on these two measures, within a fairly narrow margin. After all, they all use the same science and facts in their diagnostic and treatment protocols and treat similar patients.

But research shows that the 117 cystic fibrosis facilities generate quite discrepant outcomes. The average clinic, according to a 1997 study, generated patient life expectancies of just over 30 years. But the best managed 46.

Ditto for lung capacity.

That's only part of the issue. Perhaps the more astonishing thing is that one CF center routinely outperformed the others. It was at Fairview-University Children's Hospital in Minneapolis. (This is based on an early 2000's study, is likely out of date and I don't give cystic fibrosis treatment advice.) Patients at Fairview apparently routinely had lung capacities equal to the average non-CF population, higher than at most CF clinics.

How could a facility far outperform the average, and how could the same one outperform the average year after year? The answer appears to be some amorphous combination of physician-patient connections, a corporate culture that wouldn't accept sub-par outcomes and the personality of the director.

Flexner's mechanical model doesn't describe or account for these results.

But William Osler's does. 'The good physician', he claims, 'treats the disease. The great physician treats the patient who has the disease.' Medical excellence is only partially grounded in science and facts – those are necessary but not sufficient conditions. Excellence also requires empathy, interpersonal connections, clinician perceptiveness and a human connection that somehow, almost indescribably, adds therapeutic value. That's the art of medical care, present to Osler but missing from Flexner.

The difference between good and great to Flexner is some measure of scientific understanding and fact accumulation. The difference between good and great to Osler appears in other arenas like human connections, the non-scientific ones that medical education too often leaves out.

But we've so far only discussed the 'complication' critique of Flexner's approach. Let's now turn to the treatment overreach objection.

Low Quality and Unnecessary Care

The US medical care system, and perhaps others with which I'm unfamiliar, offers an astonishing amount of poor quality care. I'll define poor quality in a couple of ways:

- Unnecessary care or waste: Care that generates no patient benefit according to comparative studies. In other words, outcomes from the control and treatment groups are the same or practically so.
- Low quality care: Care that generates some benefit to a clearly specified group of patients according to studies but that is offered to a wider group so likely generates no benefit to the wider population.

Consider statins to prevent heart attacks as a simple example.

TheNNT.com estimates the Number Needed to Treat (NNT) is 39 for people with known heart disease, meaning that for every 39 people with known heart disease who take statins for 5 years, 1 will avoid a heart attack.

The Flexnerian, caring physician might look at a patient *without* heart disease though and say 'This patient shares certain important biochemical and physiological factors with the studied group. I think patients without heart disease will also benefit though probably not quite as much' and prescribe statins to the wider group, expecting somewhat similar results.

But that's not the case, at least not by an order of magnitude. TheNNT.com estimates that only 1 in 217 patients without known heart disease will benefit by avoiding a heart attack over 5 years. [167]

Are 1 in 39 and 1 in 217 similar care quality? I think not. There seems to me at least, a qualitative difference here. I'll postulate as a thought experiment that if 1 in 39 is 'good quality care', then 1 in 217 is 'low quality care'.

And if 1 in 39 is 'low quality care', then 1 in 217 is 'unnecessary care or waste'. (Yes there's some benefit but differentiating value from waste at these levels strikes me like splitting hairs with an axe.)

And we haven't even considered the treatment risks.

Where would a caring physician, draw the line between high and low quality care, or between low quality and unnecessary? I certainly don't know.

And neither, I'll postulate, does a Flexnerian, fact based scientist.

Extending this argument – that care generating reasonable quality care to a narrowly defined group might generate low quality care to a larger group – uncovers tremendous waste throughout our medical system.

[167] http://www.thennt.com/nnt/statins-persons-low-risk-cardiovascular-disease/

David Cordani, Cigna's CEO estimates somewhat conservatively, that 'slippage' or care that should benefit patients but doesn't, accounts for at least 25% of all US healthcare spending but probably much more. [168]

Aetna, another huge national health insurer, says less conservatively on its website that

> Wasteful spending likely accounts for between one-third and one-half of all US healthcare spending. [169]

And the Dartmouth Atlas, generally considered the bible of healthcare utilization analytics, uses a widely quoted estimate of 'up to about 1/3' of all US healthcare spending but added 'we view this as an underestimate given the potential savings even in low cost regions'.[170]

I think they're right, especially about the 'underestimate' bit.

This shouldn't happen according to Flexner's German school view. Physicians should accumulate all the facts and develop the right interventions. That's what science is all about – being right.

They shouldn't miss 30 – 50% of the time!

Let's put some meat on this low quality and unnecessary care bone by reviewing a 2018 Washington State study.[171] The Washington Health Alliance analyzed utilization and billing data from 2.4 million commercially insured patients and found that 45% of services delivered were wasteful. 45%!

Why does our system engage is so much low quality care? I think our human foibles are largely to blame. These fall into 3 general categories:

- Physician role definition, basically 'this treatment *might* benefit my patient and I don't want to withhold any potential benefit'. We might call this the medical plausibility foible – 'it might happen';
- Tort issues, basically 'I might get sued it I don't do it'; and
- The Upton Sinclair insight that 'it's difficult to get a man to believe something when his salary depends on him not believing it.' That's why surgeons tend to recommend surgery, therapists therapy and urologists interpret PSA study results differently from the US Preventive Services Task Force.

None of these foibles fit Flexner's world view. They're not science and fact based.

---

[168] Cordani's Keynote Address at the 2015 Yale Healthcare Conference

[169] http://www.aetna.com/health-reform-connection/aetnas-vision/facts-about-costs.html

[170] http://www.dartmouthatlas.org/keyissues/issue.aspx?con=1338

[171] First, Do No Harm: Calculating Health Care Waste in Washington State, February 2018, www.wacommunitycheckup.org

But they're all human characteristics and all impact the actual practice of medicine.

And they all, in various ways, touch on the third major flaw in Flexner's approach, the problem of patient preferences.

Preference sensitive decisions

Unnecessary care to one person might be reasonable care to another just like in our statin example above. John Wennberg, founder of the Dartmouth Institute calls this a 'preference sensitive' decision, meaning that one patient might opt for the statins while another declines and **both may be right**. This is a tacit admission that there are rarely clear cut medical decisions.

Wennberg calls these relatively few obvious medical decisions 'effective care' defined as services that, on the basis of reasonably sound medical evidence, are known to work better than any alternative. [172] This group of treatments accounts, based on his research, for only about 15% of all medical care.

It's the category in which Flexner's analysis applies and probably flourishes. Examples include childhood immunizations, lifesaving drugs for patients with heart attacks, and regular blood tests and eye exams for diabetics.

A far larger category is 'preference sensitive' care meaning care for which there is more than one option and in which different people can make different decisions and all be correct. Preference sensitive care requires judgment to evaluate the risk-benefit tradeoffs. Wennberg estimates it's at least 25% of medical care. [173]

We've already discussed preventive services – statins as primary prevention. Now consider treatment for torn or injured rotator cuffs. A surgeon will likely recommend surgery after examining the patient and identifying a rotator cuff tear. But a physical therapist, reviewing the same data on the same patient, might well suggest PT.

That rotator cuff situation arose for a student of mine. He recounted that he first saw an orthopedic surgeon who took an MRI, identified the cuff tear, showed him the picture and recommended surgery. 'I would have agreed to surgery' he went on to say, 'prior to hearing your discussions about preference sensitive decision making.' (See – there actually is some value to continuing education classes!)

'But I asked the surgeon if all physicians would agree with that analysis and recommendation.' (In other words, was this an effective care situation in Wennberg's terms?) The surgeon 'answered with a snort that some clinicians might suggest physical

[172] Wennberg, Tracking Medicine, pages 8 – 10, then Parts II and III

[173] Wennberg's definitions of 'preference sensitive' and 'supply sensitive' care overlap. According to some interpretations, 'preference sensitive' may describe 85% of medical care. The exact definition and amount doesn't matter for this analysis; it's a lot no matter how we define the terms.

therapy but that would be a waste of time and that I'd be back in his office shortly thereafter.' (In other words, this was a preference sensitive decision.)

My former student decided to try PT and reported when next I saw him that his shoulder was pain free and that he had regained 99%+ range of motion – it might have been 100% but he wanted to be conservative - in the same time as surgical recovery but without the costs and risks of surgery. 'Thanks' he smiled as he relayed the story.

Was the surgeon wrong? Probably not. Surgery probably would have worked.

Was the patient right to ask about therapy? Clearly. Not only did it solve his problem but he preferred it. His choice defined the best medical treatment.

None of this makes sense in Flexner's the-human-body-is-a-big-mechanical-device world view. There's an answer in the Flexnerian world and the doctor's job is to find it.

But in the real world, doctors have foibles. They don't always diagnose and prescribe correctly because the human body is so complex. They frequently overreach because of their desire to help, combined with their economic incentives. And often misunderstand their patients' preferences.

Together these three problems doom Flexner and his Germanic approach.

Atul Gawande summarized the modern physician's role more appropriately by acknowledging that emotion complements science and that each patient has individual hopes, aspirations, fears and conditions:

> The ideal modern doctor should be neither paternalistic nor informative but rather interpretive, helping patients determine their priorities and achieve them.[174]

That approach, far more than Flexner's, warms my heart as a patient.

[174] Sheri Fink, Atul Gawande's Being Mortal, NY Times Book Review, Nov 6, 2014

Review Questions

Answers on next page

1. What is medical reversal?

    a. Stop providing medical care when studies show that it doesn't benefit patients
    b. Save a dying patient. In other words, reverse the biological process
    c. Have a different specialist undo the treatment you previously received
    d. Have a doctor change his/her mind as in 'I thought that Treatment A would help you but I was wrong, so now we'll try Treatment B.'

2. What is one definition of low quality care?

    a. Care that generates some benefit to a clearly specified group of patients according to studies but that is offered to a wider group so likely generates little to no benefit to the wider population.
    b. Cheaper care when more expensive care is available
    c. Care based on virtually any non-state of the art equipment
    d. Low technology care when higher technology care is available

3. What is the NNT or Number Needed to Treat?

    a. The number of patients who need to receive a treatment or test in order for 1 patient to benefit
    b. The number of physicians who need to treat a patient for the patient to benefit
    c. The number of times a physicians must perform a test or treatment in order to achieve excellence at it
    d. The number of patients a hospital must treat in order to avoid harming any

4. What is a definition of unnecessary care?

    a. Care that does not generate any patient benefit
    b. Care that does not generate any physician income
    c. Care that does not generate any hospital income
    d. More expensive care when less expensive care is available

5. What lesson can we learn from Atul Gawande's analysis of cystic fibrosis treatments?

    a. That beneficial medical care is a combination of science, art, human interactions and emotion
    b. That physicians who follow the guidelines most closely generate the best patient outcomes
    c. That physicians who ignore guidelines generate the best patient outcomes
    d. That medicine is almost exclusively a science and the best physicians are those who understand the underlying biological, physiological and anatomical processes the best

6. What does preference-sensitive mean in medical care?

a. That different patients, with the same medical condition, can choose different treatments and all be right
b. That different patients, with the same medical condition, should always choose the same treatment
c. That there is 1 correct treatment for a given medical condition and dozens, perhaps, incorrect treatments
d. That doctors often prefer to give different treatments to similar patients simply to add variety to their professional lives

7. According to this chapter, is the human body a big mechanical device?

a. Yes
b. No. People consist of bodies and minds. The wisest physician understands this and seeks to engage both when prescribing medical care

8. This chapter suggested 3 reasons why physicians prescribe unnecessary and low quality care. Which below is not one of those reasons?

a. Physician hopes and role responsibility, basically thinking 'this treatment *might* benefit my patient and I don't want to withhold any potential benefit'
b. Tort concerns, basically 'I might get sued if I don't do it'
c. The Upton Sinclair insight that 'it's difficult to get a man to believe something when his salary depends on him not believing it.' That's why surgeons tend to recommend surgery, therapists therapy and some providers routinely recommend the most expensive interventions
d. The boredom defense, basically 'I didn't have a lot to do in the hospital that day to I decided to provide some unnecessary care to break up the boredom'

Review Questions

Correct answers in bold

1. What is medical reversal?

    a. **Stop providing medical care when studies show that it doesn't benefit patients**
    b. Save a dying patient. In other words, reverse the biological process
    c. Have a different specialist undo the treatment you previously received
    d. Have a doctor change his/her mind as in 'I thought that Treatment A would help you but I was wrong, so now we'll try Treatment B.'

2. What is one definition of low quality care?

    a. **Care that generates some benefit to a clearly specified group of patients according to studies but that is offered to a wider group so likely generates little to no benefit to the wider population.**
    b. Cheaper care when more expensive care is available
    c. Care based on virtually any non-state of the art equipment
    d. Low technology care when higher technology care is available

3. What is the NNT or Number Needed to Treat?

    a. **The number of patients who need to receive a treatment or test in order for 1 patient to benefit**
    b. The number of physicians who need to treat a patient for the patient to benefit
    c. The number of times a physicians must perform a test or treatment in order to achieve excellence at it
    d. The number of patients a hospital must treat in order to avoid harming any

4. What is a definition of unnecessary care?

    a. **Care that does not generate any patient benefit**
    b. Care that does not generate any physician income
    c. Care that does not generate any hospital income
    d. More expensive care when less expensive care is available

5. What lesson can we learn from Atul Gawande's analysis of cystic fibrosis treatments?

    a. **That beneficial medical care is a combination of science, art, human interactions and emotion**
    b. That physicians who follow the guidelines most closely generate the best patient outcomes
    c. That physicians who ignore guidelines generate the best patient outcomes
    d. That medicine is almost exclusively a science and the best physicians are those who understand the underlying biological, physiological and anatomical processes the best

6. What does preference-sensitive mean in medical care?

a. **That different patients, with the same medical condition, can choose different treatments and all be right**
b. That different patients, with the same medical condition, should always choose the same treatment
c. That there is 1 correct treatment for a given medical condition and dozens, perhaps, incorrect treatments
d. That doctors often prefer to give different treatments to similar patients simply to add variety to their professional lives

7. According to this chapter, is the human body a big mechanical device?

a. Yes
b. **No. People consist of bodies and minds. The wisest physician understands this and seeks to engage both when prescribing medical care**

8. This chapter suggested 3 reasons why physicians prescribe unnecessary and low quality care. Which below is not one of those reasons?

a. Physician hopes and role responsibility, basically thinking 'this treatment *might* benefit my patient and I don't want to withhold any potential benefit'
b. Tort concerns, basically 'I might get sued if I don't do it'
c. The Upton Sinclair insight that 'it's difficult to get a man to believe something when his salary depends on him not believing it.' That's why surgeons tend to recommend surgery, therapists therapy and some providers routinely recommend the most expensive interventions
d. **The boredom defense, basically 'I didn't have a lot to do in the hospital that day to I decided to provide some unnecessary care to break up the boredom'**

Deductibles and Plan Management

Successful and sustainable healthcare cost control programs require that you teach your employees how to identify and avoid unnecessary, ineffective, wasteful and low quality medical care.

Attempts to control expenses with plan design changes or ancillary programs but without this educational component never live up to their billing.

Here's a condensed 50 year history of commercial health insurance:

- Cost sharing or 'major medical' in the 1970s was inflationary so replaced by
- First dollar coverage or HMOs – the opposite of cost sharing - in the 1980s and 90s. People found these plans too restrictive so replaced by
- High deductible plans - the opposite of first dollar coverage - post 2000. People complain about the deductible size and have trouble differentiating necessary and beneficial medical expenditures from unnecessary and wasteful.
- None of these programs integrated the necessary educational component into their fabric. Any would have been far more successful with it.

You've probably tried

- Wide hospital networks figuring more competition leads to lower costs and
- Narrow hospital networks figuring more carrier control leads to lower costs,
- Defined benefit plans to give employers more plan design latitude and
- Defined contribution plans to give employees wider choice, and
- Several other things that didn't work out too well …but never with a fully integrated employee education component.

The unwritten assumptions behind all these plans and design changes: the right financing program will motivate employees either to (a) use better medical care, (b) use less medical care or (c) use less expensive medical care.

History has conclusively shown these assumptions wrong.

Your employees will always find a way to access the medical services that they believe will improve their health whether or not that belief is valid. Attempting to influence their behavior with financing restrictions annoys them, doesn't work and doesn't improve their treatment outcomes or health.

The fundamental axiom
that any effective healthcare financing program honors

Good health is cheaper than bad health. That's universally and patently true.

So is its extension: the more quickly and efficiently you can turn an employee from sick to healthy, the less it costs, especially if you factor in absenteeism and presenteeism.

Better care quality – better outcomes in other words – is cheaper than poorer care. (Yes, I understand that some MRIs cost less than others. But I wonder how many are necessary and actually improve employee health.)

If your employees choose medical care based on likely outcomes, they'll get healthier and you'll save money. It's the best possible win-win.

But if your financing program tries to get them to choose medical care based on other criteria … not so much.

This presents a new focus

I suggest that corporate healthcare programs have as their #1 priority teaching employees how to choose care based on the outcomes they're likely to enjoy.

Design and develop that program first. This book can help. So can my online education program www.TheMedicalGuide.net.

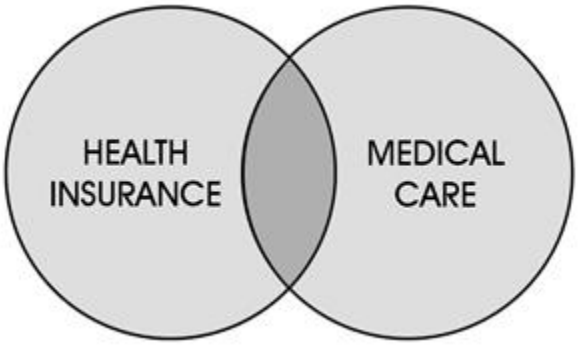
Then design a financing system to enhance and support your educational effort.

Don't do it the other way around.

The Old School approach currently in effect

Corporate engagement programs focus on understanding insurance coverage. Employees ask 'is the service covered?' and often conclude that 'if it's covered, I want it.'

The New School approach proposed in this book



The interesting work takes place in the overlap.

Corporate engagement programs include medical literacy.

Employees learn to ask 'is the service covered, *does it benefit me and do I want it*?'

What this chapter is about

Millions of well insured Americans get too many tests, take too many medications and have too many medical interventions. Our currently in-vogue benefits programs – deductibles, HSAs, wellness programs, etc. – haven't stemmed that tide.

Instead, I'll show you how to identify and avoid unnecessary, excessive, ineffective and low quality medical care.

I'll teach you the Five Most Important Questions to Ask Every Doctor, At Every Appointment, About Every Medical Intervention.

- If you learn, understand and ask these questions, you'll get better medical care with less risk. And you'll save a bunch of money along the way.
- If your company adopts this approach, it will save money and help its employees enjoy better outcomes with less intervention risk.

Too much care – and the wrong care - is bad for your health, both medical and financial. We currently waste according to many, up to $1 trillion annually. That's almost Russia's total GDP!

Consider these estimates.

- David Cordani, CEO of Cigna claims that slippage or 'things that don't work the way they're supposed to' accounts for at least 25% of all medical spending but 'probably much more'.
- Aetna's website says that 'wasteful spending likely accounts for between one-third and one-half of all US healthcare spending'.

- The Dartmouth Atlas, generally considered the bible of healthcare utilization analytics, suggests that up to about 1/3 of all US healthcare spending generates no patient benefit views this ‘as an underestimate given the potential savings even in low cost regions’.

The specifics may shock you. We Americans annually, for example,

- get 36 million prescriptions for a blood pressure lowering medication that doesn’t prevent heart attacks or save lives,
- spend $1 billion on a back procedure that works no better than a placebo,
- spend $3 billion on a knee procedure that can work less well than a placebo,
- spend over $2 billion on a cholesterol lowering drug that has not been shown to prevent heart disease or heart attacks according to its own advertising,
- and much more.

I’ll name names and provide details. I’ll also discuss some common medical procedures and show you that, for example,

- A quarter, maybe more, of the mastectomies in Connecticut generate no patient benefit.
- Half, maybe more, of the back surgeries in Fort Myers Florida generate no patient benefit.
- 30% or maybe even half of the c-sections in Florida, New Jersey and Louisiana provide no patient benefit.

This excess can lead to patient harms caused by medical care. Consider this trend:

- The 1999 Institute of Medicine report ‘To Err is Human’ found that up to 98,000 patients die annually from medical errors.
- Seventeen years later, a 2016 Johns Hopkins study found that over 250,000 Americans die annually from medical errors.

All this leads to a dismal healthcare summary:

- Americans spent $328 billion more for healthcare in 2015 than 2013. That’s about $1000 more per person.
- But we lived slightly less long in 2015. For the first time in decades, our national life expectancy actually fell despite the increased medical spending.

This gross inefficiency puts enormous responsibility on individual patients to choose healthcare wisely.

Step 1 of that process is acknowledging and understanding the problems.

Step 2 is learning how to make wise medical decisions.

How to make a wise medical decision

Follow this process to get better outcomes with less risk and at lower costs:

- First, determine how well the medical intervention works.
- Second, evaluate your treatment options. You almost always have them.
- Third, determine which doctor and hospital generates the best outcomes for your preferred treatment alternative.
- Fourth, if you find two or more equally excellent providers for your preferred option, consider price. But consider price fourth, only after you've completed the first three steps!

Asking the right questions gets you the information necessary for wise decisions.

But asking the wrong questions gets you … something else. Maybe useful information, but maybe just some of the most important information, maybe irrelevant (even if true) facts, maybe impressions, maybe incorrect information, maybe noise, who knows.

Obtaining the relevant information is a skill that most of us lack. In fact, according to the US Department of Health and Human Services, only 12% of Americans are medically literate, meaning they have the skills necessary to assess likely treatment benefits and harms though I suspect the real number – the percentage of people who understand and use the tools described in this book – is actually much lower.

Less medically literate folks have higher hospitalization rates and medical costs, and poorer health outcomes. This medical literacy problem arises because most of us haven't been taught how to approach medical investigations. This book will correct that problem.

The Goldilocks Rule
not too little, not too much, but just right

Too little medical care leads to undertreated patients and poorer-than-optimal outcomes.

Too much medical care leads to overtreated patients, higher-than-necessary treatment risks, higher-than-necessary medical costs and potentially poorer-than-optimal medical outcomes.

Inappropriate medical care leads to suboptimal outcomes, excessive costs, patient dissatisfaction and sometimes lawsuits.

Appropriate medical care minimizes your chance of medical harm but maximizes your chance of medical benefit.

Why can't I simply follow my doctor's advice and skip the rest of this chapter?

You always should consider your doctor's advice! But temper it with our questions for two main reasons:

First, doctors generally worry more about undertesting and undertreating than overtesting and overtreating patients. (This highlights a difference between advice giving and advice receiving, a situation I'll discuss in Question 4.)

- As trainees, they're upbraided for having too little information about their patients not too much information, so learn to overtest.
- As doctors, they're typically paid to do more not less, so may overtreat.
- As caring human beings, they want to do something to relieve your suffering, not nothing.
- As professionals operating in our legal system, they're more likely to be penalized for not doing something than for doing something extra.

One result is that about a third of patients annually receive one or more useless tests or treatments.

- Dr. Atul Gawande, a famous Boston area surgeon, found that 7/8ths of his patients had.
- Millions more, he writes, 'receive drugs that don't help them, operations that don't make them better and scans and tests that do nothing beneficial but often cause harm.'

Second, many doctors assume they know what patients want, their risk / reward tradeoff decisions. But studies show doctors can get this wrong.

- One, for example, showed that most doctors assume breast cancer patients rate 'living as long as possible' as their primary goal. But only 59% of patients agreed. Doctors were wrong about 40% of the time.
- A second showed that 40% of men with benign prostate disease opted against surgery once they were fully informed of surgical risks and benefits.
- A third showed that almost 20% of patients suffering from chest pain diagnosed as stable angina opted against surgery when fully informed of their treatment options and likely outcomes.

A fundamental cause of these problems is 'information asymmetry' or 'your doctor knows more about medical care than you do so thinks he or she understands your treatment goals and preferences too.' Gawande writes

We can recommend care of little or no value because it enhances our incomes, because it's our habit, or because we genuinely but incorrectly believe in it.

Patients often want to do their homework but don't know how. Some attempt to become mini-MDs through online research. That almost certainly won't protect against unnecessary, excessive or inappropriate care; the research is clear.

Instead this book will show you how.

It will put you onto a level (or, at least, a more level) field so you can participate more wisely and effectively in your own medical decision making.

The 5 Question Checklist
Medical Literacy in Practice

*If you **understand** these questions, you're medically literate.*

*If you **ask them**, you're ahead of the curve.*

*If you **get them answered**, you've maximized your chance of benefit and minimized your risk of harm.*

In a typical appointment, you and your doctor discuss a medical problem and your doctor recommends an intervention.

Ask these 5 questions about that recommendation:

- Has it been tested for the outcomes that concern me?
- Out of 100 people like me, how many benefit and how many are harmed?
- Is it overused?
- Would most physicians make the same recommendation or might some suggest something different?
- How many patients like me do you treat annually?

These deceptively simple questions are based on extensive research and analysis. The better you understand them and the more you integrate them into you medical thinking, the better care you'll get.

Ask them of every doctor, at every meeting, about every medical intervention.

You can use this list as a script. Feel free to share it with your doctors.

Question #1
Has it been tested for the outcomes that concern me?

Testing determines how well a medical intervention works in real life, on real people.

When testing, medical researchers typically divide a large group of people in half to make 2 identical smaller groups. They give one group the treatment but not the other.

Then researchers watch both groups for a time period, say 5 years, and note medical differences like the number of heart attacks, deaths or strokes. They attribute any differences to the intervention.

Simple! (Actually not simple at all. Medical research methodology is very complicated and worthy of many books, each much longer than this.)

But what happens if you don't have 5 years available? Say that a new blood pressure lowering drug just came on the market, looks promising and you, a person with high blood pressure, have a doctor's appointment the next day.

Your doctor may say 'this is the newest generation of blood pressure lowering medications and has been configured to reduce the side effects of the old drug. I suggest you try it and see how you tolerate it.'

In theory the new drug works well. But it hasn't been tested yet in real life, on real people, for years.

How well does it work?

Dr. Vinay Prasad, assistant professor of medicine at the Oregon Health and Sciences University, studies that issue. He asks 'how well do medical interventions work if they haven't been tested over long time periods on real people?'

How well, in other words, did medical theory hold up to subsequent testing?

Prasad and his team conducted a fascinating study. They reviewed every article in the New England Journal of Medicine between 2001 and 2010 and pulled out those that studied and tested an established medical practice, one commonly used on patients like intensively lowering blood sugar in Type 2 diabetics to reduce cardiovascular events … interventions, in other words, that made medical sense and that the medical community embraced.

363 studies qualified.

Prasad then asked 'Of those 363 studies, how many affirmed the practice?' i.e. found that it benefited patients.

38% affirmed the practice, 40% negated the practice, (found it ineffective or harmful) and 22% were ambiguous.

Dr. Prasad's research shows that if you base your medical decisions on biology, physiology, anatomy and logic – but not on test results – you are wrong about as often as you are right.

We'll call this Prasad's Law and refer to it throughout this book.

According to Dr. Prasad, rather than focusing on outcomes, patients often

> *gravitate toward the nuts and bolts — what does it do, how does it work?*
>
> *But the real question is: Does it work? What evidence is there that it does what you say it does? What trials show that it actually works?*
>
> *You shouldn't ask how does it work, but whether it works at all.*

Why is this the case?

Our bodies are enormously complicated and our understanding of medical risks, causality and treatment impacts is surprisingly limited. Sometimes (often?) rather than using the most important biological or anatomical factors in our medical theories, we use the most easily accessible and measurable.

Here's an analogy to illustrate:

Assume that our bodies are controlled by a wizard located in our brain, more or less like the fellow behind the curtain in the Wizard of Oz.

The wizard in our brain has a wall of knobs that control body parts and functions - one controls cholesterol levels, another blood pressure, a third bone density, a fourth eye ball pressure, etc.

If each knob is 1 inch in diameter and 1 inch apart (so the wizard can get his fingers around it) the wall is six and a half feet high and half a mile long!

Turning any one knob affects the value of some others, which in turn affect still others.

We simply can't anticipate all the initial effects, rebound effects, interactions and modifications from turning a knob or two.

Medicine rarely works in the simplified 'if A causes B, and B causes C, then A causes C' scenario. That's why we need to test.

Wise patients always ask 'has it been tested for the outcomes that concern me?'

If it has been tested, then your doctor can tell you how well it works. All physicians today can access extensive databases of medical studies…in their offices…in real time so they can answer this question.

If answers exist.

Asking this question may motivate your doctor to refresh his or her memory and look for new studies that have been published since the last time he or she checked.

You and your doctor can then decide if the intervention works well enough for you. I'll show you how in the next section.

But you may learn that the intervention has not been appropriately tested. In that case, you know your chance of benefit is only 50/50. Prasad's Law tells us that.

And even if it benefits you, it might not benefit you very much.

Examples of medical care that should work, but doesn't; Case studies that illustrate the power of asking this question

I'll present 6 case studies to show the power of asking 'has it been tested for the outcomes that concern me?' and why you need to ask this question about every medical intervention:

- Extended release niacin, a 'good cholesterol' boosting drug
- Atenolol, a blood pressure lowering drug
- Ezetimibe, a cholesterol lowering drug
- Vertebroplasty, a back surgery technique
- Arthroscopic knee surgery, a knee osteoarthritis remedy
- Rest after heart surgery, an historical example to tie everything together

Extended release niacin. Niacin, a B vitamin, has been shown in tests to raise good (HDL) cholesterol. More good cholesterol is associated with a lower heart attack risk, so artificially raising it should benefit patients.

Niacin doesn't lower total cholesterol like commonly prescribed statin drugs.

Cardiologists have prescribed various niacin products for years. One, Niaspin manufactured by Abbott Labs, generated about $900 million in 2009 sales.

Then in 2011, the AIM-High trial of niacin effectiveness showed that, while extended release niacin is associated with higher HDL levels and lower triglyceride levels, there was no significant reduction in cardiovascular events.

In 2013, a second study, this time of Merck's niacin drug Tredaptive found the same thing: no difference in coronary event rates between people taking Tredaptive with a statin, and those just taking the statin.

Two studies on two different niacin based drugs arrived at the same conclusion: niacin doesn't reduce rates of heart attacks or strokes.

This is an example of Prasad's Law: interventions that appear to make biological sense and that are adopted before publication of comparative tests are proven ineffective or harmful about half the time when they finally are tested.

Atenolol, a blood pressure lowering drug. High blood pressure is a common condition in which the long-term force of the blood against your artery walls is high

enough that it may eventually cause health problems such as heart disease. High blood pressure can damage the heart and coronary arteries and lead to heart attacks, strokes and death, among other events.

Lowering blood pressure, therefore, should reduce the number of heart attacks, strokes and deaths. So strongly do physicians subscribe to this theory that they write millions of blood pressure lowering medication prescriptions annually, worth billions of dollars, including 36 million prescriptions for Atenolol in 2010.

Atenolol recorded $161 million in 2014 sales.

Unfortunately comparative study hard outcomes do not always support the theory.

Start in 2002 with publication of the LIFE study on two of the most commonly prescribed blood pressure lowering medications called beta blockers, Losartan and Atenolol. Atenolol placed 2nd in preventing heart attacks and strokes.

Was that because Losantan was superior or because Atenolol was actually ineffective?

That question was answered in a 2004 meta review (a compilation that integrates results from several different studies to develop a single conclusion) in the Lancet entitled ‘Atenolol in hypertension: is it a wise choice?’

Those reviewers found that

> there were no outcome differences between Atenolol and placebo in the four studies, comprising 6825 patients, who were followed up for a mean of 4.6 years on all-cause mortality, cardiovascular mortality, or myocardial infarction [heart attacks].

The PubMed abstract summary concludes:

> Our results cast doubts on atenolol as a suitable drug for hypertensive patients.

The theme was then picked up in the March 15, 2005 issue of The American Family Physician, a publication of the American Association of Family Physicians. Dr. Henry Barry’s article ‘Should Atenolol Be Used for Hypertension?’ concluded that, though atenolol did lower blood pressure,

> It does not appear to reduce the rates of cardiovascular mortality or morbidity.

Let’s summarize:

- One major, high quality comparative study in 2002 concluded Atenolol is ‘inefficient’
- A large meta study in 2004 concluded ‘no outcome differences’ as compared to a placebo and cast doubts on Atenolol as a suitable drug for hypertensive patients.

- At least one article in a professional publication in 2005 seriously questioned the use of Atenolol.
- Five years later, docs wrote 36 million Atenolol prescriptions and nine years later Atenolol achieved $161 million in annual sales.

Medically literate folks – the ones who ask the questions in this book – could have saved those millions of dollars by avoiding Atenolol.

Would they have made wise decisions?

In January 2017, Cochrane released an update on beta blocker research. Cochrane researchers reviewed all relevant beta blocker studies published through June 2016, most of which focused on Atenolol. Their conclusions were entirely in line with the research discussed above, specifically that beta-blockers have little to no effect on heart attacks or mortality and are inferior to other anti-hypertension drugs.

I hope you're beginning to understand why you need to ask 'has it been tested for the outcomes that concern me?' about every medication. Even for medications that have been around for a long time.

Ezetimibe, a cholesterol lowering drug. Lower cholesterol is associated with fewer heart attacks. Ezetimibe, typically marketed as Zetia, blocks cholesterol absorption in the small intestine, unlike the more commonly prescribed statins that block absorption in the liver.

- Some patients can't tolerate statins.
- Others might not achieve their desired cholesterol reduction goals with statins and lifestyle changes alone.

Ezetimibe offers benefits to both types of patients. Consider this statement on Zetia's website, zetia.com from about 2011 – 2016.

Adding Zetia to a statin is proven to help reduce cholesterol more than a statin alone.

Zetia's sales exceeded $3 billion annually from 2013 - 2016.

But read the next sentence on Zetia.com, this one in bold:

Unlike some statins, Zetia has not been shown to prevent heart disease or heart attacks.

The New York Times review of Zetia's 2008 clinical trial, for example, concluded that no trial has ever shown that it can reduce heart attacks and strokes.

Note the difference between cholesterol lowering (Zetia has been shown to be good at this) and heart attack prevention (Zetia has not been shown to be good at this).

Then in 2014, the IMPROVE-IT study showed a ‘modest’ though statistically significant benefit of Vytorin (combination of Zetia and Zocor, a statin) over a statin only, but just for a very select group: patients who had already suffered a heart attack or experienced chest pain.

This underscores the need to ask your doctor regularly ‘Has it been tested for the outcomes that concern me?’ Be clear about the outcomes that concern you – heart attack reduction or cholesterol lowering. They’re not necessarily the same.

- Patients who conflated the two and focused on Zetia.com’s first claim that Zetia reduces cholesterol might have opted to take the medication but then only have received the cholesterol lowering benefit, not the heart attack reduction one. On the other hand
- Patients who relied only on the website’s second sentence ‘Zetia has not been shown to prevent heart disease or heart attacks’ - and who had previously had a heart attack - might have missed the heart attack prevention benefit discovered in 2014.

See why being medically literate is so important?

Vertebroplasty to relieve back pain Let’s switch focus now from medications to procedures. Consider vertebroplasty, a procedure to inject medical grade cement into fractured vertebra (back bones) to reduce back pain.

In 2008, the US market for vertebroplasty was $245 million.

Then in 2009 the New England Journal of Medicine published two studies comparing vertebroplasty to a control or placebo group that received lidocaine (a topical skin numbing agent), massage and aromatherapy to reproduce operating room smells.

- The Australian study found ‘no beneficial effect’ of vertebroplasty compared to the control group.
- The Mayo study concluded that patient improvements were similar in the placebo and experimental groups.

Vertebroplasty, in other words, worked as well as, but no better than, the safer and far cheaper placebo.

$245 million on a procedure that works no better than a placebo?

See why asking the ‘has it been subjected to comparative studies?’ question is so important?

Surgery for Knee Osteoarthritis Knee osteoarthritis is a degenerative disease that causes pain, stiffness and decreased knee function.

Arthroscopic surgery, including lavage (removal of particulate material such as cartilage fragments and calcium crystals) and debridement (surgical smoothing of articular surfaces and osteophytes) was the widely used treatment in the early 2000s despite the fact that, according to the New England Journal of Medicine in 2008 'scientific evidence to support its efficacy is lacking'.

Estimates of the number of knee arthroscopies performed annually in the US vary, and not all address osteoarthritis so we'll have to estimate the size of this problem:

- A 2002 New England Journal of Medicine study estimated 650,000 procedures at $5,000 each, creating a $3.25 billion market.
- A 2014 NEJM study estimated the market at 500,000 knee arthroscopies at about $20,000, generating a $10 billion market.
- Vinay Prasad in his 2015 book Ending Medical Reversal estimated the market at 700,000 patients spending $4 billion.

How poorly does the scientific evidence support the efficacy of arthroscopic surgery to treat knee osteoarthritis?

- A 2008 New England Journal of Medicine published study concluded that they 'failed to show a benefit of arthroscopic surgery for the treatment of osteoarthritis of the knee.'
- This followed a 2002 comparative study which concluded 'At no point did [the] arthroscopic-intervention group have greater pain relief than the placebo group.'
- The 2002 study concluded 'This study provides strong evidence that arthroscopic lavage with or without debridement is not better than and appears equal to a placebo procedure in improving knee pain and self-reported function.'

Those disagreeing with these study conclusions present the usual 'weak study methodology' case, primarily, I would suggest, to protect their incomes. Even at our lowest market estimate - $3 billion – that's certainly a big incentive for lots of people to protect their turfs.

These studies raise some uncomfortable questions:

- Why, after the 2002 paper, did doctors continue to prescribe this procedure and patients have it?
- Why after the 2008 study did both parties continue to use it?

This is an extension of Prasad's Law that says treatments adopted absent testing are proven ineffective or harmful about half the time. Here we have treatments used even after studies showed no patient benefit, underscoring the need for you to ask this question and insist on a clear answer about every medication and procedure.

Asking encourages your doctor to check (again?).

Never hurts but may help.

A lot!

Rest after heart surgery, an historical example to tie all this together.

We'll start in the early 1900s with Dr. James Herrick's advice then fast forward to today's protocols.

Herrick was an extraordinarily influential coronary care researcher who received impressive accolades from both the Association of American Physicians and the American Medical Association.

In his major 1912 paper, Herrick wrote that, after having a heart attack or heart surgery 'the importance of absolute rest in bed for several days is clear'.

Herrick's recommendations were adopted by most hospitals. Over time they extended Herrick's advice of absolute bedrest from several days to a few weeks.

Indeed, thirty four years after Herrick's paper, Dr. Thomas Lewis published his own coronary care textbook Diseases of the Heart and elaborated on Herrick's prescription:

Rest in bed should continue for 4 – 6 weeks to ensure firm cicatrisation of the ventricular wall … Patients have lost their lives … by neglect of these precautions.

Lewis' justification came from pathological studies showing that it can take 6 to 8 weeks for firm scarring of the lesion to occur. Rest for that amount of time was considered necessary to minimize ventricular rupture risks.

Dr. Paul Woods, another coronary care authority, reinforced that message in his textbook Diseases of the Heart and Circulation in 1959, 13 years later, recommending 3 – 6 weeks of bedrest or more depending on the severity of the heart attack.

Thus at least three medical textbooks written between 1912 and 1959 agreed: post heart attack and heart surgery, patients should rest, pretty much for as long as possible.

But by the 1960s medical opinion reversed. Eugene Braunwald, author of his own 2007 cardiology textbook, claims doctors began to realize that

Prolonged bed rest, which had been routine since Herrick's day, could actually be harmful in some patients by leading to venous thrombosis and fatal pulmonary thromboembolism. In uncomplicated cases, the duration of absolute bed rest was shortened to about five days.

Patients who asked 'what do you recommend doc?' in the 1940s and 50s would have received the long bedrest recommendation.

But patients who asked the same questions in the 1960s and 70s would have received the short bedrest advice.

And today, patients are advised to walk every day during the first 6 – 8 weeks post heart surgery, the exact opposite of Herrick's, Lewis's and Woods' recommendations.

How can 'rest' and 'don't rest' both be right? They obviously can't. At least one is wrong. Drs. Herrick, Thomas and Woods offered their best guesses backed up with biological justifications. In effect, they said 'our best guess is that the risk of ventricular rupture exceeds the risk of venous thrombosis and fatal pulmonary thromboembolism.'

Their guesses were really testable propositions which, apparently, weren't actually tested until relatively recently. When tested, they learned that thrombosis risks exceed ventricular rupture risks. Thrombosis and embolism risks are so high in fact that today's patients are advised not even to stand in one place for more than 15 minutes! The exact opposite of Herrick's, Thomas's and Woods' advice.

That's why wise patients don't research why a specific medical recommendation makes sense. Doctors and scientists can justify a wide range of (often conflicting) recommendations, just as we've seen here. Prasad's Law tells us that absent testing for specific outcomes of concern, those recommendations are wrong about half the time.

Instead of relying on theory, wise patients rely on test data, the facts.

The tragedy of this story is that some heart attack recovery patients presumably died in the last century from following the established protocols and textbook advice.

They didn't ask if the recommendations had been tested.

****

Dozens, hundreds, perhaps even thousands of other 'makes sense but doesn't work' situations exist. Here are some relatively-easy-to-understand additional examples of Prasad's Law from his book Ending Medical Reversal.

- Estrogen replacement to reduce heart attacks in postmenopausal women. Testing showed no heart attack rate reduction.
- Coronary stent insertion to prevent heart attacks in patients with stable angina. Testing showed no impact on heart attack rates over time.
- Prophylactic antibiotics for people with persistent Lyme disease symptoms and a history of Lyme disease. Testing showed no symptom reduction.
- Lowering diabetic's blood sugar (A1c) below 7% to prevent heart attacks with an intensive drug regimen. Testing showed an increase in mortality rates.
- Calcium plus vitamin D to reduce the risk of hip fractures. Testing showed no hip fracture rate reduction but an increase in kidney stone risk.
- Withholding birth control pills for women with lupus to reduce the rate of lupus flares. Testing showed no increase in flares.

- Saw palmetto for benign prostatic hyperplasia. Testing showed no benefit measuring multiple outcomes despite more than 2 million men using it.

****

ChoosingWisely, a program organized by the American Board of Internal Medicine Foundation to combat wasteful, unnecessary and harmful medical care lists 300+ more examples of medical practices that, according to testing, should not be used. ChoosingWisely is a wonderful resource for well informed patients. Here are a few examples for illustration purposes.

Don't automatically use CT scans to evaluate children's minor head injuries.

Avoid doing stress tests using echocardiographic images to assess cardiovascular risk in persons who have no symptoms and a low risk of having coronary disease.

Don't perform EEGs (electroencephalography) on patients with recurrent headaches.

Don't routinely treat acid reflux in infants with acid suppression therapy.

Don't recommend prolonged or frequent use of over-¬the-¬counter (OTC) pain medications for headache.

Don't routinely prescribe antibiotics for inflamed epidermal cysts.

Don't use systemic (oral or injected) corticosteroids as a long-term treatment for dermatitis.

****

When you ask 'has it been tested for the outcomes that concern me?' you may learn how well it works. In that case you and your doctor can determine if the benefits are substantial enough, and risks low enough, for you to have the treatment. I'll show you how in the next section.

But you may learn that the treatment has not been tested in real life, on real people.

In that case, remember Prasad's Law.

Applying Prasad's Law to long term medication use

Some medications may have been tested for 1 year, say, but be prescribed for longer. What are the 8, 15 or 20 year effects, both positive and negative? We often don't know.

This is a version of Prasad's Law. In this case, the untested treatment is the time horizon. A medication with few side effects over 6 months may have major side effects over 10 years.

You can rephrase the testing question to 'Has it been tested for the length of time that I'm likely to be on it?'

Summary of Question 1
What We Have Learned So Far

Comparative tests tell us how well medical interventions work.

Wise patients ask ‘Has it been tested for the outcomes that concern me?’ and base their medical decisions on comparative test results. I’ll show you how in the next section.

Importantly, we also learned that interventions that make biological and anatomical sense are shown to be ineffective or harmful about half the time in comparative tests.

Patients who base their medical decisions on biology and logic – but not test results – are wrong about as often as they’re right.

Question #2
Out of 100 people like me, how many benefit and are harmed?

Determining how well care works from medical tests

Once you learn that a treatment has been tested, you and your doctor can discuss the impact. Use this phrasing:

- Out of 100 people like me, how many benefit? And
- Out of 100 people like me, how many are harmed?

This tells you how well the treatment works in testing circumstances. We’ll discuss how well it may work in real life circumstances in the next chapter.

****

Ask ‘out of 100’ to get a number for your answer. ‘16’ conveys more information than ‘some’, ‘many’, ‘a few’ or ‘quite a few’.

Some patients may decide that 16 people benefiting is good enough to have the treatment while others say ‘only 16? That’s not very many.’ Different people can reasonably disagree.

Statements like ‘this treatment cuts your risk by 36%’ don’t answer the question! 36% of what? Percentage answers may confuse more than they illuminate.

Remember that Prasad’s Law applies if your doctor can’t answer the ‘of what’ question above.

Ask about ‘people like me’ because treatments can have different impacts on different demographic groups. Consider these examples.

Age: The American Academy of Pediatrics recommends against prescribing cough and cold medications for respiratory illnesses in children under 4 saying ‘these products

offer little benefit to young children and can have potentially serious side effects'. They're apparently fine for 6 or 8 year olds though.

… out of 100 people … these medications work, but

… like me … not if you're under 4 years old

Gender: In 2014, the Food and Drug Administration cut the recommended dose of Ambien, a sleep aid, in half for women after determining that men and women metabolize it differently. Women, it turns out, have more of the drug in their bodies the next morning, putting them at higher risk of impaired driving.

… out of 100 people … the medication works, but

… like me … not so well for women

Other patient differences exist but we don't always know how frequently. You and your doctor may have to estimate the impact on people like you.

Identify the benefits of interest to you. If you take a heart attack prevention medication ask 'out of 100 people like me, how many avoid a heart attack by taking this medication?'

- Remember our discussion of Atenolol and Zetia in the last section.

If you want to reduce your back pain, ask 'out of 100 people like me, how many enjoy less back pain as a result of this procedure?'

- Remember our discussion of vertebroplasty and knee surgery in the last section.

Beware of listing 'lower my cholesterol' or 'lower my blood pressure' as the benefit you hope to achieve. We discussed earlier how these 'test benefits' may or may not correlate closely to 'patient' or 'event' benefits. Focus on the benefits you hope to achieve.

And be as specific as possible.

Some case studies to indicate the power of asking this question

Out of 100 people like me, how many benefit and are harmed?

Consider antibiotics to treat pediatric ear infections, a quite common childhood problem. Ear infections can be painful to the child and frightening to the parents who, not unreasonably, want to do something to help.

Ear aches are sometimes viral and sometimes bacterial. Doctors often prescribe antibiotics.

This intervention – antibiotics to treat pediatric ear aches - has been studied so Prasad's Law doesn't apply.

A meta review – that's a compendium of several individual studies – of 15 studies on 4100 kids concluded that 6 in 100 who took antibiotics reported less ear pain after 2 – 7 days; 94 in 100 did not enjoy less ear pain as a result of the antibiotics. Most had a complete recovery within 2 – 7 days without the medication.

But 11 in 100 who took antibiotics suffered uncomfortable side effects like diarrhea.

- Out of 100 kids who take antibiotics to treat ear infections, how many benefit by enjoying less ear pain in 2 – 7 days? 6
- Out of 100 kids who take antibiotics to treat ear infections, how many are harmed by diarrhea or other uncomfortable side effects? 11

Now you have sufficient information to discuss this intervention with your pediatrician. Does it work well enough for your child? Some parents may decide yes, others no.

But in both cases, it's an informed decision made by a parent in light of the facts.

Dozens of similar cases exist. One website www.TheNNT.com lists about a hundred. ChoosingWisely www.ChoosingWisely.org takes a slightly different approach and lists hundreds more. Both sites will provide good information for you to discuss with your doctor.

Out of 100 people like me how many benefit and are harmed?

We already discussed how age and gender can impact outcomes. I'd like to explore a different, infrequently discussed but vitally important like me category: social status.

I'll define social status ambiguously as a combination of wealth, income and sense of control over your life, analogous to the way former US Supreme Court Justice Potter Stewart defined pornography: you know it when you see it.

The Whitehall studies in Britain first identified and quantified social status' impact on health. These studies tracked disease and death rates by job and rank in the British civil service and their conclusions have been reproduced in other studies, in other countries.

Whitehall found that low social status folks had higher disease and death rates than high status folks. Surprisingly – and this is the big deal - this was not only due to measureable factors like cholesterol, blood pressure, blood sugar, smoking, obesity or exercise rates.

After correcting for those factors, the lowest status folks were about twice as likely to have heart attacks, develop other diseases and die as the highest status ones.

Whitehall also found a gradient: the higher you are on the social status scale, the lower your disease and death rates and the reverse, the lower you are on the social scale, the higher your disease and death rates.

Over and above specific disease risk factors, Whitehall concluded, there is something about social status independently that impacts people's health. Harvard School of Public Health Professor Nancy Kreiger, whose own work affirms Whitehall's conclusions, put it this way:

> An individual's health can't be torn from context and history. We are both social and biological beings—and the social is every bit as "real" as the biological.

In line with this analysis, a major 2016 study in JAMA, the Journal of the American Medical Association found that the life expectancy gap

between the richest 1% of Americans and the poorest was about 12 years on a gradient similar to Whitehall's. In an accompanying editorial, Nobel laureate Angus Deaton emphasized the impact of income and social status on health and castigated traditional medical thinking:

The finding that income predicts mortality has a long history… the mortality gradient by income is found wherever and whenever it is sought…but the medical mainstream emphasizes biology, genetic factors, specific diseases, individual behavior, health care, and health insurance.

Consider the medical impacts of your own social status. Imagine your doctor says 'your cholesterol level is slightly high. The guidelines suggest lowering it. I'll prescribe a medication.'

- If you're a low status person (thus facing higher than average heart attack risks) you may be undermedicated, leaving you exposed to disease harms.
- But if you're a high status person (thus facing lower than average heart attack risks) you may be overmedicated, exposing you unnecessarily to medication harms.

Try to include social status factors in your 'like me' discussions with your doctor along with age, gender, general health status, family history etc. One good information source is the 2004 report 'Work, Stress and Health: The Whitehall II Study'. Share it with your doctor. It's surprisingly easy to read and it may change the way you think about medical care.

It certainly did for me.

'Out of 100 people like me…' or 'The guidelines say…'
Case study of hypertension

The American Heart Association recommends that people over 60 years old begin treatment for high blood pressure when their readings exceed 150/90.

But out of 100 people like that, how many benefit by following those guidelines?

Some answers come from a 2009 Cochrane report that summarized 15 trials totaling 25,000 subjects over age 60 with moderate to acute hypertension followed for average 4.5 years.

Out of 100 people over 60 years old with moderate to acute hypertension, how many avoid cardiovascular disease or death over 4.5 years?

Answer: About 4

Here are Cochran's numbers:

- Risk of cardiovascular death or disease without taking hypertensive medication: 14.9/hundred. This is the control group.
- Risk of cardiovascular death or disease among patients taking hypertensive medications: 10.6/hundred. This is the test group.
- Medication benefit: 4.3 fewer deaths or diseased patients/hundred (4.3%)

I don't know how many, if any, were harmed by the medication.

Which question gives you the best information and best helps you make the wisest decision: 'Out of 100 people like me, how many benefit?' or 'What do the guidelines say?'

It's your call.

Summary of Question 2
What We Have Learned So Far

Question 2 builds upon the lessons of Question 1.

Question 1 was 'Has it been tested for the outcomes that concern me?' We learned that comparative tests identify the benefits and harms of a medical intervention.

- Importantly, we also learned that medical interventions that have not been subjected to comparative testing are ineffective or harmful about half the time. We called this Prasad's Law.

Question 2 showed how to quantify the benefit and harm impacts. We learned to ask

- Out of 100 people like me, how many benefit? And
- Out of 100 people like me, how many are harmed?

We also learned

- Why to ask ‘out of 100’ and not to accept answers like ‘this treatment reduces you risk by 36%’.
- Why to ask about ‘people like me’, including about people in your socio-economic demographic.
- Why ‘patient outcomes’ always matter but ‘test outcomes’ may not.

Question #3
Is it overused?

Sometimes beneficial care is overused so may not benefit you

This question acts as a yellow warning light to wise patients: proceed but proceed cautiously.

****

Testing sometimes shows that a treatment works well on a narrowly specified group of patients but, in the real world, doctors may offer it more widely, perhaps hoping to benefit even more patients.

Examples include mastectomies, back surgery, c-sections (I’ll discuss these three in some detail below), tonsillectomies, antibiotic prescription, prostate surgery, MRI use, coronary angioplasty and many more.

This results in treatment variation meaning that different doctors may treat similar patients differently.

Vast amounts of research into this phenomenon have identified three significant issues.

First, about 85% of the time, two or more treatments can generate the same patient outcomes.

Mastectomy or lumpectomy for early stage breast cancer, surgery or physical therapy for back pain, injections or physical therapy for frozen shoulder, etc. Though the outcomes may be the same, the process, pain, risk, recovery period, family impact and cost can vary widely.

Second, when faced with care options, many patients delegate decision making to their doctors. This forces the doctor’s preferences, not the patient’s, to define the treatment decisions and doesn’t always serve the patient’s best interests.

We’ll explore some implications in Question 4, the next section.

Third, the higher the supply of medical services in a region, the more frequently patients access those services: the more hospital beds, the more hospitalizations, the more MRI units, the more MRI tests, the more orthopedic specialists, the more orthopedic surgeries etc.

We'll discuss some implications in this section.

Excessive utilization raises costs and risks but doesn't improve patient outcomes. It may even worsen them since patients expose themselves only to potential treatment harms, not benefits.

We'll explore three case studies of treatment variation. Two are based on Dartmouth Atlas of Healthcare information: early stage breast cancer treatment in Massachusetts and Connecticut and back surgery in southwestern and southeastern Florida. The third is hospital baby delivery patterns, specifically c-section rates.

These are 3 of dozens I could have chosen. As you read them, consider how patients who have the more aggressive, excessive and overused treatments may actually end up worse off.

Case Study: Mastectomy Rates in Massachusetts and Connecticut

Female Medicare beneficiaries in Connecticut, using Connecticut hospitals, get about 40% more mastectomies per 100,000 than do similar women in Massachusetts. This has been roughly constant since 2008.

How can we determine if these surgical rate differences are driven by patient health differences or physician treatment orientation differences?

We'll first consider patient differences. The American Cancer Society tracks cancer incidence and mortality rates by state. They show that the breast cancer incidence rates for 2011 per 100,000 women are virtually identical in both states:

Based on breast cancer incidence rates alone the treatment variation appears driven by physician orientation, not patient disease rate differences.

Did the Connecticut women benefit from more mastectomies?

The American Cancer Society also tracks breast cancer mortality rates in each state. That's the rate at which women die of breast cancer. Again, they're virtually identical in both states.

If the higher rate of mastectomies in Connecticut from 2008 – 2011 generated patient benefit, we would expect to see lower Connecticut breast cancer mortality rates in 2011-2012 than in Massachusetts. That didn't happen.

Women asking the standard treatment questions – is this a good treatment? Do you get good results? Would you recommend this treatment for your wife, daughter or sister? – would get the same answers in Massachusetts and Connecticut.

But the Connecticut women wouldn't avoid those additional mastectomies.

The higher mastectomy rate in Connecticut generates no patient mortality reduction benefit. It only raises patient risks and costs.

Asking the ‘is it overused in this hospital or region’ question would help motivate physicians and well informed patients to review these kinds of data.

Follow up with ‘out of 100 women like me, how many benefit and are harmed by mastectomies?’

Really well informed women might also ask ‘would most physicians make the same treatment recommendation or might some suggest something different?’ I’ll introduce that question in the next chapter.

Case Study: Back Surgery in Florida

Medicare beneficiaries in southeastern Florida, around Miami, are about half as likely to have back surgery as Medicare beneficiaries in southwestern Florida, around Fort Myers.

Are retirees in Miami medically different from retirees in Fort Myers? John Wennberg, founder of the Dartmouth Atlas and professor emeritus at the Geisel School of Medicine at Dartmouth, answers with a resounding ‘no’ saying

There is no epidemiologic evidence that illness rates vary as sharply from one health care region to another as does surgery.

Do retirees in Miami prefer more aggressive care than retirees in Fort Myers? In other words, do Miami patients routinely ask for physical therapy for their back pain while Fort Myers patients typically ask for surgery?

Again ‘no’ but this time from Dr. James Weinstein, former Chairman of the Orthopedics Department at Dartmouth’s Geisel School of Medicine who has studied treatment variation for years:

It's highly improbable that Medicare retirees living in Fort Myers prefer back surgery two times as often as residents of Miami.

What causes the treatment variation? Wennberg again provides the answer:

Doctors decide who needs health care, what kind, and how much.

And the key patient benefit question: Do retirees in Fort Myers benefit from the extra back surgeries? In other words, do Miami retirees suffer unnecessarily from receiving too few back surgeries?

Though I was unable to find solid academic studies that specifically answer this question (!), Dr. Elliott Fisher and his Dartmouth colleagues addressed this issue in general in their massive 2003 study, ‘The Implications of Regional Variations in Medicare Spending’. One observation, paraphrased for readability here:

For every 10% increase in medical spending, the relative risk of death increased.

In none of the regions studied did the higher per capita expenditures lead to a statistically significant mortality decrease.

In other words more care, or care above the minimum available in any US region, led to more harm not more benefit.

Wise patients don't stop their questioning when they learn that a treatment is beneficial, as spinal surgery and mastectomy sometimes are.

Wise patients want to ensure that the treatment provides benefit to them. That takes additional questioning.

Acceptable and Unacceptable Answers to 'Is it overused?'

Acceptable answers include 'yes', 'no' and 'I don't know'. All can lead to a useful, additional discussion.

Unacceptable answers include 'we never perform unnecessary back surgery.' Fort Myers orthopedists and Miami orthopedists would say this about as frequently!

So would Connecticut and Massachusetts oncologists.

See the somewhat-famous-party-trick discussion coming up for further explanation.

Case study: C-section delivery rates at different hospitals

C-section rates vary tremendously among hospitals and regions. Some hospitals routinely deliver 40% or more of babies by c-section while others deliver 20% or less.

Similarly some states exhibit far higher average c-section rates than others.

We'll start our analysis with a 2011 New Hampshire Insurance Department study 'A commercial study of vaginal delivery and cesarean section rates at New Hampshire hospitals' that showed c-section rates varied between 15% and 47% of deliveries by New Hampshire hospital. That study concluded

There are no obvious reasons that explain why c-section rates are higher at one NH hospital than another …

there does not appear to be a relationship between c-section rates and health status among hospitals …

statistics show essentially no relationship between hospital population health and health status and c-section rates.

The NH study did not note outcome differences among hospitals suggesting similarity. (Major outcome differences would have been headline news and almost certainly included in this study.)

That raises the question: Do hospitals that perform more c-sections on similar populations generate healthier babies?

A second 2011 study addressed that, this time of 30,000 births at 10 upstate New York hospitals without specialized neo-natal intensive care units but with varying c-section rates. It found no difference in outcomes for babies born in the hospitals with the highest c-section rates and those with the lowest when outcomes are measured by Apgar scores, need for assisted ventilation, or need to move to intensive care hospitals.

Two studies, both showing different c-section rates by hospital without apparent patient health reasons or outcome differences.

Fast forward to 2013 and consider the conclusion of a Harvard School of Public Health study of 228,000 births in 49 different Massachusetts hospitals:

The same woman would have a different chance of undergoing a c-section based on the hospital she chooses …

Certain hospitals' high rates of cesarean births have more to do with characteristics of the hospitals themselves than with characteristics of their patients.

Harvard goes on to issue this caution:

While c-sections can be a lifesaving procedure for an infant in distress, or when there are multiple births or other labor complications, c-sections that are not medically necessary can put mothers and babies at avoidable risk of infection, extend hospital stays and recoveries, and increase health costs.

Again a beneficial medical intervention is overused and when 'not medically necessary' (Harvard's words) puts patients at unnecessary risk.

The same year, 2013, a different study by Dr. Katy Kozhimannil and others of 817,000 births in 593 hospitals nationally arrived at the same general conclusion. Kozhimannil found that c-section rates varied from 7 to 70 percent of all deliveries by hospital and suggested that provider practice patterns were a key driver of this rate variation.

Surgical variation rates were not, according to Kozhimannil, explained by hospital size, geographic location or teaching status…

The scale of this variation signals potential quality issues that should be quite alarming to women, clinicians, hospitals and policymakers.

More or less like the New Hampshire study, the New York study and the Harvard study.

Four different studies arrived at the same conclusion: c-sections benefit some patients but are overused so may not benefit – and may even harm – others.

To summarize:

- The hospital that you choose has a significant impact on your likelihood of delivering by c-section.
- Hospitals with the highest c-section rates don't necessarily serve the sickest, most at-risk populations.
- C-section rates vary significantly even among low risk mothers.
- Hospitals performing the highest rates of c-sections do not generate better outcomes than hospitals performing lower rates.

These treatment variation situations get replayed for dozens of procedures including

- tonsillectomies
- coronary stent insertions
- heart valve replacements
- referrals for CT scans
- hip replacements
- radical prostatectomies, and others.

Dartmouth researchers estimate that if you add all the excesses above the minimum, for lots and lots of procedures, you'll arrive at about 1/3 of all medical spending. I'd recommend that anyone interested in this topic visit the Dartmouth Atlas website and click around. It's packed with fascinating, potentially life-saving information.

A somewhat famous medical party trick story
showing that even great doctors in great hospitals practice differently

John Wennberg, more or less the godfather of treatment variation analytics in this country, performed a party trick of sorts to show how doctors practicing at highly regarded hospitals can treat similar patients differently.

He used Boston, home to Harvard Medical School affiliated teaching hospitals, and New Haven, home to Yale Medical School affiliated hospitals, as his case study.

Wennberg learned that Boston area patients spent about 40% more time in the hospital:

- A Boston patient suffering from gallstones would be 40% more likely to be hospitalized than a similar patient in New Haven.
- A patient hospitalized for surgery that required 1 night in a New Haven hospital would often have spent 2 nights in a Boston hospital.

He wondered if the New Haven docs felt they undertreated patients or if Boston docs thought they overtreated. When asked, doctors in both cities claimed to treat patients appropriately.

Which were right? They can't both be.

To answer that question, Wennberg presented his findings at New Haven and Boston medical conferences, but he accidently-on-purpose switched the data!

He showed the Boston docs that their patients spent 40% less time in the hospital and therefore received less care than New Haven patients, and vice versa, and asked for explanations.

- The Boston docs came up with lots of reasons why the New Haven ones erred by overtreating their patients, admitting too many to hospitals and therefore exposing them to unnecessary treatment risks and financial costs.
- The New Haven docs explained why the Boston ones erred by undertreating their patients, admitting too few to hospitals and therefore exposing them to unnecessary disease risks.

Wennberg then admitted his data mistake and went through the (presumably uncomfortable) analysis of the doctors' faulty reasoning.

The bottom line: though doctors all want to treat appropriately – and claim to - they are often unaware of their own assumptions and treatment patterns.

That's why wise patients always ask our questions and demand answers…

Even from the most experienced doctors who graduated from the most famous medical schools and work at the most prestigious hospitals!

Summary of Question 3
What We Have Learned So Far

Question 3 builds upon the lessons of Questions 1 and 2.

Question 1 was 'Has it been tested for the outcomes that concern me?' We learned that comparative tests identify the benefits and harms of a medical intervention.

- Importantly, we also learned that medical interventions that have not been subjected to comparative testing are ineffective or harmful about half the time. We called this Prasad's Law.

Question 2 showed how to quantify the benefit and harm impacts. We learned to ask

- Out of 100 people like me, how many benefit? And
- Out of 100 people like me, how many are harmed?

Question 3 moved us out of the laboratory and into the real world. We learned that sometimes beneficial medical interventions are overused. We learned to ask

- Is it overused?

Appropriate answers include ‘yes’, ‘no’ and ‘I don’t know’.

Inappropriate answers include ‘we never perform excessive or unnecessary treatments.’

We’ll move now to Question 4 ‘Would most physicians make the same recommendation or might some suggest something different?’ This helps you identify your treatment options.

While always important to ask, this question is particularly critical for patients who learn that the answer to Question 3 is ‘yes, we sometimes perform this procedure too often’.

Question #4
Would most physicians make the same recommendation or might some suggest something different?

How to get and evaluate a second opinion

We learned earlier that patients have care options about 85% of the time. Often two or more treatment processes generate the same patient outcomes.

But the treatment processes can involve quite different pain levels, family impacts, recovery periods, costs and other factors.

Researchers have learned that, for the 85% of care that allows for choice, wise and well informed patients may prefer treatments different from that recommended by their doctors.

And two different patients with the same medical problem can choose different treatments and both be right.

Unfortunately, since patients today often delegate decision making to doctors, physician preference rather than patient preference often determines which treatment patients ultimately receive. That’s not always such a good thing.

Preference-sensitive decision making among patients with access to good information

Various studies have assessed the impact of patient education on preference-sensitive decision making and have generally arrived at the same conclusion: when provided with good information about both outcomes and processes, patients tend to prefer less invasive and lower risk care.

The general trend is about a 20 – 25% shift.

Coincidentally, less invasive / lower risk care tends to be less expensive.

One 2012 study in Washington State found that patients who went through a thorough treatment comparison process had 26% fewer hip replacement surgeries, 38% fewer knee replacements and cost about 15% less than patients who did not go through the same process.

Other studies have indicated

- 20% fewer stent insertions
- 40% fewer prostate removal surgeries
- 40% fewer spinal fusion surgeries for herniated disks

These studies and others suggest that physicians need to diagnose both the medical condition and the patient to prescribe the appropriate intervention. A classic analysis, Patient Preferences Matter, written by two medical school professors and one business school prof, highlights the impact:

> Health care may be the only industry in which giving customers what they really want would save money.
>
> Well-informed patients consume less medicine – and not just a little bit less, but much less.
>
> When doctors accurately diagnose patient preferences, an enormous source of waste – the delivery of unwanted services – is eliminated.

In other words, when doctors assume they know which treatment process a patient wants, they substitute their own preferences for the patient's.

That's not always wise because there's a huge difference between advice giving and advice receiving. The advice recipient may or may not agree with the advice giver.

Here's a list of some potential preference-sensitive considerations that affect physician 'advice givers' differently from patient 'advice receivers'. It's not exhaustive. I didn't include 'success' since it's obviously the most important consideration of both doctors and patients.

Some physician issues and concerns	**Some patient issues and concerns**
Regulations and guidelines	Pain
Fear of lawsuit	Recovery period
Local / regional / hospital norms	Family impact
Income	Self image
Experience with treatment alternatives	Personal preference (e.g. religious)
Avoid feeling guilty	Cost

The question ‘what would you do if you were me, doc?’ is unfair. The physician-advice-giver can’t remove him or herself entirely from the constraints imposed by that role.

How to proceed after getting a second (or even third) opinion

Once you’ve had a second (or third) physician make treatment recommendations, use this chart to compare benefits and harms. Try to fill in as many boxes as possible. Include Treatments C and D as appropriate

	Treatment A	Treatment B
Benefits and harms at intervention		
Benefits and harms over the short term		
Benefits and harms over the long term		

Each patient can define benefits and harms as those most important to him or her, as well as the short and long term. Typically short term means the first few months and long term 3 – 5 years, though you can modify these definitions as you see fit.

Here are some issues in a hypothetical comparison of surgery and physical therapy for illustration purposes only. You may have different concerns.

First, benefits and harms of the intervention.

Surgery	Physical therapy
How long will I be hospitalized?	How many sessions will I need?
How much pain will I feel and for how long?	How much pain is associated with the therapy process?
How much work will I miss?	When will I know if the therapy is working?
How long will I be incapacitated?	
How likely is an infection or complication?	

Second, benefits and harms over the short term.

Surgery	Physical therapy
How long before I regain my strength and range of motion?	How often do patients report satisfaction at 3 and 12 months?
How many patients report satisfaction with the outcomes at 3 and 12 months?	How many patients quit PT and opt for surgery in the short term?
How often do patients need a second surgery?	

Third, benefits and harms over the long term

Surgery	Physical therapy
How many patients need a second surgery within 48 months?	How many patients report satisfaction with the PT outcome at 48 months?
How many patients report satisfaction with the outcome at 48 months?	How many patients who start with PT ultimately end up with surgery within 48 months?

This comparative process isn't limited to surgery and PT: you can use it to compare any medical interventions, though the specific questions in each box may differ.

Try to format your treatment comparisons this way. It will help you focus on the most critical issues and streamline your decision making process.

Feel free to show a chart like this but with your own questions to your doctor. It may facilitate your discussions.

****

Case Study: How John decided on physical therapy for his torn rotator cuff

John, a 69 year old insurance broker, walked up to me in a lecture hall one day with his arms high in the air, smiling and saying 'my shoulder feels fine'.

Odd behavior and greeting in a professional setting. I hadn't seen or talked with him in the previous year or two.

His right shoulder had been so weak, he said, that he couldn't shift gears in his pick-up: he had to reach over the steering wheel with his left hand to shift.

His scans clearly showed a torn right rotator cuff and his orthopedic surgeon recommended surgery. All fairly routine.

But his story then took a surprising turn. I'll quote him:

'I probably would have said yes to surgery prior to hearing your lectures. Instead I asked your questions and decided to try PT first.

I regained 95%+ range of motion without pain in same time period as surgical recovery.

Same outcome as surgery at far lower cost, risk and hassle.'

The key questions:

Out of 100 people like me, how many benefit from, and are harmed by, rotator cuff surgery?

Would most physicians recommend rotator cuff surgery or might some suggest something different?

Interestingly John, a well-educated, knowledgeable, regular attendee at insurance seminars, wouldn't have asked those questions absent specific instruction and a script.

I suspect a similar situation exists for most patients like the Fort Myers back surgery folks and Connecticut mastectomy women we discussed earlier.

They all might have made different choices had they simply been taught to ask the right questions.

****

Another patient's experience asking the 'out of 100 people like me' and the 'would most physicians agree' questions.

'Preference-sensitive' applies to physicians too!

A fellow called me with this poignant story one day, completely out of the blue. He had attended a lecture and read my book Transparency Metrics.

I have a good relationship with my cardiologist, so I felt comfortable asking your 'out of 100 people like me' questions. So I did.

He put down his pen, looked at me and said 'no one has ever asked me that. I don't know the answer. Let's figure it out' and he started typing on his computer.

The process of finding answers got me involved and I ended up feeling more comfortable with his treatment recommendations as a result. I feel like I now have an even better working relationship with him than I did before.

I'm also more inclined to comply with his recommendations.

I asked a few questions then he announced 'now I have to tell you about my next experience'.

I asked my dermatologist the same questions including 'would most physicians agree with your recommendation?'

His response: 'you come into my house and ask me those questions? If you don't trust my judgment, I think you should get another dermatologist.'

Different doctors for different patients.

Preference sensitive works for physician choice also.

Choose the doctor whose style and professional demeanor work for you.

Summary of Question 4:
What We Have Learned So Far

Question 4 builds upon the lessons of Questions 1, 2 and 3.

Question 1 was 'Has it been tested for the outcomes that concern me?' We learned that comparative tests identify the benefits and harms of a medical intervention.

- Importantly, we also learned that medical interventions that have not been subjected to comparative testing are ineffective or harmful about half the time. We called this Prasad's Law.

Question 2 showed how to quantify the benefit and harm impacts. We learned to ask

- Out of 100 people like me, how many benefit? And
- Out of 100 people like me, how many are harmed?

Question 3 moved us out of the laboratory and into the real world. We learned that sometimes beneficial medical interventions are overused and learned to ask

- Is it overused?

The answer helps identify at least one critical reason for asking Question 4 'Would most physicians make the same recommendation or might some suggestion something different?'

There are several additional reasons for posing this question to your physician including:

- It helps you get a second opinion that differs from the first thus exposing you to a range of treatment options.
- It helps you differentiate personal preferences from medical imperatives.

Once you identify the treatment option that you prefer, you'll want to identify the physician and hospital that does it the best. Ask Question 5 'How many patients like me do you treat annually?'

Question #5:
How Many Patients Like Me Do You Treat Annually?

The more experience a specialist or hospital has treating patients with your medical condition, the better your likely outcomes

Research has identified a pretty strong (but not perfect!) correlation between the volume of similar patients treated by a specialist or hospital and the outcomes for those patients: The higher the volume, the better your chances.

This is not a perfect predictor but it's about the best predictor currently available.

One classic study on the impact of hospital volume on mortality rates was published by Dr. John Birkmeyer of the Dartmouth-Hitchcock Health System and his colleagues. They analyzed the impact of hospital volume on mortality rates for 2.5 million patients who underwent 14 different medical procedures over a 5 year period.

Patients, they concluded, can significantly reduce their operative mortality risk by choosing a high volume hospital. Though the specific mortality rate reduction varied by procedure, Birkmeyer and his colleagues identified a surgical quality gap between high and low volume hospitals.

They concluded three things about this gap:

First, it is large enough to concern patients.

Second, it is consistent across different medical specialties and research studies, and

Third, it makes sense. High volume hospitals, they reason, tend to have more consistent processes for postoperative care, better-staffed intensive care units, and greater resources for dealing with postoperative complications.

Other research pretty strongly supports Birkmeyer's conclusions:

A 2011 study of heart failure patients estimated that 20,000 lives could be saved annually if patients at low volume hospitals switched to high volume hospitals.

A study of bariatric surgery found that hospitals treating more than 100 patients annually had shorter lengths of stay, lower mortality rates and decreased costs. In particular, bariatric surgical mortality rates at low volume hospitals were up to 3x higher than at high volume hospitals for patients over 55 years old.

A 2013 study of high risk patients found those undergoing aortic valve replacement at high volume hospitals enjoyed better outcomes.

Studies of breast cancer treatment, knee surgery and other medical care finds pretty much the same things.

By contrast, studies comparing patient outcomes from newer vs. older technologies, or from academic medical centers vs. other hospitals, do not always find such a gap.

One such newer vs. older technology study found that physicians need to perform 1600 robotic assisted prostate removal surgeries to achieve excellence. Experience with the technology, often more than the technology itself, correlates with quality outcomes.

We find the same thing for surgeons – the higher their volume of a particular type of surgery, the better their outcomes. Dr. Paul Ruggieri summarized the literature on this topic in Chapter 5 of his book The Cost of Cutting:

> The message is becoming clearer with each published study. High volume surgeons operating out of high volume hospitals give patients the best chance for quality outcomes.

Based on the data, the high volume surgeon part of the equation seems to be the most important factor.

Ruggieri, a surgeon, might be slightly biased.

But Birkmeyer, the Dartmouth physician, agrees with Ruggieri's assessment, concluding that patients can improve their chances of survival substantially, even at high volume hospitals, by choosing high volume surgeons.

Thresholds

Some organizations publish 'thresholds' or recommendations for the minimum experience a surgeon or hospital needs to achieve excellence. Treating fewer than the threshold number of patients tends to increase mortality rates but treating more doesn't decrease those risks.

The Leapfroggroup, for example, has developed hospital threshold recommendations for several procedures such as

- Coronary artery bypass graft, minimum 450 procedures/year.
- Abdominal aortic aneurysm repair, minimum 50 procedures/year.
- Percutaneous coronary intervention, minimum 400 procedures/year.

Johns Hopkins, Dartmouth-Hitchcock and the University of Michigan go one step further and have developed minimum hospital and surgeon requirements for their affiliated hospitals including

- At least 20 pancreatic cancer surgeries per hospital per year, and at least 5 for each surgeon.
- At least 50 knee or hip replacements per hospital per year, and at least 25 per surgeon.
- At least 10 carotid stent insertions per hospital per year, and at least 5 per surgeon.

John Birkmeyer, the leader of the Dartmouth effort, suggests the impact. If all US hospitals adopted this standard, he says, about half the hospitals that perform many of these procedures would be prohibited from continuing to do them.

Wise patients choose specialists and hospitals working at or above the recommended threshold.

Why is experience so important?

The common sense answer that 'practice makes perfect' is only part of the reason, and the least important part. Physicians learn the process of cutting, suturing, etc. relatively quickly. Though these mechanical skills may improve slightly over time, this doesn't address the significant mortality reduction evidenced by high volume surgeons and hospitals. Few patients, it seems, die from faulty incisions.

Instead, I suggest that the true benefit of dealing with high volume surgeons and hospitals comes from their ability to identify patients who are 'out of bounds' more quickly and address their problems more appropriately. With volume a surgeon can sense, almost even without testing, that something is wrong.

Without the experience that volume brings, the surgeon is unsure if the patient's blood loss or reactions are within the normal range. This applies at a systemic level to hospitals also: nurses and technicians can develop the same sense from experience.

Atul Gawande wrote insightfully about this process in his article 'The Computer and the Hernia Factory', a study of Shouldice Hernia Hospital in Canada. Shouldice only performs hernia surgeries. Each Shouldice surgeon performs about 700 annually or, over their medical career, perhaps 20,000 similar surgeries. Gawande estimated, in 2002, that Shouldice's hernia surgery failure rate was 'an astonishing 1.0%.' He revised that figure in 2008 to 'closer to 0.1%'.

By comparison, some studies suggest an average 10-year hernia repair failure rate outside of Souldice at around 11%.

With repetition, Gawande found, 'a lot of mental functioning becomes automatic and effortless, as when you drive a car'. This allows experienced practitioners to focus on novel or abnormal situations and essentially ignore all that is normal and routine. A surgeon, he writes, for which most activities become automatic has a significant advantage.

He described a Shouldice operation:

- The surgeon performed each step ‘almost absently’
- The assistant knew ‘precisely which issues to retract’
- The nurse handed over ‘exactly the right instruments; instructions were completely unnecessary’
- The doctor slowed down only once, to check ‘meticulously’ for another hernia. He found one that ‘if it had been missed, would almost certainly have caused a recurrence’

This ‘almost absent attention to routine features’ but intense focus on potential abnormalities comes only from experience. That’s why higher volumes identify better quality surgeons and hospitals.

Just like why more experienced drivers have fewer car accidents!

When you consider hiring a specialist or using a hospital, be sure to ask the volume question. It just may save your life.

Summary

Let’s review what we’ve learned:

Patients who follow the Goldilocks principle enjoy better outcomes than patients who do not.

- Too little medical care can expose you unnecessarily to disease harms
- Too much medical care can expose you unnecessarily to treatment harms
- Inappropriate medical care can expose you to more risks, higher costs and lower satisfaction than optimal

We introduced 5 questions to ask all doctors about all medical interventions.

- Has it been tested for the outcomes that concern me?
- Out of 100 people like me, how many benefit and are harmed?
- Is it overused?
- Would most physicians make the same recommendation or might some suggest something different?
- How many patients like me do you treat annually?

You can, of course, ask plenty of your own questions too: you may have specific concerns about pain, cost, time off from work, impact on your family, etc.

But I hope you ask the questions listed here. They'll help you differentiate better from poorer care, reduce your chance of receiving unnecessary and non-beneficial care and increase your likelihood of satisfaction with your own medical care.

Review Questions

Answers on next page

1. What is a comparative study?

    a. A study that compares two very similar groups of people, one of which gets the medical intervention and the other of which does not
    b. A study that looks at only 1 group of people
    c. A study that predicts outcomes based on biological theory
    d. A study that compares the biological and physiological make up of different people

2. What is a well informed patient according to the medical definition of ‘well informed’?

    a. Understanding how well care works, what treatment options exist and which provider generates the best outcomes
    b. Understanding deductibles, insurance regulations and prices
    c. Understanding the biological processes in each treatment option
    d. Someone who reads lots of articles online

3. Which do doctors generally worry about the most?

    a. Performing too few tests and undertreating patients
    b. Having patients wait longer in their waiting rooms
    c. Providing interesting magazines for patients to read
    d. Performing too many tests and overtreating patients

4. Which is the cheapest?

    a. Good health
    b. The lowest cost knee surgeon
    c. A hospital-based MRI
    d. A free-standing MRI

5. Which strategy is generally the cheapest after factoring in all costs including patient out-of-pocket, deductibles, insurance premiums, time off of work, productivity losses and rehab expenses?

    a. Getting the best treatment outcomes
    b. Getting care from the lowest cost surgeon
    c. Paying cash for your treatment
    d. Negotiating the best deal you can with each provider

6. Why would a wise patient ask a physician if a proposed treatment has been subjected to comparative testing?

    a. Because treatments that have not been subjected to comparative testing are ineffective or harmful about half the time

b. Because it makes you sound smart to your doctor
c. Because you want to show your doctor who's really running the meeting
d. Because you want to waste time before making an important decision

7. What is Prasad's Law?

a. Medical treatments that have not been subjected to comparative testing are ineffective or harmful about half the time
b. A hospital room built is a hospital room occupied
c. The most expensive surgeon is the best
d. The most expensive hospital generates the best patient outcomes

8. Which benefits more people?

a. A treatment that prevents heart attacks 3 out of 100 people
b. A treatment that cuts the heart attack rate by 25%
c. A treatment that reduces total cholesterol levels by 10 points
d. We have insufficient information in (a), (b) and (c) above to answer the question

9. Which benefit interests a wise patient the most?

a. A reduction in heart attacks
b. A reduction in cholesterol levels
c. A reduction in blood pressure levels
d. An improvement in blood oxidation rates

10. This chapter suggests that patients who base their medical decisions on biology, physiology, anatomy and logic – but not comparative studies – are what?

a. Wrong about as often as they are right
b. Wise and thoughtful
c. Using the best possible information
d. Likely to enjoy the best outcomes

11. As the number of medical services in a community – like MRI machines, vascular surgeons or hospital beds – rises, what tends to happen?

a. More patients use those services
b. Fewer patients use those services
c. Service prices tend to fall
d. Care quality tends to decline

12. Wise patients sometimes ask if a particular treatment is overused. Which below in an inappropriate answer to that question?

a. Yes
b. No

c. I don’t know
d. I never provide unnecessary care

13. What is a ‘preference sensitive’ medical decision?

a. A decision that’s right *for you*. Different patients with the same medical condition can choose different treatments and all be right.
b. A decision that your doctor would prefer that you make, not him or her
c. Delegating your decisions to your doctor
d. Delegating your care decisions to your hospital

14. What is the general trend among patients who explore their treatment options?

a. They tend to choose less risky, less invasive and consequently less expensive care by about 25 – 30%
b. They get confused
c. They ultimately do what their doctor tells them to do
d. They cost the most

15. What is the main purpose of second opinions?

a. Expose patients to a range of treatment alternatives
b. Waste time
c. Increase physician billing opportunities
d. Confuse patients

16. Which surgeon generally generates the best patient outcomes?

a. The surgeon who does a specific type of surgery most frequently
b. The surgeon who graduated from the most prestigious medical school
c. The surgeon who charges the most
d. The surgeon who uses the newest technology

Review Questions

Correct answers in bold

1. What is a comparative study?

    a. **A study that compares two very similar groups of people, one of which gets the medical intervention and the other of which does not**
    b. A study that looks at only 1 group of people
    c. A study that predicts outcomes based on biological theory
    d. A study that compares the biological and physiological make up of different people

2. What is a well informed patient according to the medical definition of ‘well informed’?

    a. **Understanding how well care works, what treatment options exist and which provider generates the best outcomes**
    b. Understanding deductibles, insurance regulations and prices
    c. Understanding the biological processes in each treatment option
    d. Someone who reads lots of articles online

3. Which do doctors generally worry about the most?

    a. **Performing too few tests and undertreating patients**
    b. Having patients wait longer in their waiting rooms
    c. Providing interesting magazines for patients to read
    d. Performing too many tests and overtreating patients

4. Which is the cheapest?

    a. **Good health**
    b. The lowest cost knee surgeon
    c. A hospital-based MRI
    d. A free-standing MRI

5. Which strategy is generally the cheapest after factoring in all costs including patient out-of-pocket, deductibles, insurance premiums, time off of work, productivity losses and rehab expenses?

    a. **Getting the best treatment outcomes**
    b. Getting care from the lowest cost surgeon
    c. Paying cash for your treatment
    d. Negotiating the best deal you can with each provider

6. Why would a wise patient ask a physician if a proposed treatment has been subjected to comparative testing?

    a. **Because treatments that have not been subjected to comparative testing are ineffective or harmful about half the time**

b. Because it makes you sound smart to your doctor
c. Because you want to show your doctor who's really running the meeting
d. Because you want to waste time before making an important decision

7. What is Prasad's Law?

a. **Medical treatments that have not been subjected to comparative testing are ineffective or harmful about half the time**
b. A hospital room built is a hospital room occupied
c. The most expensive surgeon is the best
d. The most expensive hospital generates the best patient outcomes

8. Which benefits more people?

a. A treatment that prevents heart attacks 3 out of 100 people
b. A treatment that cuts the heart attack rate by 25%
c. A treatment that reduces total cholesterol levels by 10 points
d. **We have insufficient information in (a), (b) and (c) above to answer the question**

9. Which benefit interests a wise patient the most?

a. **A reduction in heart attacks**
b. A reduction in cholesterol levels
c. A reduction in blood pressure levels
d. An improvement in blood oxidation rates

10. This chapter suggests that patients who base their medical decisions on biology, physiology, anatomy and logic – but not comparative studies – are what?

a. **Wrong about as often as they are right**
b. Wise and thoughtful
c. Using the best possible information
d. Likely to enjoy the best outcomes

11. As the number of medical services in a community – like MRI machines, vascular surgeons or hospital beds – rises, what tends to happen?

a. **More patients use those services**
b. Fewer patients use those services
c. Service prices tend to fall
d. Care quality tends to decline

12. Wise patients sometimes ask if a particular treatment is overused. Which below in an inappropriate answer to that question?

a. Yes
b. No

c. I don't know
d**. I never provide unnecessary care**

13. What is a 'preference sensitive' medical decision?

a. **A decision that's right *for you*. Different patients with the same medical condition can choose different treatments and all be right.**
b. A decision that your doctor would prefer that you make, not him or her
c. Delegating your decisions to your doctor
d. Delegating your care decisions to your hospital

14. What is the general trend among patients who explore their treatment options?

a**. They tend to choose less risky, less invasive and consequently less expensive care by about 25 – 30%**
b. They get confused
c. They ultimately do what their doctor tells them to do
d. They cost the most

15. What is the main purpose of second opinions?

a**. Expose patients to a range of treatment alternatives**
b. Waste time
c. Increase physician billing opportunities
d. Confuse patients

16. Which surgeon generally generates the best patient outcomes?

a. **The surgeon who does a specific type of surgery most frequently**
b. The surgeon who graduated from the most prestigious medical school
c. The surgeon who charges the most
d. The surgeon who uses the newest technology

Price transparency and CDH Plans

Dr. Clifton Meador, former dean of the University of Alabama Medical School, issued this caution about the role of financing and prices in American medicine: (references available offline)

> Solutions to the high costs of medical care are almost exclusively financial or payment based [but] the underlying causes are based on misdirected clinical and diagnostic thinking

In other words, Meador cautions us about using financial tools like price lists to address clinical problems.

Dr. Andy Lazris, geriatrician and author of Curing Medicare, agrees, decrying our medical care system that

> pushes the most aggressive care, often despite a paucity of evidence to support that approach …as little as 15% of what doctors do is backed up by valid evidence

Prices can vary dramatically for the same service throughout our healthcare system. 'Transparency' means 'making prices public so people can choose the most economical alternative'. Some say this increases systemic value.

I'm not so sure.

Some pricing examples

Here are some graphic examples of price differences within a relatively small geographic region for the same services. These prices come from the New Hampshire medical price website, nhhealthcost.org, downloaded in 2013 for arthroscopic knee surgery. I chose this website because it was public and easy to use.

Facility	**Total Cost**
Concord Ambulatory Surgery Center	$3,431
Franklin Regional Hospital	$5,118
Cheshire Medical Center	$6,644
Parkland Medical Center	$7,717
Weeks Medical Center	$9,873

Pretty wide variation for the same service. Here are some prices for a pelvic MRI, same website.

Facility	**Total Cost**
Derry Imaging Center	$1,486
St Joseph Hospital	$2,574
Exeter Hospital	$2,758
Speare Memorial Hospital	$3,381
Monadnock Community Hospital	$3,868

Impressive differences. The same situation occurs for dozens of tests and treatments throughout our healthcare system.

Why prices matter (a lot)

Paying too much for a test, medication or treatment *directly* affects two groups of people: individuals / families with high deductible health plans and self insured companies. Both, in an economic sense, function the same way – they spend their own money on medical care. Each dollar saved drops directly to their own bottom line.

Paying too much *indirectly* affects us all by raising overall costs and therefore health insurance premiums.

Thus, the argument goes, considering price generates benefits for us both individually and collectively.

Why prices don't matter (much)

Prices do not tell us

- If we will benefit from the medical care
- If we will be harmed by the medical care
- If we use excellent, average or mediocre providers and treatments.

In short, shopping for medical care primarily based on price can lead patients to cheaper unnecessary or poor quality medical care. And, since it's cheaper, perhaps to *more* unnecessary or poor quality care.

How much unnecessary and poor quality care exists in the US?

The standard estimate of unnecessary care quantity in our healthcare system today is about 1/3. That comes from the Dartmouth Atlas of Healthcare and is based on the amount of geographic treatment variation identified by studying Medicare intensity levels by geographic region. Some regions routinely provide more care to residents while others routinely provide less. The Dartmouth researchers added up all the differences and concluded that the variation equaled about 1/3 of all medical spending.

With our total healthcare expenditures approaching $3 trillion annually, this '1/3' estimate accounts for about $700 billion annually and perhaps as much as $900 billion. Aetna claims the actual amount is at least $765 billion.

But I think this a low estimate, and perhaps a very low one based on two analyses that we'll discuss in some detail later in this chapter.

- First, Dr. Vinay Prasad and his team from the National Cancer Institute and National Institutes of Health, in a very rigorous, detailed study, estimated that about half of all established treatments are ineffective or harmful.[175]

  If we cut geographic 'low intensity' utilization rates by about half to account for Prasad's findings, **we might double the Dartmouth waste estimate to $1.5 trillion *or more***…potentially well over half of all medical spending.

- Second, Dr. Al Mulley and his team from Dartmouth Medical School estimated the potential systemic savings from incorporating patient preferences into treatment designs at about 20%.[176] Mulley's insight, along with others who have studied the same phenomenon, was that patients who understood their options tended to choose less medical care – both a lower number of procedures and less intense / aggressive / expensive ones.

  If we cut geographic 'low intensity' utilization rates by 20% to account for Mulley's findings, **we increase the Dartmouth waste estimate to about 40% of all medical spending.**

Add the Prasad and Mulley numbers to Dartmouth's original waste estimate and you get a very large number. I think a perfectly reasonable, even conservative estimate is 40% of all medical spending.

But I won't argue with higher estimates.

Overestimating treatment benefits

[175] Prasad, A decade of reversal, Mayo Clinic Proceedings, August 2013

[176] Mulley, Patient Preferences Matter, The King's Fund, 2012 http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/patients-preferences-matter-may-2012.pdf

Patients typically overestimate the benefits of medical care and underestimate the risks. Sometimes they think all the tests, drugs and treatments are crucial to maintaining their health. Other times they discount the risk and side effect warnings. Still other times they think the care quality is all equally good from all providers.

In general, patients seem to think that medical care is always – or, at least *almost* always - beneficial and necessary.

But patients often miss on their benefit estimates and overstate them by quite a bit. One study, for example, found that women without the BRCA genetic mutation overestimated their cancer risk reduction benefit from prophylactic bilateral (double) mastectomy 4 fold or more. [177]

- The average estimated risk reduction was 65%. Most women in the study group estimated their chance of developing breast cancer *without* surgery at 76%, and their chance of still developing breast cancer *with* the double mastectomy at 11%.
- Meanwhile, the real risk of developing breast cancer without surgery was 17%. Whatever the prophylactic mastectomy benefits, they were no greater than 17%, far less than the estimated 65% risk reduction anticipated by most patients.

Another study found that 80% of patients overestimated the benefit of hip fracture prevention medications, 90% overestimated the benefits of breast cancer screening and 94% the benefits of bowel cancer screening.

Clifton Leaf, assistant managing editor of Fortune magazine, makes pretty much the same point in his upsettingly insightful analysis of the war on cancer, The Truth in Small Doses. Most patients seem to believe that 'the newest cancer fighting drug, or at least the next one after this one, will certainly provide terrific treatment benefits, so I have to have it.'

Unfortunately, as Leaf shows in almost excruciating detail, those apparent benefits are often illusory or statistical manipulations. Take our war on breast cancer, for example, and consider all the 'newest and greatest' drugs developed since 1970, then see the impact on both our ***actual*** number of female breast cancer deaths and our national breast cancer death rate per 100,000 women: [178]

---

[177] These examples come from If Patients Only Knew How Often Treatments Could Harm Them, Austin Frakt, New York Times, March 2, 2015. Frakt summarizes 30+ studies of patient expectations of medical care benefits, based largely on Patient's Expectations of the Benefits and Harms of Treatments, Screening and Tests by Hoffman and Del Mar, JAMA Internal Medicine, Feb 2015

[178] Leaf, The Truth in Small Doses, page 127. Data from the National Center for Health Statistics (CDC) and National Vital Statistics System

Year	Actual Number of Breast Cancer Deaths	Crude Breast Cancer Death Rate (deaths per 100,000 women)
1970	29,652	28.4
1975	32,158	29.4
1980	35,641	30.6
1985	40,093	32.8
1990	43,391	34.0
1995	43,844	32.2
2000	41,872	29.2
2005	41,116	27.3
2010	40,996	26.1

I did my own 'back of the envelope' analysis of breast cancer mortality gains over the past 20 or so years and found equally unimpressive improvements. I learned that from the mid-1990s to 2006 our national age of breast cancer death remained the same: 68, despite improved technologies, treatments, access and more widespread screening.

	Mid-1990s	2010 [179]
Average age of breast cancer diagnosis	62 [180]	61
Average age of breast cancer death	68 [181]	68
Number of survival years post-diagnosis	6	7

[179] 2006 data from National Cancer Inst, SEER Stat Fact Sheet: Breast downloaded Oct 2012

[180] Glockler, Cancer survival and incidence, The Oncologist, Dec 2003

[181] Saenz, Trends in Breast Cancer Mortality, Population Reference Bureau, Dec 2009

My concern: frightened patients may, under the influence of myth, ads, hope or hype, make unwise medical care choices, 'unwise' in the sense that the care probably won't benefit them much and may harm them some. But they may justify their choices based on relative prices: 'it cost $5,000 from Supplier A and only $1,000 from Supplier B. I'll give it a try. Saves me / my employer / my HSA $4,000!'

Would they have 'given it a try' for $5000?

We often think, as behavioral economists like to point out, in relative, not absolute terms. That $4,000 savings seems pretty good, a motivation to buy. That's why so many consumer products advertise '$500 off this weekend only' without telling the actual price. It's a good deal *relatively*, perhaps especially appealing to scared patient consumers.

That's why I find studies that indicate patients would opt for less, or at least very different care if they had better information about the likely benefits and harms, critically important. [182]

With these types of benefit overestimates and harm underestimates in mind, I'd like to propose a 4-Step Decision Making paradigm.[183] I suggest that patients who follow this process will make better medical decisions, end up more satisfied with their outcomes and save some money along the way.

Perhaps quite a bit of money.

How to make a wise medical decision

I suggest that wise patients use the following decision criteria when considering and accessing medical care. Price considerations are 4th on this list of 4, meaning they're relevant but that other factors are far more important.

First decide if medical care will help you**.** You can learn this from comparative studies of patient outcomes.

Care may not benefit you for a two main reasons.

- You may not be 'sick' even though some indicator or other shows you to be 'at risk'. Our sickness indicators change overtime, with some becoming more expansive and others more restrictive. Someone, for example, with blood sugar of 130 mg/dl was 'not sick' prior to 1997 but 'was sick' after, when a new threshold definition was adopted.

[182] Frakt, op cit

[183] This is the 2nd or 3rd time I discuss this in this book. My excuse: seems like a pretty worthwhile approach to medical decision making. Hope repetition serves to reinforce the message rather than bore readers.

Similarly, a 65 year old with blood pressure of 145/90 'was sick' prior to new definitions adopted in 2013, but was 'not sick' after. [184]

As a general rule, medical care cannot improve your health if you're not sick.

- You may be sick but treatments may not work. We learn from comparative studies which treatments work most of the time, which some of the time and which infrequently.

  Sometimes simply waiting for the 'sickness' to heal itself is the best strategy. This seems the case for pediatric ear aches - the NNT of antibiotics to reduce pain caused by Otitis Media in the first 7 days is 20, for example [185] - and most back pain. ChoosingWisely states that 'back-pain sufferers who had an MRI in the first month were eight times more likely to have surgery, and had a five-fold increase in medical expenses—but didn't recover faster.' [186]

  In your own case, unfortunately even if you're sick, medical care may not be able to help you.

Once you determine that medical care can help you - *if* that's what you determine and *if* you determine that it can help you *enough* - then **second**, decide which care *process* you prefer. You almost always have options: mastectomy or lumpectomy for early stage breast cancer, spinal fusion surgery or physical therapy for back pain, acupuncture or injections for a sore shoulder and many others.

- The various options sometimes (often?) generate similar outcomes though the treatment, risk and recovery processes may differ significantly.
- There's often no one 'right' answer for everyone, only 'right' answers for each individual

Once you decide which process you prefer, then, **third**, determine which medical provider gets the best outcomes.

- One spinal surgeon, for example, may generate far better patient outcomes than another so, if you've already decided you prefer spinal fusion surgery to physical therapy, choose the better surgeon. Ditto for hospitals.
- A good indicator of likely outcomes is the annual volume of patients like you that each physician and hospital treats. Though this is not foolproof – far from it, in

[184] http://www.webmd.com/hypertension-high-blood-pressure/news/20131218/new-blood-pressure-guidelines-raise-the-bar-for-taking-medications

[185] See Otitis Media evaluation on www.TheNNT.com

[186] Imaging tests for low back pain on www.ChoosingWisely.org

fact – it's about the best indicator we currently have to predict likely patient outcomes.

Finally, **fourth,** *after* you determine that medical care can benefit you, and *after* you decide which treatment process you prefer, and *after* you decide which provider gets the best results for patients like you, consider prices.

- You may find that two equally good providers charge different prices for your preferred treatment process. In that case and ***only in that case***, the wise patient chooses the low cost provider.

Be sure to follow these steps in order and rigorously. That will ensure you get the best outcomes, from the process you prefer, at the lowest cost. Don't short circuit this decision tree or you risk getting sub-optimal outcomes, from a process you really don't like, from a provider who's not very good and perhaps overpaying along the way.

Why this decision making process is so important Part 1
The story and legacy of J. Alison Glover: physicians rely on hunches too much

Dr. Glover was a British physician and researcher, perhaps the first to identify the role that physician 'hunches' had in medical care. Glover studied tonsillectomy procedure rates and impacts in the 1920s – 30s. [187] He learned that in Scotland between 1931 and 1935, 60 people died from enlarged tonsils and 513 from tonsil removal including 369 children under 15 years old.

- In this case, even though people were sick, the available medical care couldn't help them much.
- Had they applied Step 1 above, many would have opted against having tonsillectomies and, perhaps, lived as a result.
- Had they applied Step 4 only, the dismal results would have been the same, but some people would have saved money in the process, a Pyrrhic victory if ever there was one.

The US healthcare system, during the same years, was expanding its rate of tonsillectomies in children. Knowing the Scottish experience, however, the Americans tried a different approach, radiation to treat tonsillitis between the 1930s and 50s. This was both unnecessary and ubiquitous, according to the Chicago Tribune's 2004 analysis. [188] The treatments led to increases in thyroid, salivary gland and jaw cancer.

---

[187] See In pursuit of the Glover phenomenon http://the-141.blogspot.com/2012/05/in-pursuit-of-glover-phenomenon-what.html and John Wennberg A debt of gratitude to J. Alison Glover http://ije.oxfordjournals.org/content/37/1/26.long

[188] Goldman, Radiation Babies, Chicago Tribune, Nov 14, 2004

- Patients rigorously using our 4-step process above would, again, have learned in Step 1 that medical care would possibly generate more harm than good.
- They may also have determined in Step 1 that they really were not sick. As such, medical treatments could not make them ‘better’. See below.
- They might also have determined, in Step 2, that tonsillectomies were less risky than radiation.

Glover hypothesized that physician preferences, rather than patient need, drove tonsillectomy rates. He tested this hypothesis by reviewing tonsillectomy rates at the Hornsey Borough School in north London, in the late 1920s.

British children in those days got their medical care through the local school with the school physician acting, more or less, like a Primary Care Physician does today in the US, while sometimes even performing surgeries like an American specialist would. As such it was the school’s responsibility to diagnose and treat tonsillitis, along with lots of other illnesses.

Glover found that in 1928, an unnamed Hornsey school physician performed 186 tonsillectomies. A new doctor named Garrow arrived in 1929 and the number of tonsillectomies fell to 12.

- The average number of tonsillectomies per year from the previous physician, 1921 – 1928: 169
- The average number of tonsillectomies per year after Garrow took over, 1929 – 1933: 13
- The percent of apparently unnecessary tonsillectomies between 1921 and 1928: about 92%.

Glover identified no outcome differences or population changes during this time. It appeared, though, that some 156 children received unnecessary tonsillectomies annually from the previous doctor. They were not, in our terms, ‘sick’.

- Again, to tie this back to our price transparency discussion, wise Hornsey parents would have determined whether or not tonsillectomies provided benefit first and then considered price (if that was a factor in 1929 Britain. I’m not sure it was.)
- Unwise parents would have assumed something about the procedure benefits then jumped to our Step 4 and compared prices from available providers.

OK, one might say. The Hornsey situation happened a long time ago, in a country far away. It doesn’t apply to American medicine today.

John Wennberg follows in Glover’s footsteps

Wennberg, then a young researcher at Dartmouth Medical School, built on Glover's ideas and tracked tonsillectomy rates in Vermont in the 1970s. He found exactly the same thing as Glover did in Hornsey:

- 7% of children under age 16 had tonsillectomies in Middlebury Vermont, while
- 70% did in Morrisville, despite these two communities being demographically similar.

Wennberg identified a similar treatment variation rate when comparing Waterbury Vermont to next door Stowe, again two socio-economically and demographically similar towns (among the full time residents though not necessarily the ski vacationers who didn't generally have tonsillectomies there anyhow).

Parents choosing the cheapest tonsillectomy provider in Morrisville or Stowe would have received less expensive though still unnecessary care about 80% of the time. Not a vast improvement over the 92% unnecessary rate discovered by Glover in Hornsey, years before.

'Too long ago' you still might say. 'My doctor uses the most up-to-date technology, so this wouldn't happen to me. Those Vermont studies are 50 years old.'

In 2013, Wennberg, now an elderly senior researcher and his colleagues at Dartmouth published a tonsillectomy rate analysis among kids in Northern New England during the period 2007 – 2010. Here's what they found in each Pediatric Surgery Area, per 1000 children:

Rates per 1000 children by Pediatric Surgery Area	Surveys of New Hampshire, Vermont and Maine by Dartmouth affiliated researchers
Middlebury, Vt **5.6**	Burlington, Vt **2.9**
Berlin, NH **10.4**	Lewiston, Maine 5**.2**
York, Maine **7.3**	Portland, Maine **4.0**
Presque Isle, Maine **5.8**	Bangor, Maine **2.7**
Dover, NH **8.1**	Waterville, Maine **3.6**
Manchester, NH **8.1**	Ellsworth, Maine **3.8**
Exeter, NH **8.4**	

The average rate in Burlington Vermont and Bangor Maine was about 3 tonsillectomies per 1000 children while the average rate throughout New Hampshire was about 9, a 3-fold rate difference. The unnecessary tonsillectomy rate in New Hampshire between 2007 and 2010: about 68%, better than Glover's Hornsey example 80 years before but still awfully high.

The Dartmouth researchers could not identify population health differences that explained this treatment rate difference, just as Glover had been unable to in Hornsey. Nor could they identify population health gains from the excessive tonsillectomies.

Throughout this story, the treatment rate differences appear due to physician preferences, not patient need.

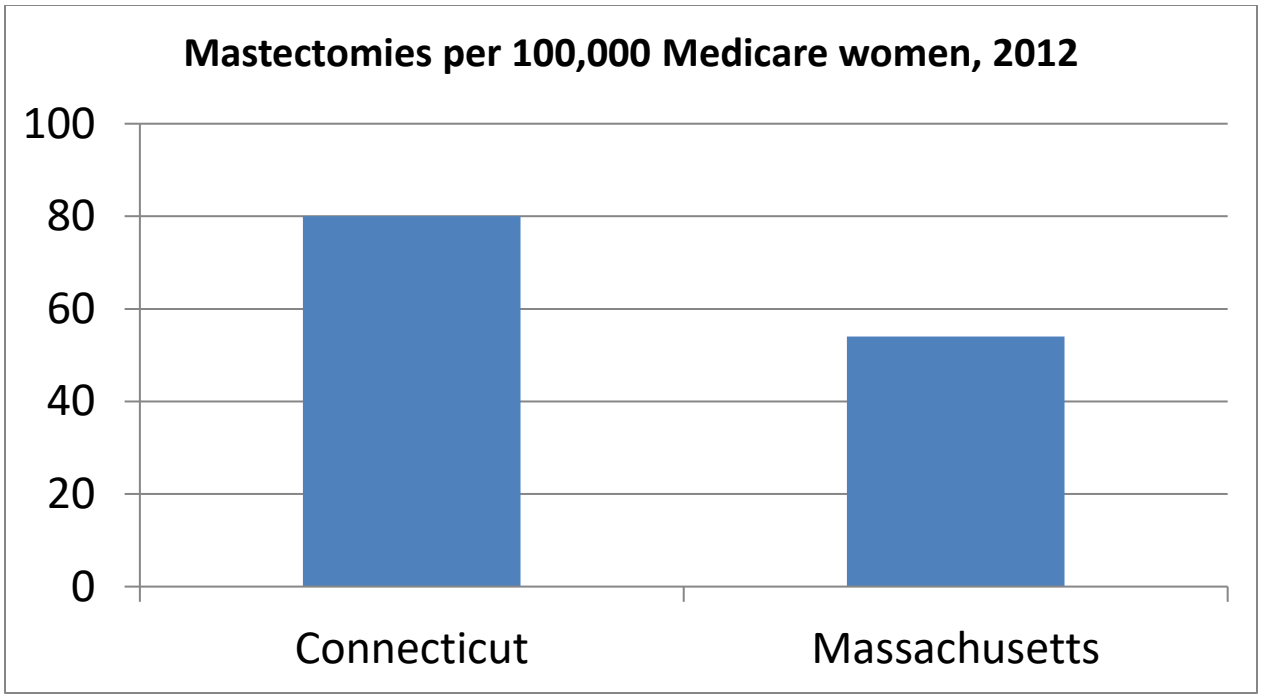
- The appropriate mechanism to avoid unnecessary care remains consumer education and use of our 4-Step Program, not price lists and not google searches.
- Parents choosing the cheapest tonsillectomy providers in New Hampshire would have received less expensive unnecessary care for their children 2/3 of the time…just like the parents in Stowe or Morrisville 50 years earlier or Hornsey 80 years before. Not much systemic evolution over the years.

Physicians appear, according to Wennberg, to rely on ‘hunches’ too often, rather than data and scientific outcome evidence from comparative studies when making treatment recommendations to patients, just as they did in Hornsey and Morrisville many years before.

But perhaps the most shocking treatment variation example comes in the mastectomy rate differences among Massachusetts and Connecticut Medicare beneficiaries. Note that both Massachusetts and Connecticut patients have access to outstanding medical care in facilities affiliated with Harvard and Yale medical schools respectively. It just doesn’t get any better than that!

I say ‘most shocking’ because in this breast cancer treatment case we have disease incidence rates, disease treatment rates and patient outcome rates. This puts to bed the ‘population difference’ justification for treatment variation rates.

Here’s a chart showing mastectomy rates in both Massachusetts and Connecticut, per 100,000 Medicare beneficiaries, from the Dartmouth Atlas of Healthcare, 2012.



Connecticut women are about 50% more likely to have mastectomies than Massachusetts women.

This raises the 'sickness' question: are Connecticut women sicker than Massachusetts women? Do they get breast cancer 50% more frequently?

The answer is no, according to breast cancer incidence rate data from the American Cancer Society. [189] The breast cancer rates are virtually identical.

Breast cancer incidence rates per 100,000 women

	Non Hispanic White	African American	Hispanic
Connecticut	139	113	127
Massachusetts	137	109	104

Now, if women in both states were equally sick but received different treatments, did Connecticut women benefit from the additional mastectomies?

Again the answer is no. Breast cancer mortality rates are almost identical in both states. [190]

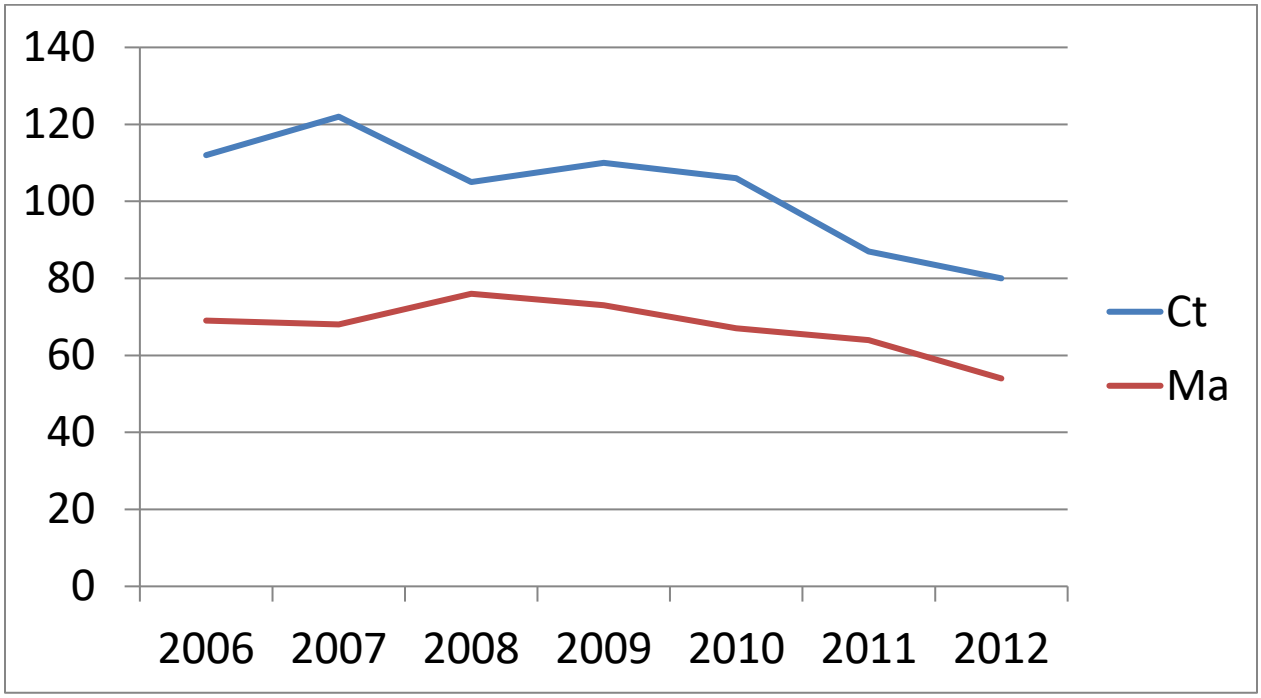
[189] American Cancer Society, Cancer Facts and Figures, 2011-2012

[190] http://www.cancer.org/acs/groups/content/@epidemiologysurveilance/documents/document/acspc-030975.pdf

Breast cancer mortality rates per 100,000 women

	Non-Hispanic White	African American	Hispanic
Connecticut	24.0	27.4	12.1
Massachusetts	23.5	27.3	12.1

This treatment variation situation has existed for years. Connecticut always has more, per thousand women. Here are the rates from 2005 – 2012, again using data from the Dartmouth Atlas:



That 50% more in Connecticut rate has existed for many years.

If the additional mastectomies Connecticut women received over time had any benefit, then we would see breast cancer mortality rate differences that approximate the treatment differences. That is not the case.

Rate discrepancies like these exist for dozens of medical tests and treatments.

These situations – tonsillectomy rates in Vermont in the 1970s and northern New England from 2007 – 2010, and mastectomy rates in Massachusetts and Connecticut in the 2000s – are exactly the same as Glover identified in Hornsey in the late 1920s.

- Knowing treatment prices would no more help a Connecticut women in 2010 avoid an unnecessary mastectomy – or a Scot in the 1920s avoid dying from a

botched procedure or an American in the 1940s avoid radiation-induced thyroid cancer - than a Hornsey child in 1928 avoid an unnecessary tonsillectomy.

- Most likely, price transparency would only have helped that Hornsey child or Connecticut women get cheaper unnecessary care.

An underlying cause of this problem, according to many who have studied it: physicians like to use the newest available technology [191] and patients generally believe that more medical care is better medical care. Wennberg put it this way: [192]

- Few surgeons are hesitant believers in the efficacy of the operations they perform, nor do they doubt their clinical necessity.
- Most patients are convinced that the benefits of surgery exceed the risks by a wide margin.

Yet, as we have just seen, these two certainties do not add up to patient benefit as often as either doctors or patients would like. Knowing prices adds nothing to the patient's chance of benefit.

Why this decision making process is so important Part 2
The impact of Vinay Prasad's research: half of established medical interventions are found to be useless or harmful when subjected to comparative studies

Dr. Prasad, Senior Fellow at the National Cancer Institute and National Institutes of Health, was lead author in an extraordinary, though little discussed, study published in the Mayo Clinic Proceedings in 2013, *A Decade of Reversal*. [193] Prasad and his team reviewed every article published in the New England Journal of Medicine between 2001 and 2010 and found that 363 studied an 'established' medical practice, meaning a commonly used medical protocol.

Of those, 146 studies or 40% reversed the practice.

In other words, 40% of comparative studies on existing, established, routine medical practices showed those practices were ineffective or harmful. The actual percentage is probably closer to 50% being ineffective or harmful when Prasad's 'inconclusive' group, 139 practices or 22% is included.

Stated differently, about half of what doctors do doesn't work. As Prasad told the New York Times

[191] See Dr. Lazris's comment at the beginning of this chapter.

[192] http://ije.oxfordjournals.org/content/37/1/26.long

[193] http://www.mayoclinicproceedings.org/article/S0025-6196%2813%2900405-9/abstract

> They all sound good if you talk about the mechanisms… the nuts and bolts, what does it do, how does it work….but the real question is: Does it work? [194]

Or, as he said in his fascinating You Tube summary: [195]

> Of all those things we're doing currently that lack good evidence, probably about half of them are incorrect.
>
> Patients who are embarking on procedures, screening tests, diagnostic tests should really try to ascertain whether or not those are based on good evidence. By good evidence, I mean randomized controlled trials powered for hard endpoints such as mortality or morbidity and not surrogate endpoints.
>
> Consequences of medical reversal are quite dire. All the people who were subject to the intervention during the years it fell in favor… in retrospect, we realize, received no benefits
>
> These are practices that should never have been instituted, that were instituted in error…even for things that make perfect sense.
>
> The take away message from our paper is that a large proportion of medical practices which are based on little to no evidence are probably incorrect. Their continued use jeopardizes patient health and wastes limited healthcare resources.

Remember Prasad's definition of *evidence*: randomized controlled studies powered for hard endpoints, not biological, anatomical or physiological explanations of why some intervention makes sense. Wise patients discuss outcome evidence with their doctors; unwise discuss anatomy and physiology. Prasad clearly explains why the latter approach doesn't work.

Here are some of Prasad's examples of medical reversals. You can find the entire list on the Mayo Clinic Proceeding website. As you review this list, ask yourself if you would like to have the *cheapest* of the reversed procedure or test. My guess: you don't want it at all, regardless the price.

I tried to choose relatively non-technical discussions. Many of Prasad's 146 reversals are very technical, specialized interventions and his discussions are often aimed at a medically trained audience.

---

[194] http://well.blogs.nytimes.com/2013/07/26/medical-procedures-may-be-useless-or-worse/

[195] https://www.youtube.com/watch?v=fB1qEoDO2nE

Intensive Blood Glucose Control and Vascular Outcomes in Patient with Type 2 Diabetes	A target A1C of 7.0% or less was the guideline for most patients with diabetes. However data were inconsistent how glucose control played a role in vascular disease. In the Action in Diabetes and Vascular Disease (ADVANCE) trial, the effects of glucose control on major vascular outcomes were evaluated. There was no evidence of reduction in macrovascular events and intensive glucose control was associated with increased risk of severe hypoglycemia and increased rate of hospitalization.
A Randomized Trial of Arthroscopic Surgery for Osteoarthritis of the Knee	Arthroscopic surgery is widely used for osteoarthritis of the knee even in the face of scant evidence of its efficacy. This failed to show a benefit of arthroscopic surgery for treatment of osteoarthritis of the knee as assessed by WOMAC scores
Effects of Combination Lipid Therapy in Type 2 Diabetes Mellitus	Fibrate therapy has long been used in the treatment of dyslipidemia in type II diabetes. Though statins are considered primary therapy to reduce the risk of cardiovascular events, rates remain elevated despite use. Two large previous studies of fibrate therapy in type II diabetics conflicted with regard to their effect on cardiovascular events. The Action to Control Cardiovascular Risk in Diabetes (ACCORD) Lipid study demonstrated here that statin and fibrate combination therapy did not differ in outcomes compared with statin therapy alone at similar levels of serum lipids.
Two Controlled Trials of Antibiotic Treatment in Patients with Persistent Symptoms and a History of Lyme Disease	Many patients with persistent symptoms of Lyme disease receive prolonged courses of antibiotics, although the effectiveness of this practice remains unknown. This randomized, placebo-controlled, double-blinded trial failed to show any significant improvement in

	symptoms after a prolonged 90- day course of antibiotics in patients with persistent symptoms.
Calcium plus Vitamin D Supplementation and the Risk of Fractures	Observational evidence and data from randomized clinical trials suggested that calcium or vitamin D supplements or both may slow bone loss and reduce the risk of falls. However, in this randomized clinical trial involving 36,000 postmenopausal women, calcium with vitamin D supplementation did not significantly reduce hip fracture, and increased the risk of kidney stones

Consider our mastectomy data from Connecticut and Massachusetts above. Rates are down in both states, more dramatically in Connecticut, even though Medicare enrollment is up. Does this mean 20 or 30% of the Connecticut mastectomies performed in 2006 – 2010 (and earlier – I didn't include those data to keep the above chart easy-to-read) were performed in error (Prasad's term)?

That's in addition to the rate discrepancy between Connecticut and Massachusetts.

Why this decision making process is so important Part 3
Al Mulley and the problem of patient preference misdiagnosis: well informed patients often prefer treatments that differ from what their doctor thought they would want

Dr. Albert Mulley and his team from Dartmouth's Geisel School of Medicine evaluated the phenomenon and impact of physician attempts to diagnoses patient treatment preferences. [196] Patients who learn of all their treatment options, it turns out, often choose very differently from their physicians, or indeed, from what their physicians would expect them to choose.

Mulley summarizes his conclusion this way:

> Well-informed patients consume less medicine – and not just a little bit less, but much less. When doctors accurately diagnose patient preferences, an enormous source of waste – the delivery of unwanted services – is eliminated. It is particularly notable that when doctors accurately diagnose the preferences of patients struggling with long-term conditions, those patients are far more likely to

[196] http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/patients-preferences-matter-may-2012.pdf . See especially page 9, source of quote in the next paragraph

keep their conditions under control, leading to fewer hospitalizations and emergency department visits.

But rushed doctors treat as *they think* the patient wants. This 'silent misdiagnosis' harms both patients and the system:

- It harms patients by providing care to them that they would not have chosen had they been better informed. Patients, according to Mulley, can suffer just as much from a missed *preference* diagnosis as from a missed *medical* one.
- It harms the entire system when doctors select more aggressive, invasive and expensive treatments than the patients themselves would, thus increasing overall costs. 'Patients choose fewer treatments when fully informed' according to Mulley, a conclusion reached in other studies. [197]

  This echoes Wennberg's suggestion above about specialist enthusiasm for surgery and Lazris's about the system promoting the more aggressive care far too often.

Mulley estimated the overall system savings from better patient preference diagnoses at 15 – 20%, but this comes with a huge caveat. He and his team evaluated the impact of improved patient preference diagnosis in the Britain's National Health Service. The UK averages spending less than half per capita on healthcare as we do, about $3,400 per person compared to over $9,000 per American. The potential savings for our healthcare system is enormous, possibly well over that 20% estimate.

Dr. Sandeep Jauhar, cardiologist and author of 'Doctored' agrees with Mulley's thesis, suggesting that healthcare reforms

> will have to focus less on payment models and more on education…better-informed patients might be the most potent restraint on overutilization …Shared decision making would be more likely to get patients the treatments they want [while helping them avoid unnecessary or inappropriate care]

Adding to this whole line of thinking, Atul Gawande, one of the key thought-leaders in this field, suggests a new role for doctors that builds on Glover, Wennberg, Prasad, Mulley and Jauhar's thinking:

> **the ideal modern doctor should be neither paternalistic nor informative but rather interpretive, helping patients determine their priorities and achieve them** [198]

---

[197] See the Dartmouth Atlas of Healthcare, sections on Preference-Sensitive Care and Reflections on Variation

[198] Sheri Fink, New York Times Book Review of Gawande's Being Mortal, November 6, 2014

I think this is a brilliant summary of the doctor's role. But it takes time to 'help patients determine their priorities and achieve them'; it's not a role one can play in a time compressed environment.

What this means for price transparency

Step 1 of our 4 step 'how to make a wise medical care decision' really matters. This step, in case you forgot, is 'determine that medical care can benefit you'.

That, I think, is where our medical care system should point patients first. Prices are where our medical care system should point patients last.

Dr. Andy Lazris summarizes the problem nicely:

> an idea has blossomed within our medical thinking that equates aggressive, specialized care with good care … with enough perseverance, our healthcare delivery system is capable of virtually anything…the perception that science and technology can cure everything …[but] as little as 15% of what doctors do is backed up by valid evidence … [instead] technology is king
>
> the public – from patients and their families to doctors and experts and politicians and journalists – perceive that more is better [199]

Knowing prices does nothing to fix this problem.

When I think of the various healthcare problems we face, and of price transparency as the solution, I am reminded of a quote I heard at a convention some years ago – sorry, can't remember exactly where or when – about healthcare: Never have so many bright and talented people worked so incredibly hard to achieve so little.

That quote and the energetic price transparency movement also remind me of Ronald Reagan's famous campaign response to a tried-and-failed political initiative of an opponent: *There you go again*.

In healthcare *'there you go again'* means yet another attempt to solve clinical problems with financial tools. It never works. Dr. Meador told us that in the beginning of this chapter.

The problems raised by attempting to solve clinical problems with financial tools

Our healthcare financing tools, commonly called 'health insurance', focus almost exclusively on 'financing' and almost totally disregard 'health'. David Dranove of Northwestern University summarized the impact of this fallacy in his book The

[199] Lazris, Curing Medicare, page xviii

Economic Evolution of Managed Care on cost control reforms in the 1980s and 90s: they 'utterly failed, on all accounts'.

Though there are many reasons for this, I think the two fundamental are:

- A primary financial focus almost inevitably reduces the ***amount of time*** each physician has for each patient. Time is the physician's primary inventory, one which he or she must use wisely to maximize his or her income. As the payment for each inventory unit – i.e. each minute – decreases, physicians need to maximize their income per unit. Hence, they see more patients per hour or day.

  Michael Porter, Harvard Business School's great business strategy professor, put this succinctly in his 2006 book Redefining Healthcare: Without the discipline of value-based competition on results, carriers have incentive to reduce the time physicians spend with patients. [200]

  Price lists and price transparency programs take us exactly where Porter warned we don't want to go. We need to focus on outcomes, not prices, to improve outcomes. We cannot improve value (outcomes per dollar spent) otherwise and we'll probably end up decreasing it.

- Financial / price based solutions lead to 'simplistic actions such as across-the-board cuts in expensive services, staff compensation, and head count' according to Porter. [201] More succinctly, he says,

  'It is a well-known management axiom that what is not measured cannot be managed or improved' [202] meaning financial solutions to clinical problems may lead to cuts that negatively impact care quality. Rather than managing some critical but unquantifiable care components, market pressures may lead to across the board cuts.

  That was, more or less, our experience with HMOs in the late 1990s and early 2000s: fairly brutal cuts and cost controls that led, among other things, to the Patient's Bill of Rights. Might we simply re-create the same experience, only this time motivated by price lists?

I'll let some physicians express all this in their own words.

Dr. Vikas Siani, President of the Lown Institute, suggests that publishing prices lists will put more pressure on clinicians to improve their efficiency. This will limit the amount of

---

[200] I wrote this quote in my notes while reading Porter and Teisberg's Redefining Healthcare, but can't find the exact reference. This article in the Harvard Business Review says pretty much the same thing. https://hbr.org/2011/09/how-to-solve-the-cost-crisis-in-health-care

[201] Ibid

[202] https://hbr.org/2011/09/how-to-solve-the-cost-crisis-in-health-care

time for each patient's care and serve to erode, not enhance, the doctor-patient relationship.[203]

Dr. Joshua Fenton of UC Davis Medical School, lead author of a study that concluded ''Patient satisfaction is linked to higher healthcare expenses and mortality, study of 50,000 people over 7 years' claims [204]

> Doctors may order requested tests or treatments to satisfy patients rather than out of medical necessity, which may expose patients to risks without benefits. A better approach is to explain carefully why a test or treatment isn't needed, but that takes time, which is in short supply…

…and which may decrease in supply under the increased billing pressures that result from excessive price considerations.

Publishing prices absent the critical and, as yet poorly developed quality metrics may make this situation worse, not better. The net result may be *more* unnecessary tests and treatments, not fewer according to Dr. Jauhar who says

> There is no more wasteful entity in medicine than a rushed doctor.[205]

To save time, he says, doctors order more tests or refer to more specialists. This adds costs and risks; it doesn't decrease them.

Time compressed physicians have less time to develop personal relationships with each patient. This leads, according to a study of 20,000 diabetics and their care givers, to less empathy for patients and poorer outcomes. [206]

- Patients of high empathy doctors had about 35% fewer metabolic complications like hyperglycemia or diabetic comas.
- Empathy means sharing feelings with other people, not belittling, undermining or judging, according to Dr. Rana Awdish, a critical care physician at Henry Ford Hospital who's involved in hospital's empathy program. These skills can be taught and practiced, she says, but this requires emotional availability on part of physician, something he or she needs time with patients to develop.

[203] http://www.doconomics.com/blog/?p=4647

[204] http://www.ucdmc.ucdavis.edu/publish/news/newsroom/6223

[205] Jauhar, New York Times, 7/20/14

[206] Bakalar, NY Times, Doctor Empathy a Factor in Diabetes Care

- Dr. Jauhar addresses the empathy issue from a typical physician's point of view: 'Among my colleagues I see an emotional emptiness created by the relentless consideration of money.' [207]

Kaplan and Haas, in their 2014 Harvard Business Review article 'How Not to Cut Health Costs' give an example:

- Starting kidney dialysis with a fistula (a surgical procedure to connect to an artery or vein) rather than catheter generates better outcomes, meaning longer lives with fewer complications.
- Patients starting at optimal times in their disease progression cost tens of thousands of dollars less per year than otherwise.
- One nephrologist said that spending 30 minutes more per patient with advanced kidney disease could dramatically improve rate of fistula or graft starts, *but there was no time or compensation for the discussion*.
- Publishing nephrology office price lists will, suggest these authors, take us in the wrong direction, generate more patient harm and ultimately cost our system more.

Actions like helping patients choose doctors based on price destroys healthcare system value.

But actions that (1) increase the amount of time physicians have with patients and that (2) enhance the doctor-patient relationship, that (3) help doctors diagnose preferences better and that (4) help patients choose effective care based on their preference and high quality outcome studies, add value.

How to turn price transparency from value-destroying to value-creating

Our definition of value includes two components: costs and outcomes, value being measured as outcomes per dollar spent. Focusing only on spending will probably decrease systemic value by reducing outcomes, for all the reasons above.

Including critical outcome factors along with prices can turn this positive, into a value creating exercise. I'll list some components below as examples. The chapter on Decision Aids goes into this in much more detail.

Consider first **birthing**, about 10% of non-Medicare hospital income. Along with price lists by hospital, an informed patient would need to know

- Infant mortality rates by hospital

[207] Jauhar, Doctored, page 170

- Infant and maternal readmission rates
- C-section rates
- Plus have some indication of whether or not each hospital's catchment area population was abnormal in some critical respect.

For **preventive care**, a wise patient would need to know

- Mortality and morbidity rates both with and without the preventive care
- Harm rates from the preventive care such as false positives and test and treatment harms
- Plus have an ability to understand what all these numbers and statistics really mean.

For **hospital choice**, patients need to know

- Infection rates
- 30 and 60 day readmission rates
- Tendency / process information by hospital per 1000 people in each hospital's catchment area, similar to Dartmouth Atlas information
- Volume of similar patients treated annually. Though an imprecise metric, care quality correlates relatively well with care quantity, and the hospitals performing the highest number of similar surgeries annually tend to generate the best patient outcomes.

For **surgeon choice**, patients need to understand

- Infection rates, complication rates, mortality rates, return-to-operating room rates and hospital readmission rates by surgeon / by procedure
- It does not seem fair that hospitals should be privy to this important information while prospective patients, whose health could be influenced by it are not, says Dr. Paul Ruggieri, general surgeon and former clinical instructor at Harvard Medical School. [208]
- Absent that information, patients need volume rates by surgeon. 'Patients can improve their chances of survival substantially – even at hospitals with high volumes of a procedure - by selecting surgeons who perform the operations frequently,' according to Dr. John Birkmeyer, former Chief of General Surgery at Dartmouth – Hitchcock Medical Center in New Hampshire.

[208] Ruggieri, The Cost of Cutting, page 127

For **pharmaceuticals**, note that the Americans average about 13 prescriptions / capita / year, double other OECD countries that generate similar or better population statistics.

- Several new Decision Aid reference sources provide useful drug information though in different forms. I particularly like Number Needed to Treat and Harm analyses. I'll discuss much more of this in the chapter on Decision Aids

Patients who know this quality information can use their doctors as 'interpreters' (Gawande's term) to help them determine which care they really want and which process they prefer. Prices can have a role in those discussions but, I suggest, probably a relatively limited one.

Conclusion

Good health is cheaper than poor health. That's both axiomatic and true.

Activities that get patients healthier are almost always less expensive than activities that either keep people unhealthier or do not positively impact health.

Well informed patients who understand their options tend to cost less than poorly informed patients. Well informed patients who use our 4-Step Decision Process will chose care wisely by balancing the likely benefits against the likely harms. They will use outcome data from comparative studies to help them make their decisions, consult with their physicians about options and alternatives and ultimately end up healthier.

Poorly informed patients assume that more medical care is better medical care, tend to assume higher likelihoods of benefit and lower of risk than are true, and are ultimately somewhat less likely to end up in good health.

Turning patients from poorly informed to well informed saves money. Shopping by price, especially for medical interventions that do not benefit patients, does not.

I conclude that Price Transparency is value-creation neutral:

- Listing prices alone, absent the critical quality indicators discussed above and in detail elsewhere in this book, probably destroys value.
- But listing prices *along with* those critical quality metrics, and using prices to engage patients in a discussion of care quality can increase system value.

It's too early in this process to know where this is headed and to issue a definitive conclusion.

[1] Richard Harris, Rigo Mortis and John Wennberg, Tracking Medicine for example.

[1] See the Dartmouth Atlas of Healthcare for example on this.

[1] State of Washington 2018 report First Do No Harm. I used this source for the other examples in this section also.

[1] Wennberg, Tracking Medicine. He estimates that patients have options about 85% of the time.

[1] See the Dartmouth Atlas of Healthcare and various research papers from the Dartmouth Institute for Health Policy and Clinical Practice, for example. Also David Cutler's estimate in The Quality Cure, page 20.

[1] See Wennberg, Tracking Medicine, Chapter 1

[1] HHS, Quick Guide to Health Literacy, https://health.gov/communication/literacy/quickguide/factsbasic.htm

[1] Mulley, et al, Patient Preferences Matter, Kings Fund and the Dartmouth Center for Health Care Delivery Science, 2012, page 9

Review Questions

Answers on next page

1. Do prices among vendors vary much for the same medical service?

    a. Yes
    b. No
    c. Only in New Hampshire
    d. Rarely in New Hampshire

2. Can you determine which vendor provides the highest quality medical services from price lists?

    a. Yes
    b. No
    c. Only in New Hampshire
    d. Rarely in New Hampshire

3. Can a patient determine if he or she will benefit from a specific medical service by learning its price?

    a. Yes
    b. No
    c. Only in New Hampshire
    d. Rarely in New Hampshire

4. About how much ineffective or harmful medical care exists in this country?

    a. About 2% of medical care is ineffective or wasteful
    b. About 40 – 50% of medical care is ineffective or wasteful
    c. About 97.8% of medical care is ineffective or wasteful
    d. Well over 100% of medical care is ineffective or wasteful

5. This text suggested 3 reasons that explain why medical care is sometimes ineffective or wasteful. Which below is NOT one of those reasons?

    a. Physicians rely on hunches, not science, too often
    b. Medical care that has not been subjected to comparative studies is proven ineffective or harmful about half the time when subjected to those studies
    c. Physicians too frequently treat patients according to physician preference, not patient preferences
    d. Doctors are poorly trained in this country

6. This text suggested a Four Step Process for making wise medical care decisions. Which below is Step 1 of that process?

    a. Determine if medical care provides more benefits than harms or than doing nothing

b. Pray
c. Ask a trusted friend or relative what to do
d. Learn as much as you possibly can about the anatomical and physiological causes of your medical problem

7. Which below is NOT an element of the Four Step Process?

a. Determine which treatment process you prefer
b. Determine which doctor and hospital generates the best outcomes for your preferred process
c. If two providers generate the same outcomes from your preferred process, consider prices
d. Pray

8. Which, below, is *most likely* to happen if medical prices become widely known to patients?

a. Doctors will spend less time with each patient
b. Our national 30 day hospital readmission rate will drop
c. Our infant mortality rate will drop
d. Americans will live longer

9. Which, below, is *least likely* to happen if medical prices become widely known to patients?

a. Care quality will improve
b. Prices for many ineffective treatments will fall
c. Doctors will advertise the prices of their (often ineffective or harmful) services
d. Hospitals will advertise the prices of their (often ineffective or harmful) services

10. Americans seem to perceive that more medical care is better and that higher technology care is better than lower. How will posting prices affect these perceptions?

a. It won't
b. It may reduce moral hazard when people understand what care costs
c. It may induce more moral hazard when people learn true care costs
d. It may incent people to drop insurance coverage

Review Questions

Correct answers in bold

1. Do prices among vendors vary much for the same medical service?

a. Yes
b. No
c. Only in New Hampshire
d. Rarely in New Hampshire

2. Can you determine which vendor provides the highest quality medical services from price lists?

a. Yes
b. No
c. Only in New Hampshire
d. Rarely in New Hampshire

3. Can a patient determine if he or she will benefit from a specific medical service by learning its price?

a. Yes
b. No
c. Only in New Hampshire
d. Rarely in New Hampshire

4. About how much ineffective or harmful medical care exists in this country?

a. About 2% of medical care is ineffective or wasteful
b. About 40 – 50% of medical care is ineffective or wasteful
c. About 97.8% of medical care is ineffective or wasteful
d. Well over 100% of medical care is ineffective or wasteful

5. This text suggested 3 reasons that explain why medical care is sometimes ineffective or wasteful. Which below is NOT one of those reasons?

a. Physicians rely on hunches, not science, too often
b. Medical care that has not been subjected to comparative studies is proven ineffective or harmful about half the time when subjected to those studies
c. Physicians too frequently treat patients according to physician preference, not patient preferences
d. Doctors are poorly trained in this country

6. This text suggested a Four Step Process for making wise medical care decisions. Which below is Step 1 of that process?

a. Determine if medical care provides more benefits than harms or than doing nothing
b. Pray
c. Ask a trusted friend or relative what to do
d. Learn as much as you possibly can about the anatomical and physiological causes of your medical problem

7. Which below is NOT an element of the Four Step Process?

a. Determine which treatment process you prefer
b. Determine which doctor and hospital generates the best outcomes for your preferred process

c. If two providers generate the same outcomes from your preferred process, consider prices
d. Pray

8. Which, below, is *most likely* to happen if medical prices become widely known to patients?

a. Doctors will spend less time with each patient
b. Our national 30 day hospital readmission rate will drop
c. Our infant mortality rate will drop
d. Americans will live longer

9. Which, below, is *least likely* to happen if medical prices become widely known to patients?

a. Care quality will improve
b. Prices for many ineffective treatments will fall
c. Doctors will advertise the prices of their (often ineffective or harmful) services
d. Hospitals will advertise the prices of their (often ineffective or harmful) services

10. Americans seem to perceive that more medical care is better and that higher technology care is better than lower. How will posting prices affect these perceptions?

a. It won't
b. It may reduce moral hazard when people understand what care costs
c. It may induce more moral hazard when people learn true care costs
d. It may incent people to drop insurance coverage

Why Private Sector Healthcare Reforms Always Fail to Control Costs

We have a 40+ year history of healthcare system reform, and a 40+ year history of reform failures to control costs. Harvard Business School Professor Michael Porter explains why:

> With the wrong diagnosis, the attempts to treat the system have addressed the wrong issues or offered piecemeal, ultimately ineffective solutions aimed at symptoms rather than causes. [1]

Harvard Business School's Michael Porter, along with his colleague Elizabeth Teisberg, have written the Big Book About Healthcare, 400+ pages, titled **Redefining Healthcare**. Chapter 2 provides a litany of competitive dyfunctionalities. We'll use some of Porter and Teisberg's categories to articulate why we have expensive, fragmented, inappropriate and dysfunctional forms of healthcare competition.

Note when reading this: Porter is a business school professor, primarily interested in improving healthcare value. 'Value' for Porter means 'outcomes per dollar spent'. Good surgical outcomes at low cost are high value medical services, for example, while similar outcomes at higher costs represent less value.

Porter and Teisberg see as dysfunctional many healthcare regulations because these are designed to treat healthcare purchasing as different from purchasing other goods and services in our economy. **The clash between appropriate business strategies to promote patient value, and inappropriate regulations to control competition, comes through quite clearly.**

Dysfunctional Competition in the Wrong Geographic Market

We know that some hospitals provide better value than others. The Cleveland Clinic, for example, is nationally recognized as an outstanding cardiac center, and the Mayo Clinic wins accolades for its patient care. Both provide outstanding patient value – excellent outcomes at moderate prices. From Porter's point of view, we could increase overall American patient value by allowing more patients to access these, and similar, outstanding medical facilities.

But regulations often prohibit people insured in one state from getting treatment in another state, at least, without paying hefty 'out of network' costs (essentially fines). A Massachusetts small group employee, for example, who has Massachusetts based health insurance, must pay this fine – in the form of out-of-network costs - to access the Cleveland Clinics' outstanding care.

This makes no sense. We don't do this in other economic arenas. We are not restricted from purchasing cars made in other states, or computers, or food, or clothing. That's one reason why we have a history of quality improvements and cost reductions in these products.

But in healthcare, we charge patients **more** to get better care – meaning often quicker and cheaper care.

What would happen if, for example, Massachusetts insureds could use out of state facilities without these extra charges? The short answer: it would be a win-win for the carrier, employer and employee:

- The carrier would save money;
- The employer would thus have reduced premiums;
- The employee would save money and – as an added bonus – receive better care.

The only losers – perhaps – are the Massachusetts providers who lose a patient to an out-of-state competitor. (I say lose 'perhaps' because competitive pressures from out-of-state providers might actually improve the value at Massachusetts hospitals, so they will get more insureds from other states than they lose. Inter-state competition might reward them with more patients.)

This type of geographic restriction may make no sense to people who believe that purchasing healthcare is the same as purchasing other goods and services.

But it may make perfect sense to folks who believe that purchasing healthcare is **different** from purchasing other goods and services. These people may see the state as a protector of its citizens.

Massachusetts, for example, may have significantly more stringent licensing requirements than some other states. As such, it's the Massachusetts state regulator's responsibility to dissuade its citizens from leaving the state to receive – potentially – inferior care. Yes, some people may not be able to access the Cleveland Clinic. But they are protected from receiving shoddy care in lots of other states.

Regulators, thus, may restrict people from getting the **upside** of out-of-state providers, but they also save people from getting the **downside** – shoddy treatment. That, apparently, is the justification.
Are they right? Are they wrong? The answer depends on how you define healthcare. If it's like other goods and services, then the regulators interfere with market competition to the detriment of us all. But it it's unlike other goods and services, then regulators provide a valuable function.

Regulators think that purchasing healthcare is different from purchasing other goods and services, so they regulate accordingly.

Whether or not we agree with them, we all pay the price in the form of higher costs than any other advanced industrialized country.

Dysfunctional Competition over the Wrong Time Horizon

We know that most diseases, especially the chronics ones, last longer than 1 year. Lupus, multiple sclerosis and cystic fibrosis, for example, last a lifetime. Yet we finance healthcare treatments with one year health insurance policies.

These policies, underwritten by different carriers, may have different provider networks, different drug formularies and different approval criteria for various medical treatments. A patient may need to change physician, hospital, medications and treatment protocol when the employer decides to change plan.

Conceivably some patients may need to change provider, medication and treatment protocol annually. This makes no medical treatment sense - people with chronic conditions need, above all, continuity of care. This allows the treaters to monitor progress, tweek protocols as necessary and take a long term view of patient improvement.

But short term health insurance policies – i.e. 1 year plans - incent carriers and providers to seek quick hits, like eliminating certain expensive drugs or failing to invest in world-class hospital IT systems. This can be counter-productive: a patient responding to one drug may develop problems when that drug is discontinued due to a formulary difference.

Some drugs may, for example, be more expensive in the short term but reduce long term costs significantly. The VA has found this sometimes to be true. Our 1 year policy horizon and associated restrictions, however, may dissuade physicians from using the better / lower-long-term cost medication. The patient may receive sub-optimal care and the total disease treatment costs may ultimately increase.

Yet we allow, and indeed require, 1 year long insurance policies because of our weird employer based funding system. Employers, loath to take on appreciating long term liabilities, balk at committing to longer term insurance policies.

This short term funding mechanism treats healthcare purchasing as **different from** other goods and services. Your employer doesn't buy your food or auto insurance, for example. We don't subject other products designed for long term use – like automobiles – to the same short term financial review. Imagine if we purchased cars using the same 1 year time horizon as we use when purchasing healthcare!

The historical quirks that led to our employer based insurance system have generated many regulations that protect employers from potentially harmful financial obligations…sometimes to the detriment of patients, and often to the detriment of employer's own long term financial interests.

In the meantime, we choose our health insurance policies based largely on premium price. We shop for health insurance like we shop for other goods and services. But we finance healthcare very differently, using this artificially imposed 1 year time horizon.

Thus we have a financing system absurdly designed to treat healthcare purchases as **different** from other goods and services, while we try to apply routine business practices to medical treatments – restricting costs to remain within a budget, for example. This is a huge disconnect.

Dysfunctional Competition over the Wrong Unit of Measure

We currently shop for providers, when we shop at all, seeking the 'best' doctor, the 'best' surgeon or the 'best' hospital. We typically have no clear definition of 'best'.

Some people define the best hospital as the name hospital, the research facility associated with a famous university. Some define the best doctor as the head of a department or research institute, or a graduate of a famous medical school. Others define the best surgeon as the one most frequently recommended by other doctors.

None of these definitions, typically, includes a quantification of outcomes, as in 'Dr. Smith is the best surgeon because 97% of his patients fully recover within 30 days'. We typically lack this data.

But there's a more insidious underlying issue here. Dr. Smith is but one component of a large team that provides care to a patient. The team consists of diagnosticians, nurses, pre-op professionals, surgeons, assistants, post-op professionals, rehab professionals, IT specialists, therapists, psychologists, etc. Good patient outcomes require the entire team to work together as a well oiled machine for a failure of any one component may doom the patient.

In other words, the appropriate unit of measure for medical care is **the medical condition itself** – not the individual surgeon or hospital. A great surgeon with a poor rehab team may generate poor results.
A specific hospital may be outstanding at orthopedic care, but lousy at cardiac. Or the hospital may be outstanding at certain surgical procedures but poor at chronic care. Or have a poor IT system that fails to follow patients post-discharge, leading to a high readmission rate. Or perhaps have poor post-op patient counseling that fails to prevent self destructive behavior.

A brilliant surgeon with a poor post-discharge team may generate outcomes as poor as those from a crummy surgeon with an excellent post-discharge team.

We need cost and outcome information **by medical condition** for competing hospitals in order to make wise purchasing decisions. We also need this information to make wise healthcare reform decisions. Yet this information is virtually nonexistent.

The costs and value of each individual treatment component cannot be assessed in isolation, as each component is but a part of the larger team effort. Our attempts to control a portion of the treatment costs – surgical costs, for example, or rehab therapy costs – backfire as a result.

Healthcare reforms that consider any unit of measure other than the specific medical condition will almost certainly also fail.

Dysfunctional Competition to Amass Wealth

Our various medical care providers – primary care physicians, specialists, hospitals, diagnosticians, allied medical professionals, etc – all share a client who is not their patient. Their real client: the insurance carrier who pays the bills!

I have no doubt that medical care professionals would each, personally, like to help their patient's get better. Many went into the profession to help people.

But I equally have no doubt that medical professionals also seek to maximize their incomes, as do all rational business people in a capitalist environment. In the healthcare field, we call this 'supply induced demand'. It correlates with moral hazard – the healthcare problem we discussed in Chapter 8. Here's how it works:

Physicians know that someone besides the patient – i.e. an insurer - will ultimately pay the bill. The physician also knows the criteria that each insurer uses to approve payments. It's a simple step – and probably unconscious for most medical professionals - then, to design a treatment plan that generates the highest payments.

Take this process one step further. Each hospital has an economic self interest in providing the most reimbursable treatment to each patient. Providers also have economic interests in not referring that patient out. This would mean that another provider benefits economically.
Providers – both specialists and hospitals - compete to provide the most care to each patient and refrain from referring patients to other providers. Again, probably not even consciously.

Now add one more step. Providers assemble themselves in networks, often affiliated with hospital systems. When referrals are necessary, they refer 'in-network'. Not to the 'best' specialist or, necessarily, to the cheapest. Instead, to an in-network affiliate, to keep the carrier's payments within their group. Compensation, bonuses, etc may rest on physicians' abilities to keep patients in-network.

And add a final step. Provider groups negotiate rates against carriers. The carriers want to pay less; the providers want to earn more. The larger and more powerful the provider group, the higher the rates.

Rates become a function of negotiating power, not of outcomes, not of efficiency, and not of patient satisfaction.

Providers thus compete with carriers and with each other to amass wealth. Whether or not patients get good treatment or enjoy good outcomes becomes a side issue in the compensation competition.

Hospitals typically do not support their claim for higher payments with data showing that their 30-day readmission rate is lower than another's. Nor do they show that their diabetic patients reduce their blood sugar levels more in a given time period. They generally don't argue that they should get paid more because their treatment quality is better.

Instead, they threaten not to accept a carrier's payment schedule. Here's Rick Weisblatt, Senior Vice President for Health Services at Harvard Pilgrim Health Care in Massachusetts, describing how geographically isolated hospitals (for example, on an island) negotiate fees. They use their geographic monopoly

> To leverage higher reimbursement. The employers in that community generally want that hospital in the network. And the hospitals are not shy about threatening termination [of the carrier's contract] [1]

The competition is to amass wealth, not provide better value.

Healthcare competition is <u>like</u> competition in other arena where the parties negotiate fees and prices to maximize their wealth. But it is <u>different from</u> other goods and services which compete on value – in our case, cost per patient outcome.

Instead, in healthcare, the parties compete simply via power relationships.

Dysfunctional Competition over the Wrong Hospital Strategies

Most American hospitals are General Hospitals, providing all medical services from ER to cancer treatment to open heart surgery, to all patients in a geographic area. These broadline general hospitals compete with each other.

Yet numerous studies have demonstrated that specialty hospitals – orthopedic, cardiac, etc – generate better outcomes at lower prices. The literature is full of case studies of this. [1]

Indeed, Harvard Business School Professor Regina Herzlinger – who has taught accounting to budding MBAs for years – claims bluntly:

> Specialty hospitals generally provide better, cheaper healthcare than the everything-for-everybody general hospital. [1]

General hospitals, rather than competing with specialty hospitals on **value** (best outcomes per dollar spent) instead obtain political redress.

Some states – about 35 currently – have Certificate of Need regulations on the books. CON laws restrict hospital expansion or construction unless the hospitals can demonstrate a 'need' for the additional services to government regulators – at a public hearing. A new specialty hospital looking to enter a market must similarly face this requirement.

Imagine the hearing. I, for example, want to open Gary's Coronary Hospital, perhaps in conjunction with an out-of-state hospital (or even, heaven forbid, a foreign hospital). I think I can provide better value – better outcomes at lower costs – than the current hospitals in my region. I'm willing to invest my money in this venture.

I make my proposal at the public hearing. 'Why,' I wonder, 'do I need to convince regulators about the validity of my proposal? I wouldn't have to go through this if I wanted to open or expand a shoe store. Or if I was a university president and wanted to expand my business school or chemistry department. I'm looking for the same tax treatment as the university, but I have a far more difficult regulatory hurdle to overcome.'

After I outline my business plan, the local incumbents speak in turn. They all explain to the regulators that there is no 'need' for my new coronary facility. They all, it turns out, have sufficient capacity to cover all the cases that I'm hoping to get. They try to convince regulators that there is no need for my services.

I, in this case, see purchasing healthcare as **like** purchasing other goods and services. I'll invest my money and take my chances. If I'm wrong about the need for my service, I'll fail and go out of business. I'm willing to take that risk.

But the regulators see purchasing healthcare as **different from** most other economic activities. They perceive a need to avoid wasting resources – potential tax losses from another non-profit entity, perhaps. They may want to avoid generating excess expensive medical capacity, so seek to protect hospitals from themselves. They may want to prohibit me from 'cherry-picking' profitable services from existing broadline general hospitals, using the totally fallacious argument that hospitals need the profitable patients to subsidize the unprofitable ones. [1]

Regulators may also perceive a need to protect the local incumbents, perhaps on the theory that 'they do such good work' for the local community - even if this raises medical costs to state inhabitants. In Michael Porter's terms, CON laws serve to

> Protect local incumbents from competition that could drive improvements in the diagnosis and treatment of specific medical conditions. [1]

Hospital systems tend to be very large local employers, often the largest or second largest in a local market. Physician and hospital campaign contributions are also

generally quite significant, especially at the local level. One wonders the impact of this electoral and campaign contribution clout in the Certificate of Need decisions.

This situation played out at the national level in, for example, the Medicare Modernization Law of 2003. That Law prohibited establishment of new specialty hospitals for 18 months. Congress passed a second 6-month ban in 2005.

Now that's a good way to stifle competition!

Note the tension between those who see healthcare as like, and unlike, other economic activities. Contrast the regulations governing private hospital expansion with the regulations governing private college expansion. A private college (also generally a non-profit, like a hospital) can open a new department or expand an existing one without receiving state permission. But a hospital cannot….to our cost disadvantage.

Dysfunctional Competition Based on the Wrong Information

Wise shoppers need quality information – both price and outcomes – about the products they're considering. Neither is available in healthcare.

Contrast the purchase of a tennis racquet with the purchase of any medical service, even one as simple as an MRI.

You can comparison shop for tennis racquets. You can determine price, weight, color, string tension, hand grip size and construction material. You might even – depending on where you purchase – hit a few balls with it. You can get all this information about a product that costs a couple hundred dollars and plays a minor or inconsequential role in most people's lives.

Contrast this with available medical provider information. We'll use an MRI example, because this is a relatively straight-forward, discrete test.

You can't determine the MRI price – it's a function of carrier discounts, which in turn are a product of power negotiations. You can't determine radiologist quality. You can't learn how many misdiagnoses have been generated from this facility – either false positives or false negatives. You can't determine if this particular machine is the most current incarnation of MRI. You can't even learn how many people with your medical condition have used this radiological facility.

In short, you can't learn anything about this procedure's cost or quality, even though it may have life impacting consequences for you.

Not only is this type of quality information unavailable to shoppers, but it's also typically unavailable to physicians. Indeed, according to Porter, 'most physicians lack any objective evidence of whether their results are average, above average or below average…they generally lack information on their own efficiency.' [1]

Imagine lacking quality feedback about your own competence and outcomes in other profession! Porter goes even further:

> The information that is available – health plan overviews, subscriber satisfaction surveys, and reputation surveys…has modest value. Much more relevant is information about…results.[1]

The hospital rankings currently available, in, for example, US News and World Report or Money magazine 'fall far short of the types of information really needed to support comparisons of value'. [1]

This differs, of course, from auto, food or other product information.

Why is medical information so unavailable? One short answer: government regulators treat healthcare differently from the way they treat providers of other goods and services. They don't require it.

We require auto manufacturers to publish lots of information about their products, including crash test ratings. But not hospitals. Why?

Some claim that hospital lobbies are too powerful. This seems an unsatisfactory answer, for the auto industry also has lobbyists, is also powerful and would probably be delighted to avoid publicizing crash test ratings and other comparative information that might cast them in a poor light. Ditto for the food industry.

Instead, I think, regulators see medical service provision as essentially different from provision of other goods and services, and thus subject to a different set of rules. They allow medical providers to withhold comparative information from the public, apparently with the justification that ordinary people would not be able to understand this data. (OK, political pressures and lobbying are a consideration here also.)

Interestingly, regulators have no problem mandating certain kinds of services for sick people – minimum nursing staffing ratios, for example, or mental health parity. They do this because they believe that the market alone will not provide adequate services to sick people. They typically regulate based on political influences – the nurses lobby, for example, demanding certain minimum staffing rates – rather than on rigorous, extensive studies comparing various nurse-to-patient ratios and patient outcomes.

But regulators balk at requiring price and outcome transparency. They require it for autos, but not for healthcare. They require it for food products, but not for healthcare. They require it for financial services, but not for healthcare. They even require it, more or less, for life, homeowners and auto insurance – but not for healthcare.

The best way to understand these discrepancies? Understand that many regulators see healthcare as essentially different from other goods and services.

This conflict – between regulations based on one set of assumptions, and competition based on another – leads to dysfunctional competition that raises medical service prices without simultaneously improving patient outcomes.
Porter and Teisberg note several other kinds of inappropriate and dysfunctional competition in the healthcare arena. We've presented enough above to make our underlying point: our lack of consensus about whether healthcare is like or not like other goods and services leads to a poor regulatory framework and dysfunctional, costly competition.

Our Lack of Consensus Is Expensive

As our medical providers compete for business in this poorly regulated, dysfunctional marketplace, we have more and more people ***administering*** our healthcare. In 2006, for example, we had some 470,000 health insurance employees – that's 1 for every 2 physicians! [1]

These numbers don't include the number of hospital and physician office employees who coordinate with these insurance employees. Surveys find that both doctors and nurses spend between one-third and one-half of their time on paperwork and that health insurance administration alone is a staggering 30% of all healthcare spending. [1]

Why are these costs so astonishingly high? Because we lack a consensus on whether healthcare is like or dislike other goods and services. As a result, we have an overly complicated, confused and often internally contradictory regulatory and administrative system.

We could reduce administrative costs, complications and confusion if we all agreed that healthcare is like other goods and services – or dislike.

If, for example, we let the market alone dictate healthcare system evolution, then we could eliminate many mandates and healthcare access restrictions, referral costs and requirements and inappropriate geographical competition. We could probably eliminate the expensive and inappropriate medical arms race by focusing on outcomes per dollar.

Alternatively, if we agreed that healthcare is a government function – not a market function – then we could eliminate many of our current costly types of provider competition, like individual underwriting and pre-existing condition exclusions and network restrictions. We could also eliminate the massive private insurance overheads that serve no useful economic function in a public healthcare system.

But since we lack consensus, we have the worst of both worlds. We have expensive private insurance overhead. We have expensive provider overheads whose only function is to deal with the various insurance carriers and complications. Yet we don't have the benefits of true market competition that would lower costs and improve outcomes.

Indeed, our current convoluted healthcare billing system is so complex and confusing that carrier and provider *billing offices themselves* often cannot understand the process. Errors and double billing abound. [1] Partially as a result, insurers find reasons to reject up to 30% of all the bills they receive from physicians and hospitals [1] – leading to more administrative time and expense to straighten all this out.

Our lack of consensus about how to treat healthcare – is it like or dislike other goods and services? – is hugely expensive for all of us.

Overview of Health Insurance Reforms Since 2000

The US has enjoyed spurts of health insurance reforms for the past 60 years at least. Medicare and Medicaid, the first major public health insurance programs since World War II, passed Congress in the 1960s. Nixon's HMO Act of 1973 followed, presenting a major private sector reform about 6 years later. Both dramatically changed our health insurance landscape for years to come.

After 3 decade major healthcare reform lull, the W. Bush administration passed the Medicare Modernization Act in 2003 and the Obama administration the Affordable Care Act 7 years later. Both also dramatically changed our health insurance landscape for years to come.

But did either the MMA or Aca have the impacts their authors desired? Did either improve the health status of Americans? Did either cut medical costs? Did either dramatically expand coverage? This chapter will address those questions and propose some startling and perhaps unsettling answers. It will then suggest some changes to our healthcare system, already in the works, that *could* have the dramatic systemic impacts that the healthcare reformers had hoped to have.

The Two Major Healthcare Reforms Since 2000

The Medicare Modernization Act of 2003, passed by the George W. Bush administration, represented the ***market based*** reformers vision of an improved healthcare system. Among its key components, this legislation enhanced the so-called 'consumerism' movement in American health insurance by codifying Health Savings Accounts and Health Reimbursement Accounts into our income tax and health insurance systems.

- Health Savings Accounts (HSAs) allow insured folks to invest tax deductible money into special accounts called Health Savings Accounts that they own personally. This money grows tax free until needed, when it can be withdrawn tax free to spend on medical care. HSAs are the only triple tax free investments available under the IRS code; they're tax deductible when initiated, grow tax free and are not taxed when withdrawn for qualified medical expenses.
  HSAs have grown tremendously, totaling over $80 billion by 2022 with some individual accounts reaching $100,000 or more.

  Health Savings Accounts are closely tied into high deductible health plans, both legislatively and economically. Insured people could originally only invest an amount equal to their annual health insurance deductible into their HSA. Overtime, this requirement has changed; in 2021, the contribution limits were $3600 for an individual plan and $7200 for a family plan.

  Economically and philosophically, these accounts were designed to help medical care consumers think of medical payments as being made with their own money.

The Medicare Modernization Act authors hoped that this change in consumer attitude – from thinking of medical payments as someone else's money (the health insurance company's) to thinking of medical payments as their own money – would motivate patients to shop more wisely for medical care, compare prices and choose the least expensive care, in other words, act like purchasers of other consumer products. This consumer driven movement would, in turn, force medical providers to cut prices and therefore reduce healthcare spending by billions of dollars.

That, at least, was the theory.

- Health Reimbursement Accounts (HRAs) are funded by employers. These were designed, originally, to cushion the impact of high deductible plans on employees by covering all or part of the deductible. Operationally, the employee pays for a medical treatment, then submits a receipt to his / her employer for reimbursement. Overtime this became mechanically simpler, with employees paying for medical services with their HRA card.
  HRA payments are tax deductible to the employer and tax free to the employee.

  HSAs and HRAs have become integrated into our health insurance landscape since 2003 and have also become far more complicated and intricate than outlined here. My purpose in this chapter is simply to introduce them as components of the Medicare Modernization Act of 2003.

The Medicare Modernization Act also introduced Parts C and D of Medicare.

Medicare Part C, often called Medicare Advantage, operates like an old-fashioned HMO. These plans are offered by private insurance companies under Medicare's guidance and with Medicare's approval. Medicare pays a fixed amount to the companies that offer Medicare Advantage Plans. These companies must follow rules set by Medicare. However, each Medicare Advantage Plan can charge different out-of-pocket costs, have different rules for how to get services like specialist referrals or specific hospital and physician networks, and sometimes include additional benefits. That introduces additional consumerism into the marketplace; different Medicare beneficiaries can choose different Part C plans according to their own different insurance plan preferences.

The MMA authors hoped that competition among health insurers – the folks who actually offer various Part C plans – would force prices down. Part C subscribers would, again in theory, choose the lowest cost / most attractive insurance options. As these plans grew in popularity, the offering insurance companies could negotiate lower and lower prices with participating doctors and hospitals.

Again, in theory.

- Medicare Part D covers outpatient prescription drugs, previously not covered by Medicare.

Our purpose in this chapter is less to describe components of the Medicare Modernization Act or, later, the Affordable Care Act, but more to discuss their impacts on the American healthcare system. To that end, we'll move now to commentaries on the state of American healthcare post-MMA. I'll use summarizes from well known academics representing various disciplines – medicine, business, economics and public policy – to make my points.

In 2005 – two years after passage of the MMA – two Harvard Medical School professors, Jules Richmond and Rashi Fein representing for our purposes the medical school perspective, called our healthcare system a 'mess' in the title of their lengthy book on the state of American healthcare entitled 'The Healthcare Mess'. Interestingly Richmond was a former US Surgeon General and exceptionally well placed to understand the issues he discussed.

In 2010 – seven years after passage of the MMA – Regina Herzslinger, a well known Harvard Business School professor and, for our purposes representing the business school perspective, called our healthcare system 'insane'. That was at a Boston area lecture I attended, though my notes are somewhat confusing on this point; she may have called our system 'stupid'. The distinction doesn't matter.

Others from various academic disciplines offered similar commentaries.

Seven years after passing the Medicare Modernization Act and seeing an obvious need to correct some perceived fatal flaws in our healthcare system, the Obama administration passed the Affordable Care Act, a set of government based health insurance reforms. These differed markedly from the market based reforms encompassed in the 2003 Medicare Modernization Act. The ACA's primary goal was to expand insurance coverage, not to enhance consumer / patient power. Among the key ACA provisions, it

- Introduced income based subsidies for health insurance premiums, so lower income folks could afford to purchase private plans,
- Introduced health insurance exchanges or online marketplaces, where consumers could view all health insurance plans available in their area and comparison shop based on price and benefits,
- Introduced employer mandates, requiring employers to offer health insurance to their employees under various circumstances and conditions,
- Introduced an individual mandate, requiring everyone to have health insurance, again under various circumstances and conditions,
- Introduced community rating, so everyone in the same area paid the same amount for health insurance with some minor condition differences, like age and smoking status. This ended 'individual underwriting' where the insurance carrier priced policies differently based on a host of individual risk factors. Individual

underwriting made health insurance unaffordable to very sick people, a situation the Obama administration wanted to avoid.

- Eliminated annual or lifetime policy payment ‘caps’ or amounts of money a person could receive in insurance payments per year or per lifetime. Caps protected insurance carriers from extremely high payouts but, again according to ACA authors, did not serve severely sick patient interests as well.
- Medicaid expansion in which the Feds paid states to cover more low income people.

The commentators continued.

In 2014 – four years after passing the ACA and 11 after passing the Medicare Modernization Act, Ezekiel Emanuel, perhaps the primary author of the ACA and brother of President Obama’s Chief of Staff Rahm Emanuel, called our healthcare system “terribly complex, blatantly unjust, outrageously expensive, grossly inefficient and error prone”. Remember – this summary came from a supporter of healthcare reform.

In 2016 – six years after passing the ACA and 13 after passing the MMA, Jonathan Engle from Columbia University’s School of Public Heath called our system “uniquely dysfunctional”.

In 2020 – ten years after passing the ACA and 17 after passing the MMA, Angus Deaton and Anne Case, two Princeton economics professors, called our system a “calamity”. Deaton won the Nobel Prize for Economics in 2015 for his work in this field.

Other academics and healthcare commentators chimed in along the same general lines.

The summary of our selected healthcare commentaries above, described US healthcare system evolutions through 2 major reforms – the Medicare Modernization Act of 2003 and the Affordable Care Act of 2010 – as moving from a ‘mess’ to a ‘dysfunction calamity’. Not a ringing success by any means.

Interestingly, this fiasco (my word) is taxpayer subsidized since employer paid premiums are tax deductible to the employer and not taxable to the employee - the biggest tax break allowed by the IRS. This raises questions to me, at least, about the purpose of our healthcare system. Is it designed to get people healthy? Is it designed to be benefit sick people? Or is it primarily a jobs program designed to keep well educated, well compensated people happy? Read on and decide for yourself.

Success and failure defined and demonstrated

Let’s now define healthcare reform success and failure. Success in any business, economic, or public policy reform means better products at lower cost and with wider access. This applies to activities ranging from internet expansion to educational reforms, from air conditioning utilization to automobile safety and emission standards and from cell phone use to consumer product sales: better products at lower cost and

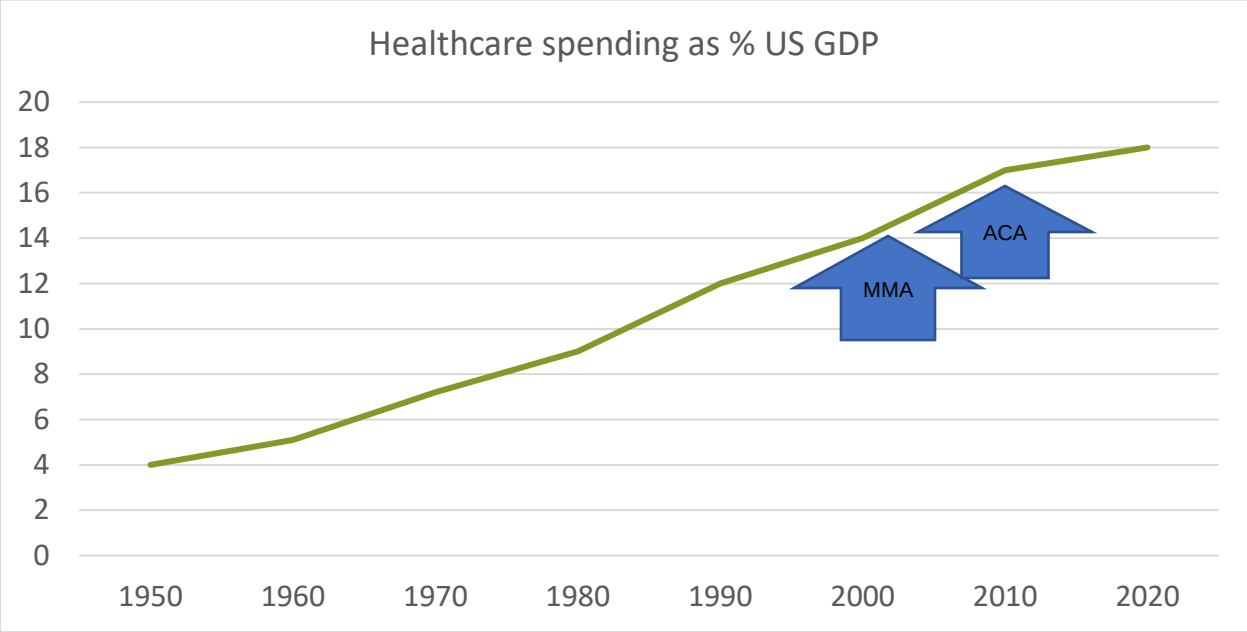
with wider access. By this definition, we can see internet success as an example – many more people have internet access today, at higher speeds, greater reliability and lower costs, than in 2003. Ditto cell phone use and automobile evolution and a host of other services and products.

> A quick note on car costs as an economic cost methodology example: we'll use the same approach to healthcare costs in a few pages.
>
> The average new car cost $24,770 in 2003, the average hourly wage then was $13 so the average person, working at the average wage, had to work 1905 hours to purchase a new car. (People generally financed new cars over time.)
>
> But in 2022, the average new car cost $47,150, the average hourly wage was $32 so the average person, working at the average wage, had to work only 1468 hours to purchase a new car. The 2022 new cars had a host of features that the 2003 cars lacked, including back up cameras, voice activated controls, onboard navigation, Wi-Fi and, increasingly, electric motors.
>
> Thus, despite the higher 2022 sticker price, the average 2022 new car, with all those additional safety and other features, cost less economically than the 2003 ones.

In healthcare, our reform definition means better health outcomes at lower costs for more people. Failure is the opposite: healthcare costs more, doesn't work any better than in the past and remains inaccessible to many.

How have we done on these metrics since 2003?

Healthcare spending as a percent of our total economy has risen since 1950 at about a constant rate. See the chart below. As healthcare spending grows, it consumes more and more of our economic resources. It inflates, in other words, more quickly than the economy as a whole. You can see that the Medicare Modernization Act had no impact on the rate of healthcare spending growth, while the Affordable Care Act has a minor impact. After both reforms, healthcare spending continues to grow faster than the overall economy and continues to consume more and more of our economic resources.



As a side note, ‘consume more and more of our economic resources’ means that we have fewer resources to invest in other parts of our economy as a percentage of our economy. Thus, as healthcare spending grows, other sectors – education, national defense, infrastructure development, etc. – have fewer resources available, again as a percentage of our total economy.

Phrased differently. this means that, as healthcare spending grows, we either spend less in these other sectors or borrow more to fund them fully.

Healthcare outcome improvements, though, do not demonstrate this same growth. See the chart below showing average life expectancy since 1950. I use life expectancy as the care quality metric since the fundamental function of a healthcare system is to keep people alive.

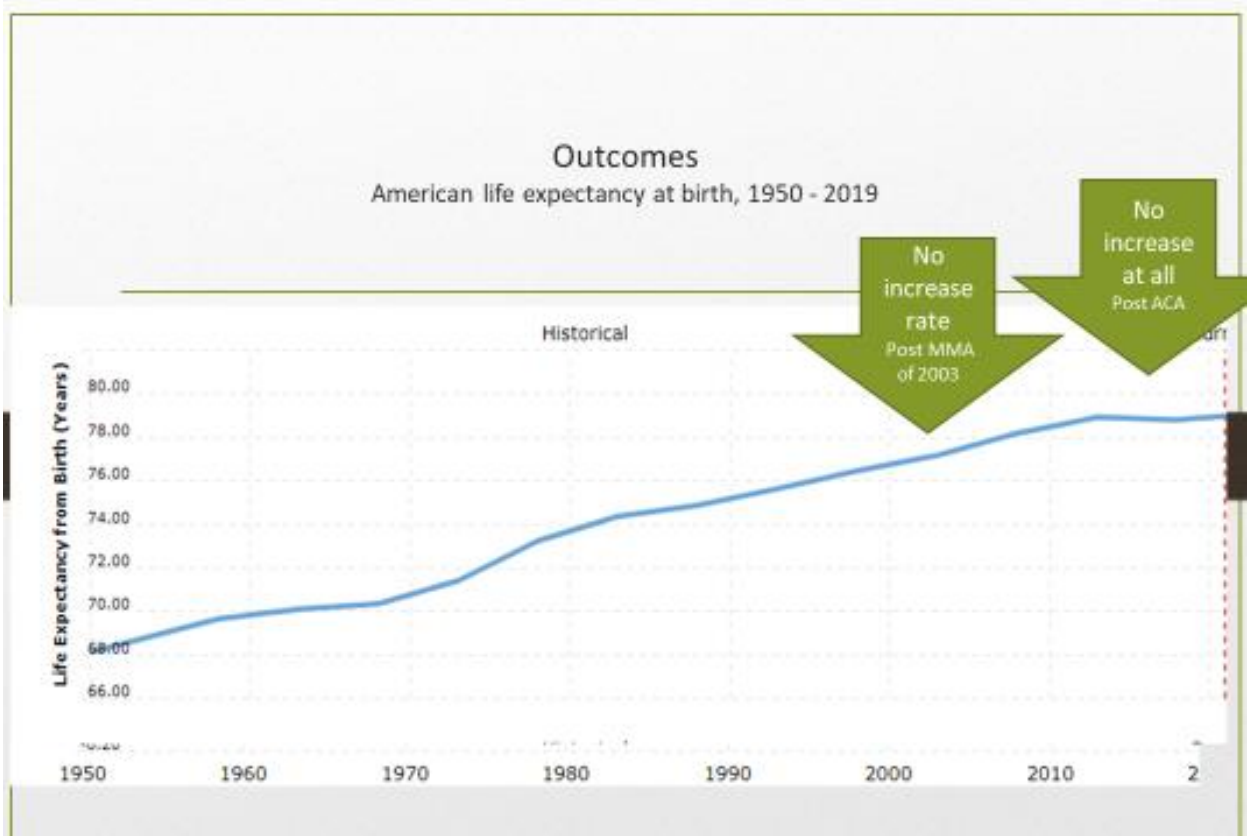
In economic / public policy terms, if our healthcare system keeps people alive longer, then it is arguably worth more funding; but if it does not, then I question whether the additional costs provide any value.

> Yes, I know that factors outside the healthcare system can impact longevity: wars, pollution, genetics, individual behaviors...a long list. But my point is that a healthcare system exists to keep people healthy and alive for longer. If a society identifies harms that limit longevity, then a good healthcare system will adapt and develop programs and treatments to ameliorate those harms. Take smoking, for example. Once identified as a cancer causing / life limiting agent, our healthcare system developed treatments – surgeries, early disease identification programs etc. – and preventive measures – patient education, smoking session programs,

medications to reduce smoker cravings, etc.- to combat smoking's negative effects. That's how a good healthcare system works.

A poor healthcare system limits the definition of 'healthcare' to functions it can perform well – knee surgeries and cataract removals for example - focuses on those, and claims that life extension is someone else's problem. A good healthcare system adapts and extends life. Is our healthcare system, post 2 reforms and by this definition, 'poor' or 'good'? See below.

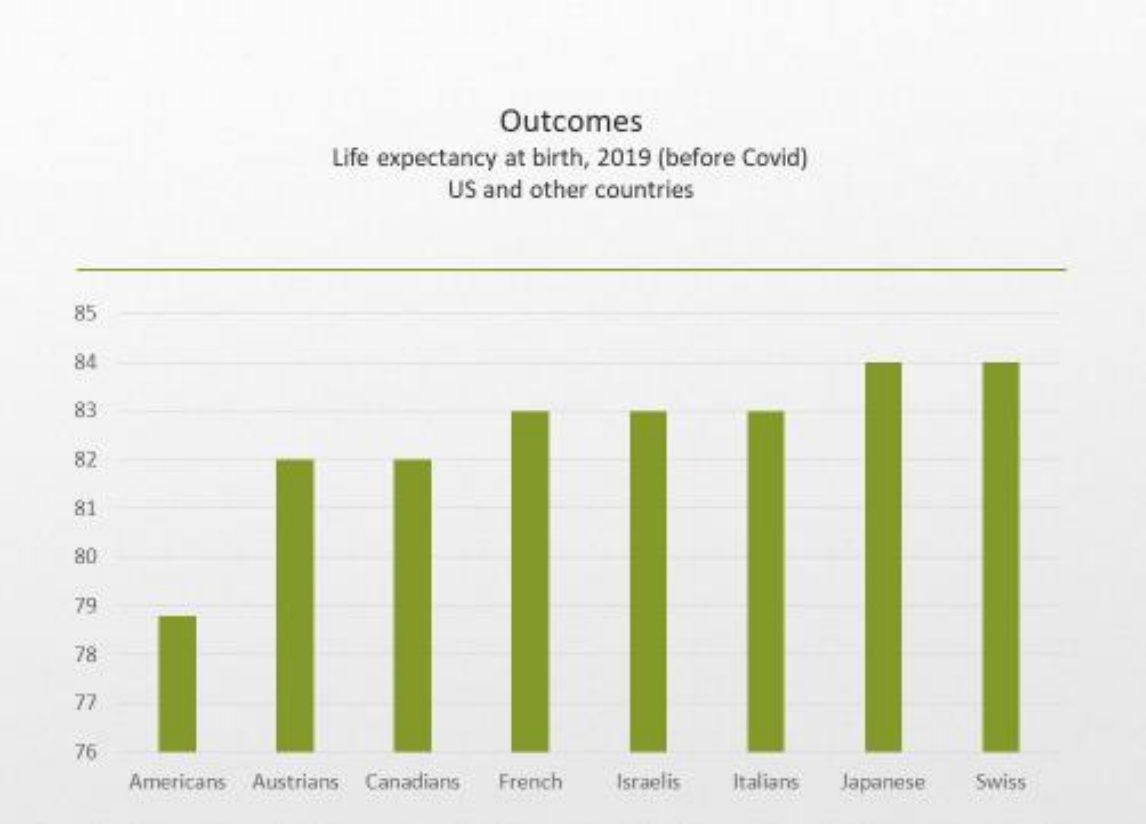
The chart below showing American average longevity at birth ends in 2019 on purpose: I did not want any Covid issues to interfere.



Four things to note here: first, the life expectancy annual increase is basically linear; we gained about as many life years in the 1950s as in the 1990s. Second, the biggest life expectancy gains occurred in the 1970s when we passed various public health measures like the Clean Water and Clean Air Acts. Third, the Medicare Modernization

Act had no impact on the rate of life expectancy growth; it was irrelevant. Fourth, interestingly and for some reason that I cannot explain, we saw no life expectancy growth post passage of the Affordable Care Act, again irrelevant.

In 2019, the last full year before Covid struck and all these metrics became murkier and more confusing, Americans lived less long than people in many (most?) other developed countries. See the chart below, generated **16 years** after passing the Medicare Modernization Act and **9** after passing the Affordable Care Act.



Neither the Medicare Modernization Act nor the Affordable Care Act impacted American's longevity. The underlying tends that existed when those healthcare reforms passed simply continued. The trillions of additional healthcare spending dollars encompassed in those legislations were irrelevant from a longevity perspective.

> Let's look at post-reform healthcare costs and outcomes as economists again, just like we looked at auto costs and quality a few pages ago. We'll use two different methodologies.
>
> First, the methodology we used in auto costs a few pages ago. In 2003, the US spent about $5,700 per capita on healthcare. The 2003 average hourly wage was about $13 so the average person, earning the average wage had to work 438 hours to pay for healthcare.

In 2019, the year before Covid hit, the US spent an average of about $11,500 per capita on healthcare. The 2019 the average hourly wage was about $15.35, so the average person, earning the average wage had to work 749 hours to pay for healthcare.

The analysis above shows that healthcare was much more expensive in 2022. It doesn't tell us if the more expensive healthcare system in 2019 worked better than the 2003 version like in the auto example above, where today's cars are better and safer than the 2003 versions.

So our second approach to thinking as economists will incorporate a productivity and quality indicator to measure healthcare system improvement (or lack thereof) over time. We'll divide average per capita healthcare spending per year by average longevity and compare that number in 2003 – the last year before passage of the Medicare Modernization Act - and 2019, the last year before Covid.

In 2003, again, the US spent about $5,700 per capita, we lived, on average, about 77 years, so our ratio of per capita spending to expected life years was 74. That doesn't mean anything in a vacuum but allows us to compare systemic quality and productivity over time.

In 2019, again, 16 years after passing the Medicare Modernization Act and 9 after passing the Affordable Care Act, we spent about $11,500 per capita and lived, on average, about 79 years. Our 2019 ratio of per capita spending to expected life years was 147, about 73 points higher than our 2003 indicator.

Could this increase be due to overall inflation? One online inflation calculator suggests that $1 in 2002 was equal to $1.42 in 2019.[209] Applying this factor, our healthcare efficiency metric of 74 in 2003 would reasonably be expected to rise to 105 in 2019 due to inflation, a rise of only 31. But it increased by 75. More than half the increase in our metric was something other than inflation.

What was it? My presumptive answer: healthcare system inefficiency, defined as outcomes per dollar spent. Leaving inflation out, we spent far more for each life year in 2019 than in 2003. I'll suggest 4 types of inefficiency or system value reductions.

- One type revolves around prices. Healthcare providers, pharmaceutical companies, medical device manufacturers etc. raised prices far more than at average overall inflation rates because they could – an indicator of market strength. We'll discuss market consolidation later in this chapter.

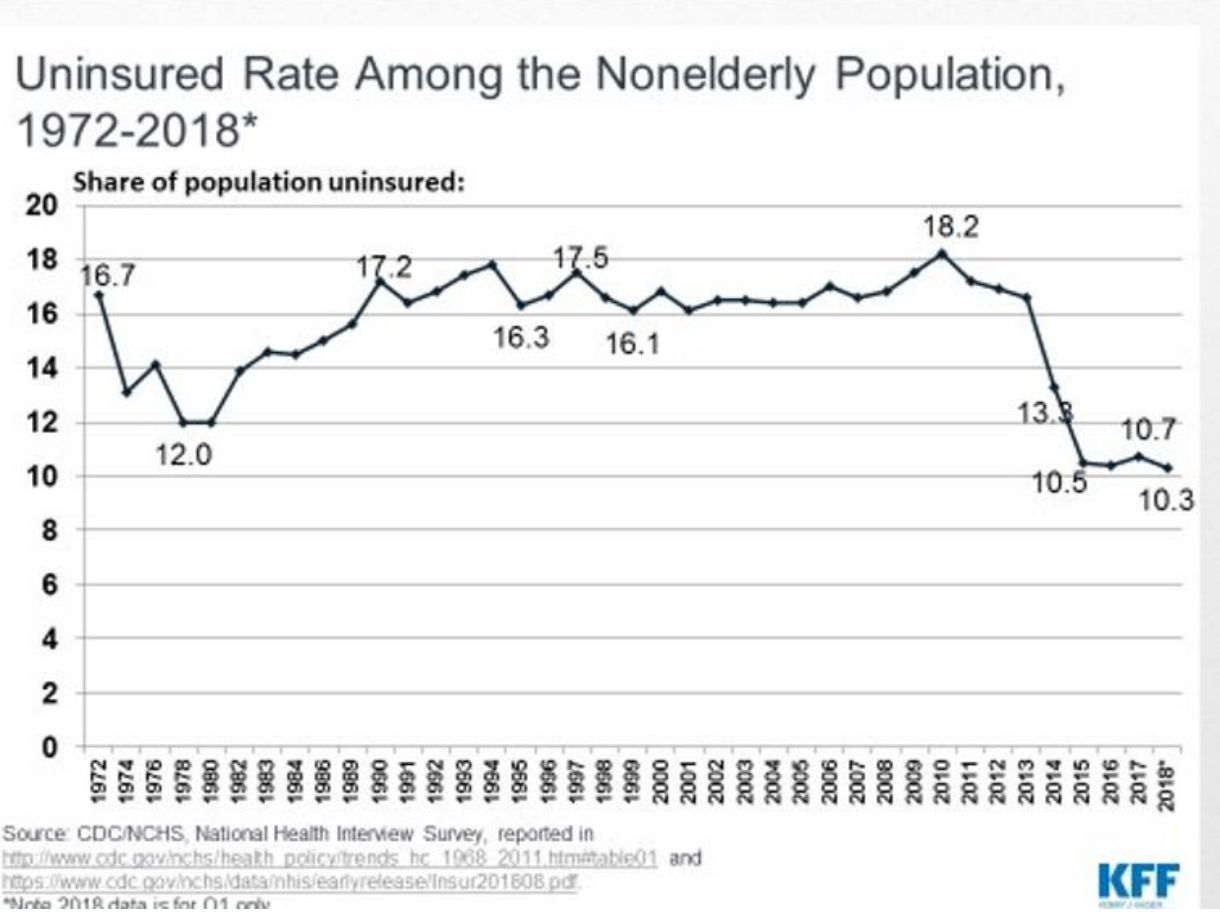
[209] CPI inflation calculator https://www.in2013dollars.com/us/inflation/2002?endYear=2019&amount=1

- A second type of inefficiency comes from patient coding. According to the HHS inspector general, “hospitals increasingly billed for inpatient stays at the most expensive level from FY2014 to FY2019…these stays are vulnerable to…upcoding.”[210] Upcoding means labelling a patient as sicker for financial and reimbursement purposes.
- A third type of inefficiency comes from the mix of medical services provided in 2019 vs. 2003. Providers in 2019 sometimes (often?) opted for more expensive treatments when less expensive ones existed, or new drugs that worked no better than older ones might dominate the marketplace, or new devices that worked no better than older ones.
- A fourth type of inefficiency might come from a changed patient population needing medical care. The 2019 folks might be older, sicker or more obese than the 2003 group.

There is good evidence that all 4 factors combined in 2019 to describe that increase in our healthcare efficiency metric. We’ll discuss some of this below. Regardless, though, of the exact cause, my underlying point here is that neither healthcare reform package – the 2003 Medicare Modernization Act nor the 2010 Affordable Care Act, nor both together – created a more efficient healthcare system that provided better outcomes at lower costs. Both reforms failed on that efficiency scale.

Let’s turn now to coverage expansion, one of the 3 goals of any economic reform program. Post-Medicare Modernization Act – the legislation that was supposed to reduce healthcare costs and thus stimulate higher coverage rates due to the lower costs of health insurance – our **national uninsured rate** did not decrease. But post-Affordable Care Act the national uninsured rate did decrease, from about 18 to 10% of our total non-elderly population, or from about 50 to 30 million people. See the chart below.

[210] HHS Inspector General Data Brief, **February 2021** OEI-01-18-00380



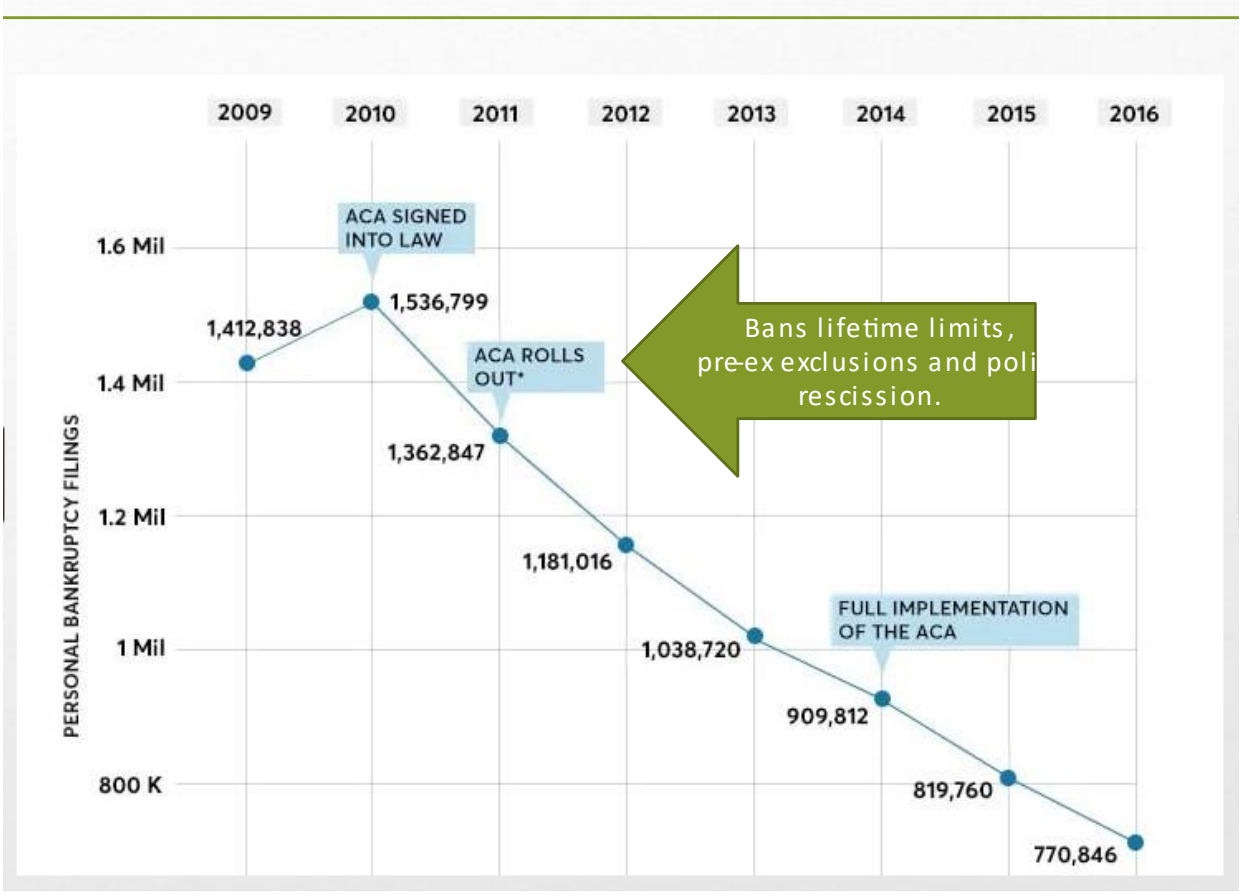
Wider health insurance coverage post-Affordable Care Act but no life expectancy gain. We'll discuss why below, but this initial analysis raises an interesting question: should we grade healthcare reforms *only* on coverage rates? After all, coverage rates are something we can control fairly easily (nothing in healthcare is easy but expanding coverage is mainly a political issue while extending longevity includes medical, economic, social, genetic, educational, behavioral and other issues.)

Some people say 'yes', that the government's role should only be to ensure coverage while the private sector – doctors, hospitals, pharmaceutical companies etc. - should focus on care quality and cost. The government's role is only to promote access; the private sector's is to promote quality. Thus 'good healthcare reform' by this definition, brings down the uninsured rate. Period.

> I find this a strange argument. Extending it to the logical conclusion, it makes the Canadian or British healthcare systems better than ours. After all, they cover everyone while we only mange to insure about 90% of Americans. Few brokers, in my experience, and fewer politicians I suspect, would embrace that conclusion.

All this supports my skeptical position about healthcare reform, that Americans have no clear national vision of what a good healthcare system actually is. Yet each of us, working in the healthcare arena, claims to using our own, parochial one: a good healthcare system is one that pays me well. Odd but, unfortunately I suspect, true.

There is, though, one unequivocal, clear winner from healthcare reforms since 2000 – people declaring bankruptcy from medical expenses. Our national bankruptcy rate has fallen by about half since passage of the Affordable Care Act, from about 1.5 million to 750,000 annually. See the chart below. Many, if not most bankruptcies in the US are caused by medical bills.



While reducing the number of personal bankruptcies is clearly a good thing, I wonder if there might be alternative strategies available to accomplish this goal – other, that is, than revamping the entire US healthcare system. Nonetheless, I take this as a healthcare reform win, the only one I see.

Healthcare reform tools

Let's now consider the tools available to healthcare reformers.

Market based reforms, like the Medicare Modernization Act, focus on so-called 'bottom up' or consumer driven incentives. These market based folks like to deregulate so the market, i.e. the interactions between medical care suppliers and medical care purchasers, takes place as efficiently as possible. Market based reformers dislike mandates and requirements, seeing these are obstacles coming between clinicians and patients. They dislike, in other words, things like insurance coverage requirements or minimum benefit packages that, in their eyes, raise prices unnecessarily. The marketplace, they argue, would differentiate 'good' from 'bad' insurance policies more efficiently.

> Classical economic theory holds that an unencumbered buyer with access to all available information, will choose the highest quality / lowest cost products available. The market based reform team tries to apply this economic principle to healthcare.

Market based reformers like competition, figuring that more competition will force medical care suppliers (providers, clinicians, physicians, pharmaceutical companies and insurers) to find better / less expensive ways to treat sick patients. This becomes, they hope, a virtuous circle in which each product improvement / price reduction move stimulates others in the same direction.

Market based reformers like association health plans, seeing them as competition to large insurance companies. They like price lists and reference pricing figuring that patients will use price as a choice consideration, purchase lower priced care and therefore exert downward pressure on medical prices.

> Reference pricing means that an employer or insurance policy will pay a stipulated amount for a specific treatment, say $5000 for knee surgery for example. If the patient wants the $6000 treatment, or prefers the $6000 surgeon, then he or she pays the additional $1000. In theory, reference price lists reflect the lowest priced medical providers in an area, thus stimulating other providers to lower their own prices to compete.

Market based reformers like Health Savings Accounts and HRAs, both of which put money into patient hands, on the theory that patients will spend their money more wisely than a huge, bureaucratic, bulky insurance carrier.

Government based reforms, on the other hand, use more top-down tools. This team likes regulations that force medical providers and carriers to act in certain ways. They don't trust the market to work its magic in healthcare. These folks like mandates, for example, that require employers to provide health insurance to employees. They like

the individual mandate that requires everyone to have health insurance, this to avoid so-called ‘insurance death spirals’ in which only sick people purchase insurance.

> Insurance death spirals occur when healthier people don’t purchase health insurance, but sicker people do. This drives up premiums, so ‘slightly sicker’ people stop purchasing and only the sickest remain on the insurance books. This makes premiums too expensive for most people, uninsured rates skyrocket and the system collapses.
>
> Insurance operates on the law-of-large-numbers principle and needs lots of healthy people enrolled to counter the costs of sick people. That is why the Affordable Care Act instituted the individual mandate.

Government based reformers also like a required minimum set of benefits in any ACA compliant policies. They worry that carriers might lower their policy prices by leaving out important benefits. Policy holders, either unsophisticated purchasers or victims of unscrupulous sales tactics, might not learn of the benefit gaps until they get a bill, potentially a huge one. In other words, government based reformers see a minimum benefit requirement as consumer protection far less than inflationary. Our market based reform friends, discussed above, see the situation very differently.

The Affordable Care Act created health insurance exchanges, or online marketplaces where individuals could shop for health insurance. Exchanges list all available policy options from all available carriers in a region, encouraging consumers to compare prices and coverages before purchasing. By and large, exchange offered plans cover similar benefits but with different cost sharing.

> Cost sharing means that the policy holder and insurance company each pay a portion of the premium and medical costs. Some policies might cost less but force the insured to pay more at the point of service; others might cost more but have a lower annual deductible.

Which team of healthcare reformers is right - the market based or government based folks? Which approach will reduce healthcare spending, extend life expectancy and provide universal insurance coverage? The unsatisfactory answer is that no one knows for sure, but both teams are convinced of their own infallibility with almost religious zeal. The Medicare Modernization Act passed the Senate in 2003 with 45 Republican votes and only 9 Democrats; the Affordable Care Act passed with 60 Democrats and no Republicans. Given that neither reform reduced costs, extended life expectancy or provided universal insurance coverage, I suspect that the real purpose of healthcare reform is to fight the good fight, raise money from political supporters and stay in office rather than actually to solve any of our myriad healthcare system problems.

But that’s just my own point of view.

Why reforms always fail to reduce costs, extend longevity and provide universal access?

I would argue that all our healthcare reforms since 2003 have ignored the 3 elephants in the room: obesity, industry consolidation and so-called 'diseases of despair' a new term to describe suicide, alcoholism and drug abuse. Any one of these 3 elephants would have made true healthcare reform difficult; all three together make healthcare reform impossible and generate the dismal results we see today. Let's address each elephant in turn and do so in the classical economic terms of supply and demand. But in our case, we'll go in reverse order, demand and supply because this makes our story flow somewhat more logically.

Obesity on the demand side of our 'supply and demand' equation, suggests why Americans need so much medical care. High national obesity rates work in opposition to our 3 healthcare reform goals: obesity decreases life expectancy, increases healthcare costs and therefore exacerbates our uninsured problems.

As I researched the obesity data for this lecture, I found three examples of obesity costs that surprised even me, and I study this stuff for a living. First, as people become more obese, their need for knee surgery rises dramatically. For this analysis, remember that a normal or healthy Body Mass Index tops out at 25.

> Body Mass Index or BMI is our standard weight and obesity metric. It divides someone's weight in kilograms by their height in meters squared. You can find lots of online BMI calculators. A BMI between 18.5 and 24.9 is considered healthy. Below 18.5 is considered underweight, above 25 overweight. A BMI above 30 is labelled obese. The chart below shows BMI rates for a 6 foot tall person at different weights, simply as an example:
>
> - At 147.5 pounds, the 6 foot tall person has a BMI of 20
> - At 184 pounds, the 6 foot tall person has a BMI of 25
> - At 221 pounds, the 6 foot tall person has a BMI of 30
> - At 258 pounds, the 6 foot tall person has a BMI of 35
> - At 295 pounds, the 6 foot tall person has a BMI of 40

As the BMI increases, the need for knee surgery increases proportionally more. Here are estimates from the American Academy of Orthopedic Surgeons for the rate of total knee arthroscopy by BMI. Compared to a normal weight person,

- Someone with a BMI of 30 is 8.5 times more likely to need knee surgery;
- Someone with a BMI of 35 is 18.7 times more likely, and
- Someone with a BMI of 40 is 32.7 times more likely.

We'll label that example 'surprising cost impacts of obesity #1'.

Next, consider the need for bariatric surgery, or surgery to remove part of your stomach to reduce your weight. People generally opt for this procedure after diets and other

lifestyle changes have failed. The US annually spends about $180 billion on bariatric surgery and related medical procedures, that approximation in 2020 dollars.

Compare that to our annual cancer treatment expenditures of around 200 billion or so. Almost as much. But note that virtually everyone in American who gets diagnosed with cancer gets treated. By contrast only about 1% of the eligible obese population has so far had bariatric surgery. That's a huge population appropriate for and needing the procedure. We'll label this 'surprising cost impacts of obesity #2'.

And third, consider the additional Covid costs of obesity, including more severe symptoms, longer hospitalizations, more costly treatments and poorer outcomes. (This section was written in early 2022. Over time Covid treatments have evolved so some of this might be out-of-date when you read it.) According to Dr. Dariush Mozaffarian, dean of the Tufts Friedman School of Nutrition Science and Policy, as quoted in the Boston Globe on November 22, 2021 in an article The Obesity Pandemic Has Made Covid Much More Deadly, "64 percent of all the hospitalizations from COVID could have been prevented, if we had a metabolically healthy population, without the rates of obesity and diabetes and hypertension that we have now."

Let's try to calculate the obesity costs of Covid using Dr. Mozaffarian's estimate above. First, we'll assume the average hospital cost of treating a Covid patient at $100,000. Admittedly rough, this comes from the Becker's Hospital Review analysis by state.[211] To simplify, the average Massachusetts hospital costs of treating a complex Covid patient in 2020 – 2021 were $209,200; the average Massachusetts hospital cost of treating a non-complex patient were $62,900. Other states are basically in the same ballpark. $100,000 per patient is 'not obviously absurd' to quote one of my old grad school professor's mantra.

Meanwhile, the American Hospital Association estimates over 80 million Covid cases and 4.6 million hospitalizations.[212] Multiplying those 4.6 million hospitalizations times $100,000 per hospitalization comes to a whopping $460 billion. Dr. Mozaffarian's 64% of Covid hospitalizations attributable to obesity is almost $300 billion.

That's a huge cost! We'll label this 'surprising cost impact of obesity #3'.

I hope I've made the basic point that obesity is a key driver of healthcare spending and adds a huge amount to our healthcare costs. Which raises the critical question of how well we have done on the obesity front since we reformed healthcare 2003. Presumably

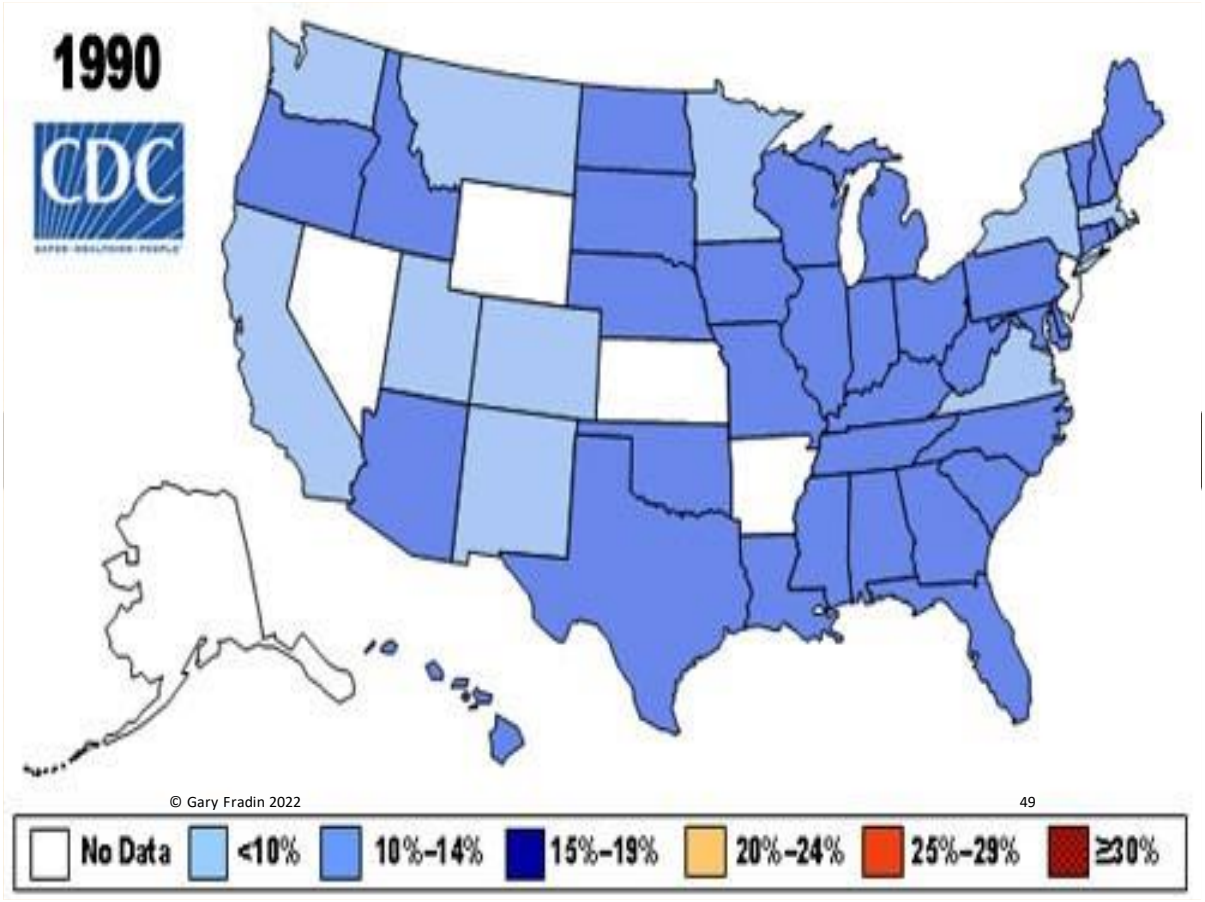
---

[211] Average charge for Covid 19 hospitalization by state, Alia Paavola, Becker's Hospital Review, October 20, 2021

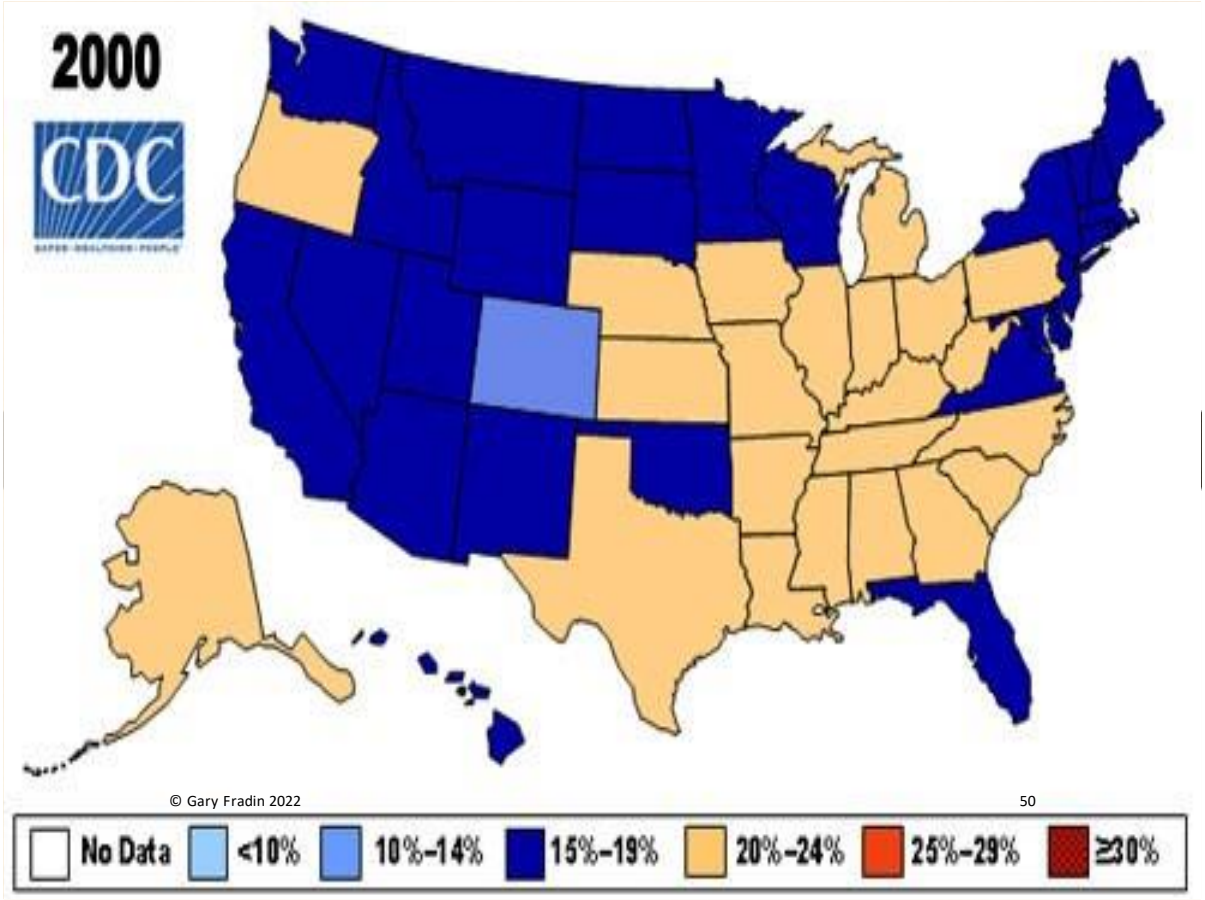
[212] Rising growth in expenses and rising inflation fuel financial challenges for America's hospitals and hospital systems, https://www.aha.org/guidesreports/2022-04-22-massive-growth-expenses-and-rising-inflation-fuel-continued-financial#:~:text=Medical%20supply%20expenses%20grew%2020.6,%2C%20from%20pre%2Dpandemic%20levels.

lower obesity would work toward our healthcare reform goals of better outcomes at lower costs for more people, which greater obesity would work in the opposite direction. In fact, I'll push this even further and suggest that healthcare reforms that fail to address or control obesity set themselves up for failure.

Let's see how we've done and use CDC charts as our guide. We'll start in 1990, before our healthcare reform packages, to set a baseline. The chart below shows obesity by state in 1990. The 4 white states mean 'no data', the 19 light colored states have less than 10% of their populations obese, and the remaining darker states have 10 – 14% of their populations obese. Note also that the CDC's grid at the bottom tops out at greater than 30% obese, a situation the CDC presumably figured unlikely to occur.

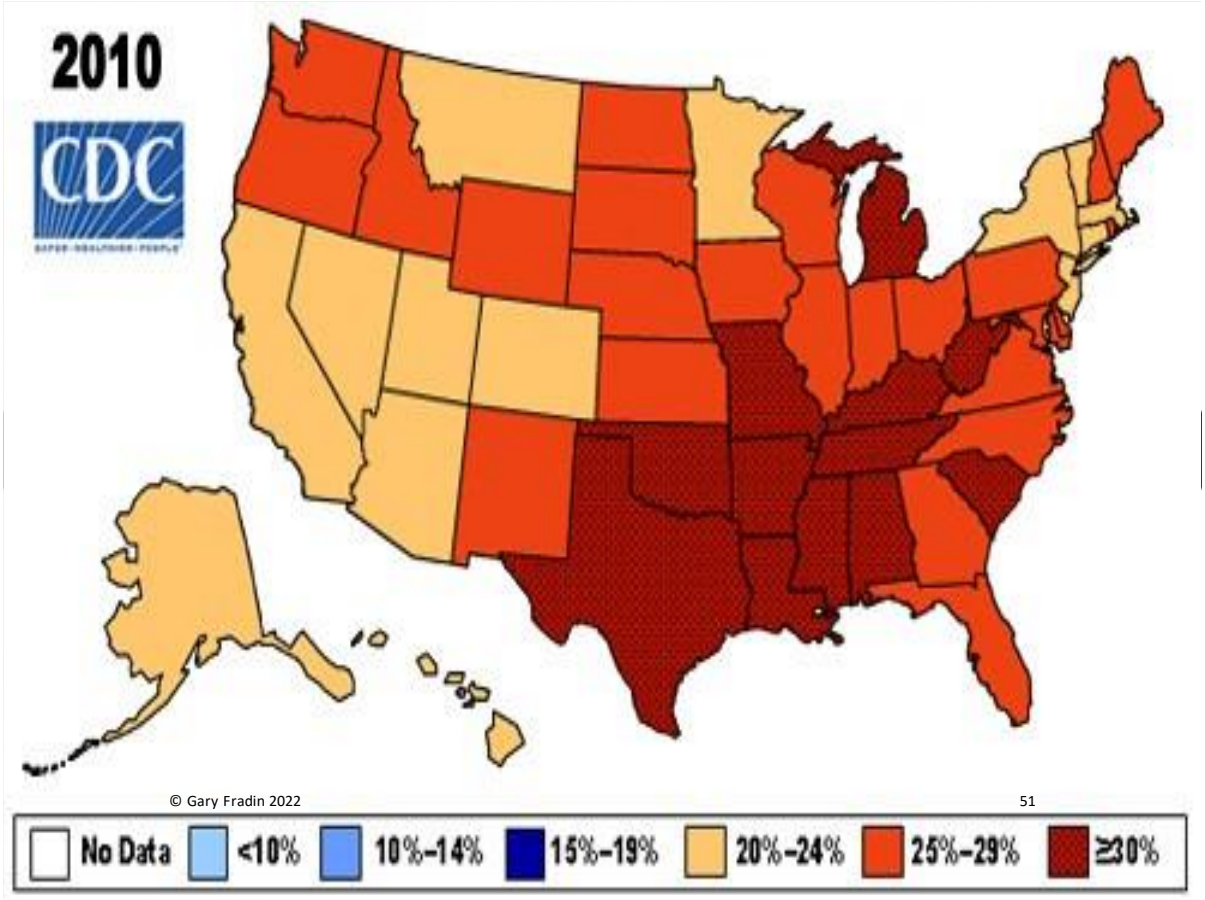


Then, 10 years later, our map changed. Same CDC methodology, same metrics, same format but a vastly different obesity map in only 10 years.



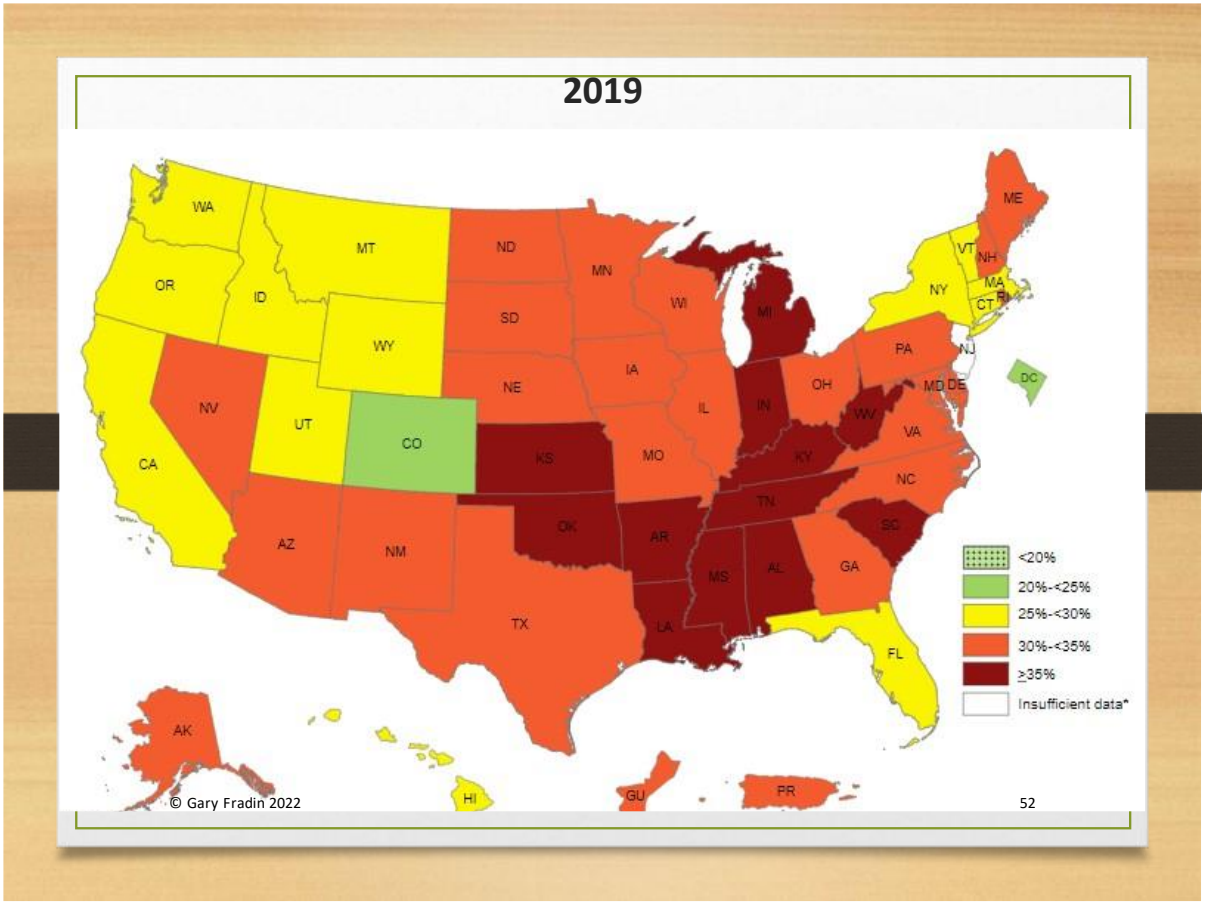
No state is less than 10% obese and only Colorado is less than 14% - the highest level of any state just 10 years before. Now, in 2000, over half the states are 20 – 24% obese, a level no one had reached in 1990.

We then passed the Medicare Modernization Act and the Affordable Care Act…and our map changed dramatically again.



Forget about being less than 20% obese, a level no state had approached just 20 years before. Now no state is less than 20% obese and 11 states had hit the CDC's top limit of 'greater than 30%' obese, a situation the CDC thought unlikely just 20 years previously.

This led the CDC to rethink their format and methodology. In 2019, again the last year before Covid hit, the CDC had a completely different map.



Only 2 states were less than 20% obese and only 14 less than 30% obese. All the others were greater than 30% obese and a handful exceeded 35%. That's exceptional growth since passage of the Medicare Modernization Act and Affordable Care Act, one that makes achievement of those reform goals overly difficult.

A different CDC study estimated that 42% of us were obese in 2018 and Dr. Mozaffarian, our old friend from the Tufts School of Nutrition, estimated at 1 in 4 teenagers were pre-diabetic.

How, I wonder, can we reduce healthcare spending, improve healthcare outcomes and insure more people with a national obesity rate of 42% and 25% of US teenagers suffering from pre-diabetes. My short answer: you can't.

Let's now move from obesity on the demand side of our 'supply and demand' analysis to the supply side and discuss industry consolidation in the healthcare arena. As a basic economic principle, if you have increasing demand for services – which we have from obesity – and fewer medical care suppliers, then you will see prices rise. Let's examine our post-reform history.

First, hospitals have merged to create large hospital systems. Though they had been merging fairly actively prior to passage of the Affordable Care Act – in Boston, for

example, Brigham and Women's merged with Mass General in 1994 – mergermania continued in the hospital sector. Between 2011 and 2017, i.e. post passage of the Affordable Care Act, some 1587 hospitals or about 25% of the US total, merged. These merged hospital systems became the largest (or 2nd largest depending on Amazon) employer in most states. This middle class or wealthier employee population represented votes at the state level to promote the hospital system's interests. The hospital's coffers represented lobbying dollars to promote the hospital system's interests. The merged hospital system spoke with one voice in negotiations with health insurers. And the hospital's wealth funded high priced lawyers to defend the hospital system's interests against aggressive state attorneys general who wished to curb hospital dominance.

The net result was higher medical prices with, according to a 202 analysis in the New England Journal of Medicine, no significant change in 30 day readmission or mortality rates, i.e. no care quality improvement.[213] The Inspector General at the US Department of Health and Human Services phrased this differently in 2021 saying "hospitals increasingly billed for inpatient stays at the most expensive level from FY 2014 through FY 2019" because "these stays are vulnerable to … upcoding".[214] (Upcoding means labelling the patient as sicker to get a higher insurance or Medicare payments.)

The net result: fewer hospitals, caused by the huge number of hospital mergers, used their market power to raise prices.

Hospitals not only merged together but also purchase physician groups to act as 'patient feeders', directing patients to specific hospitals. Between 2016 – 2019, hospitals purchased some 9000 physician practices, again constraining the supply of medical care providers in a region.

Then private equity groups entered the picture, purchasing about 22 physician practices between 2018 and 2019. Private equity purchasers had specific goals: either make a good return on their purchase investment or build an asset for future sale, or both. This motivated physicians to perform more procedures at higher prices. According to a 2022 American Medical Association study 'prices rose 26% in private equity-backed practices, while prices at similar practices without private equity investment grew by 12.9%'.[215]

[213] Beaulieu et al, Changes in Quality of Care After Hospital Mergers and Acquisitions, New England Journal of Medicine, 2020

[214] HHS Inspector General Data Brief, February 2021 OEI-01-18-00380

[215] Zhu, Private Equity Acquisitions of Physician Medical Groups, JAMA Network Research Letter, Feb 18, 2020

Merged hospitals, combined with acquired physician practices, reduced the number of independent, competitive, healthcare providers dramatically post-healthcare reform. (The actual number of physicians did not decrease, just the number of businesses competing.) Faced with less competition, these large, merged businesses did what any large business would do in similar circumstances: they raised prices. How, I wonder, do negotiations go between a hospital system that controls 75% of the beds in a region and most of the physicians, and an insurer who has a 15% market share?

So far, I've suggested that demand for healthcare services rose post-healthcare reform due to obesity (among other factors) and the supply of healthcare providers available to deal with that increased demand fell due to industry consolidation. Now let's switch focus and discuss the environment in which all this took place. We'll introduce a new term: 'diseases of despair' or alcoholism, drug abuse and suicide combined.

People who die from alcoholism, drug abuse or suicide are said to die 'deaths of despair'. Some numbers to set the scene:

- Alcohol is linked to 95,000 annual deaths according to the CDC. This is about double gunshot deaths.[216]
- 500,000 Americans have died from drug abuse since 1999 including 107,000 in 2021.[217]
- 48,000 annual suicides.[218]

Note that neither the Medicare Modernization Act of 2003 nor the Affordable Care Act of 2010 ameliorated this mortality trend.

AMA 2022 study, Robeznieks, 'Physicians warned of the pitfalls behind private equity promises, Aug 1, 2022 https://www.ama-assn.org/practice-management/private-practices/physicians-warned-pitfalls-behind-private-equity-promises

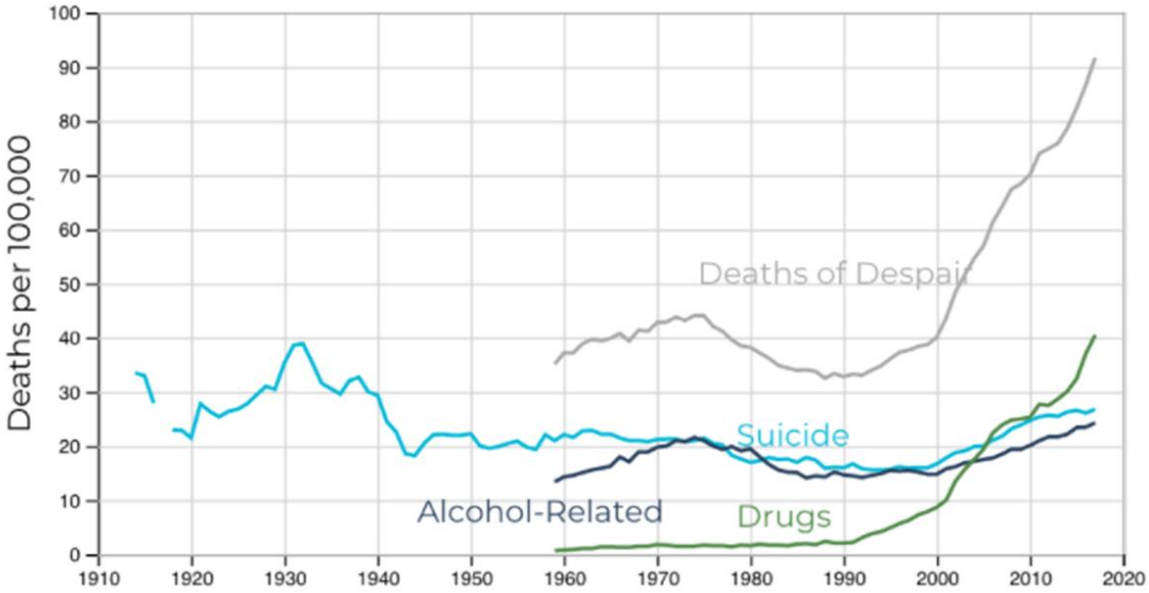
[216] Forbes https://www.forbes.com/sites/joshuacohen/2018/07/19/diseases-of-despair-contribute-to-declining-u-s-life-expectancy/#277e57f0656b, Gunshot deaths https://www.cdc.gov/nchs/fastats/injury.htm

[217] CDC estimate https://www.cdc.gov/media/releases/2020/p1218-overdose-deaths-covid-19.html

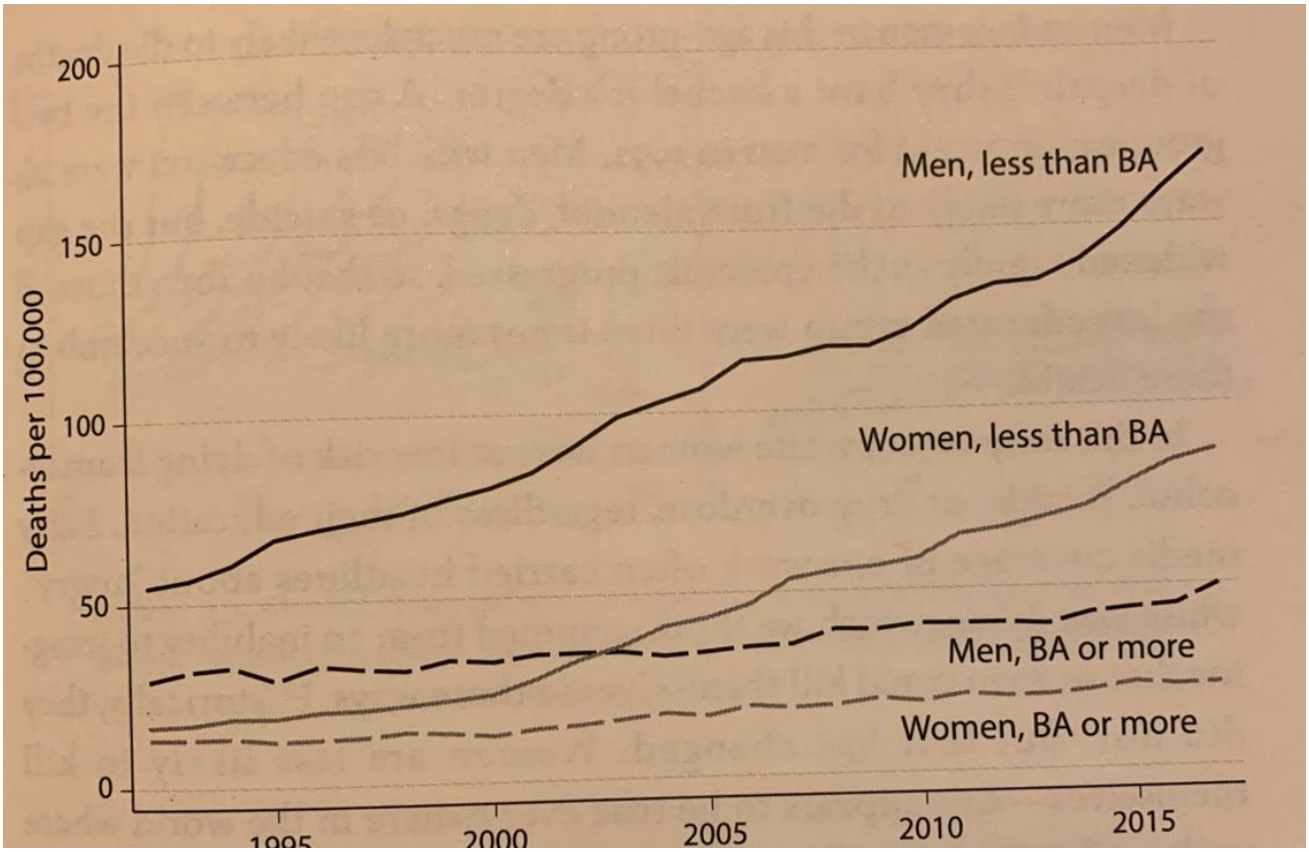
[218] Reference for Figure 3 chart **SEP 05** 2019 United States Congress Joint Economic Committee "Long term trends in deaths of despair"

https://www.jec.senate.gov/public/index.cfm/republicans/2019/9/long-term-trends-in-deaths-of-despair

Figure 3. Deaths of Despair and Its Components, 1914-2017, Crude Rates, Non-Hispanic Whites Ages 45-54



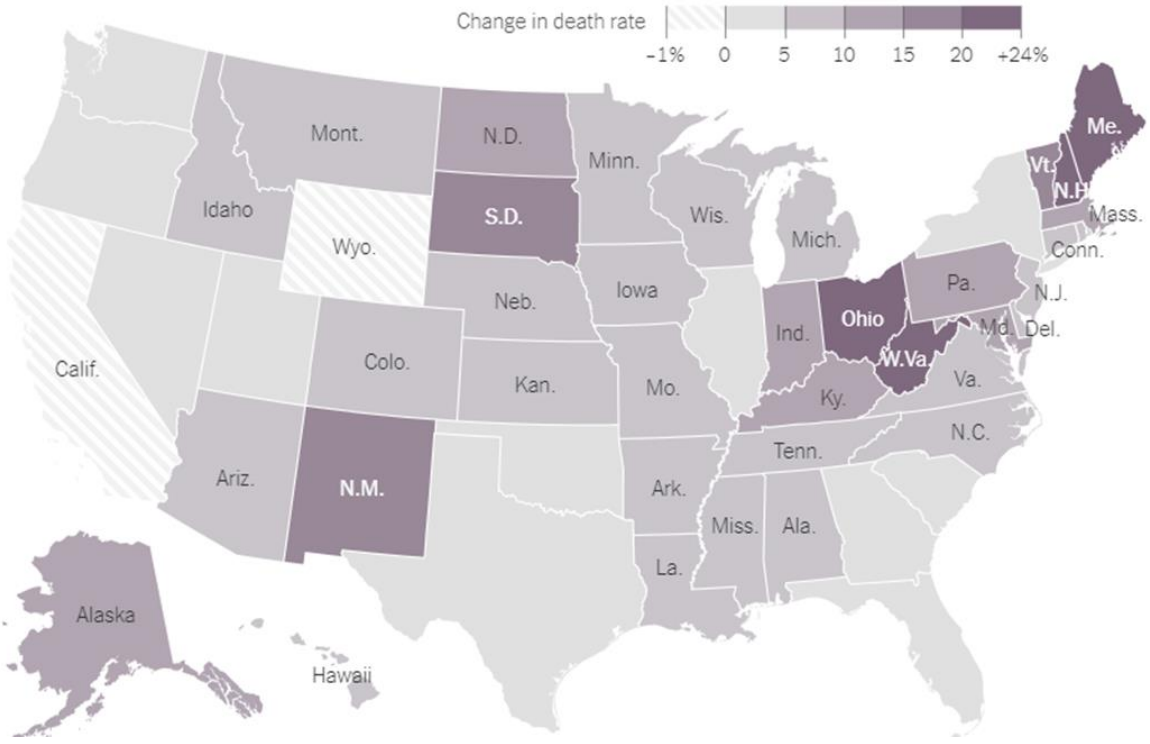
Deaths of despair fall disproportionately on middle aged, white, non-college educated men. The following chart, ‘drug, alcohol and suicide mortality among white, non-Hispanics aged 45 – 54’ shows this. It’s from the 2020 book Deaths of Despair by Angus Deaton and Anne Case.



The next chart shows the net impacts of both healthcare reforms, the Medicare Modernization Act and Affordable Care Act. It shows the increase in mortality between 2010 and 2017 among people aged 25 – 64. These are the folks who should finish their education, begin and develop their careers, get married, have kids, build community and pay taxes. In all states except California and Wyoming, the death rate of this group has increased since passage of the ACA. In the darkest colored state, the death rate increase has been 20% or more.[219]

Death rate **increases** per state 2010 - 2017, people aged 25 – 64

[219] NY Times, It's Not Just Poor White People Driving a Decline in Life Expectancy, Kolata and Tavernise, Feb 18, 2021 https://www.nytimes.com/2019/11/26/health/life-expectancy-rate-usa.html



I understand the components of healthcare reform and what they are supposed to do. Health insurance exchanges are designed to help people shop more easily for health insurance policies. Eliminating annual and lifetime caps allow patients to receive more medical care. Health Savings Accounts combined with annual deductibles and price lists can help people purchase lower cost commodities like MRIs, X rays and a few other relatively low cost products.

But I don't understand how expanding HSAs, increasing insurance options or publishing medical prices reduce obesity, because they don't.

I don't understand how any component of healthcare reform helps people navigate through our 'insane' (Harvard Business School's Regina Herzlinger's term) or 'uniquely dysfunctional' (Columbia School of Public Health's Jonathan Engle's term) healthcare system when 1 hospital system controls 70% of the physicians and beds in a region, because they don't.

And I don't understand how any component of healthcare reform addresses deaths of despair because they don't.

In other words, I don't see any financial, political, insurance or payment format solution to our healthcare system problems. We've seen in the combination of Medicare Modernization Act and Affordable Care Act that incremental reforms don't work. And we know that dramatic, radical healthcare system reforms are politically impossible. The situation looks hopeless.

What might save us?

To answer this question, I propose a quick review of America's history of change, an analysis of how we have solved unsolvable problems in the past. By studying how we solved these problems in the past, we can see how we will likely solve our healthcare system problems in the future.

I am guided in this analysis by two thoughtful comments. The first comes from Herbert Stein, a well-known economist in the last century – Chairman of the Council of Economic Advisors to Presidents Nixon and Ford, for example – who famously observed that 'trends that can't continue, won't'. Something, in other words, always intercedes to avoid utter catastrophe. I suspect Stein is right about this.

The second comes from Mark Twain who equally famously observed that 'history doesn't repeat itself but it rhymes.' Historical examples, in other words, don't tell us exactly what will happen in the future but they suggest a direction.

Let's explore a non-healthcare problem from the late 1800s that could have destroyed civilization as we know it. The problem is horse refuse in major cities. We'll focus on New York since I have some data about this courtesy of the New York Times.[220]

Building technologies changed in the 1870s or so, with Andrew Carnegie's commercialization of steel. Buildings were no longer limited to 4 or 5 stories but could now reach 40, 50 or more. This led to more people living and working per acre.

At the same time, immigrants flooded to New York, increasing the city's population from 950,000 in 1870 to 3.4 million in 1900. More people jammed into tighter spaces meant more need for goods and services on, for example, Manhattan Island.

All these goods and services were transported by horse and buggy. In fact, according to the New York Times, there were more than 150,000 horses in New York in 1880. Each horse, according to their estimate, generated 22 pounds of manure per day. That's 1,650 tons! Plus, again the Times' estimate, 10,000 gallons on urine each day. Plus, again the Times' estimate, about 15,000 horses died each year on the streets – not a bad estimate assuming that each of the 150,000 horses lived an average of 10 years.

All this – the manure, the urine and the horse carcasses – combined to pose a huge disease threat, potentially big enough to destroy cities as they then existed.

Let's now apply current healthcare reform thinking to the horse refuse problem. The market based approach to healthcare reform, a.k.a. the Medicare Modernization Act, would have proposed deregulating horse management, refuse collection and refuse dispersal. Market based thinkers like to deregulate. They probably also would have proposed tax breaks for companies that researched, implemented and demonstrated

[220] Lee, When Horses Posed a Public Health Hazard, NY Times, June 9, 2008

new and ‘better’ horse refuse control technologies and practices. Market based thinkers like tax breaks. They would have wanted to create an environment in which entrepreneurs and business builders would flourish, figuring that the market would solve the horse refuse problem more efficiently than any other approach.

By contrast, the government solution team, a.k.a. the Affordable Care Act thinkers, would have proposed a new government authority to oversee and manage horses. They likely would have wanted more regulations to control every aspect of horse management from feeding to housing to exercising and to refuse collection and dispersal. They would have wanted to license horse owners and users to ensure that the newest thinking and technologies applied to horse rearing. In short, the government solution team would have wanted to pass lots of rules to regulate as much about horses as possible.

I hope this brief historical example shows how both approaches – the market based and government solution – would have failed miserably to solve New York City’s horse problem…just as they have failed to solve our healthcare system problems.

We know what ultimately solved the horse problem in New York – someone invented a car. The horse problem disappeared shortly thereafter. A new technology, unrelated to horse refuse, completely changed the paradigm and eliminated the manure problem.

Our question has changed. It’s no longer ‘what form of healthcare reform can we best solve our healthcare system problems?’ Instead it has become ‘what is the healthcare equivalent of cars?’. I have 4 ideas.

First, the combination of plant based proteins and new medications to address obesity. Things like Impossible Meats, Beyond Meat burgers and the like. Burger King introduced the Impossible Whopper in 2019 to positive reviews. Indeed, as part of my research for this chapter, I visited my local Burger King and ate one; it was delicious. As good as premium burgers and, arguable, healthier. We regularly eat these at home though, truth be told, I prefer the Beyond Burger taste – an individual preference.

Plant based meats act and taste like premium beef and, with their increased scale and 2022 inflation, have become less expensive. This portends a positive trend.

Combine this movement from animal to plant based protein new obesity drugs like semaglutide, trade name Wegovy, manufactured by Nova Nordisk. A high quality study found that obese patients lost an average of 15% of their body weight over 68 weeks, making it twice as effective as older drugs. A similar new anti-obesity drug is Saxenda, also manufactured by Nova Nordisk.

This combination of plant based proteins and new anti-obesity medications could – emphasize ‘could’ – have a significant impact on our obesity rates. Stay tuned.

A second potential healthcare equivalent of cars is gene editing using CRISPR technologies. Full disclosure: as a non-scientist, I do not understand how DNA editing

works. But as an occasional medical news article reader, I have seen reports about sickle cell and leukemia patients being ***cured*** by DNA editing.[221] 'Cured' means there is no evidence that the disease exists in the patient, different from 'remission'. That's tremendously exciting. DNA editing research and trials are continuing in many directions. Again, stay tuned.

A third potential healthcare equivalent of cars is mRNA technology, or messenger RNA. Again as a non-scientist, I don't know how this works. But mRNA technologies are the basis of the Pfizer and Moderna anti-Covid vaccinations that apparently worked quite well. Messenger RNA instructs the body to make specific new proteins. Still early days but a promising and exciting technology.

And a fourth potential healthcare equivalent of cars is the movement to home based healthcare and away from hospital care. Wall Street is betting that this movement will success. Consider these purchase prices from home based healthcare companies in 2021:

- Kindred at Home purchased by Humana, 2021 with **$8.1 billion** market value
- LHC Group Inc, market cap **$5.5 billion** Sept 2021
- Encompass Health, market cap **$7.9 billion**, Sept 2021
- LHC Group, purchased by UHC, 3/22 for **$5.4 billion**

Compare those prices to publicly traded hospital company market values, also in 2021: Tenet Health, 65 hospitals, $8 billion market value; Universal Health, 211 hospitals, $12 billion.

Which, if any, of these potential healthcare equivalent of cars will succeed? I don't know. Maybe all, maybe none.

---

1 Alain Enthoven 'The History and Principles of Managed Competition' Health Affairs Supplement, 1993, page 27

2 ibid., page 29

3 Alain C. Enthoven and Laura A. Tollen, editors 'Toward a 21st Century Health System' Jossey-Bass, 2004, page xxix

4 David Dranove, The Economic Evolution of American Healthcare, Princeton University Press, 2000, page 40

5 ibid., page 39

6 Much of this analysis is based on Regina Herzlinger, Who Killed Healthcare, McGraw-Hill, 2007, pages 36 - 46

---

[221] Sickle Cell success – BBC report Feb 20, 2022 'Sickle Cell: 'The Revolutionary Gene Editing….' https://www.bbc.com/news/health-60348497, Leukemia cure, Boston Globe, 2/3/22 'Doctors: Cancer Patients Cured a Decade After Gene Therapy', Laura Ungar

7 ibid., page 43

8 ibid, pare 47. Next quote ibid, page 43

9 Much of this section comes from Jan Gregoire Coombs, 'The Rise and Fall of HMOs' University of Wisconsin Press, 2005, chapter 2

10 Gitterman, Weiner, Domino, McKethan and Enthoven, Rise and Fall of a Kaiser Permanente Expansion Region, Milbank Quarterly, Vol 81, No 4, 2003

11 Dranove, op cit. page viii. Much of this section is based on Chapter 3.

12 ibid. page 25

13 ibid. page 58

14 ibid. page x

15 CBO Testimony: Statement of Robert d. Reischauer, Deputy Director, Congressional Budget Office before the Subcommittee on Oversight, Committee on Ways and Means, US House of Representatives, June 27, 1979

16 Dranove, op. cit. pages 78 - 79

17 J. Wennberg, et. al. 'Are Hospital Services Rationed in New Haven or Over-Utilized in Boston?' Lancet 1 (1987): 1185-1188

18 See also Dartmouth Atlas of Healthcare, Jack Wennberg, ed (Chicago: American Publishing, 1996, 1999) which shows variation in a wide range of treatments diagnostic tests and drug therapies.

19 T. Wickizer et. al. 'Does Utilization Review Reduce Unnecessary Hospital Care and Contain Costs?' Medical Care 27 (1989): 632-47

20 V. G. Freeman et. al 'Lying for Patients: Physician Deception of Third Party Payers', Archives of Internal Medicine (1999): 2263 - 70

21 Sean Hennessy et. al 'Retrospective Drug Utilization Review, Prescribing Errors and Clinical Outcomes' Journal of the American Medical Association, Vol. 290, No. 11, September 17, 2003

22 Stephen Rosenberg, et. al. 'Effect of Utilization Review in a Fee-for-Service Health Insurance Plan' New England Journal of Medicine, Volume 333: 1326-31, November 16, 1995

23 Norman Kalant et.al. 'How Valid are Utilization Review Tools in Assessing Appropriate Care of Acute Care Beds' CMAJ June 27, 2000: 162(13)

24 Dranove, op cit., page 84

25 Herzlinger, Who Killed, page 48

26 Economist, July 15, 2004

27 Alain C. Enthoven 'The History and Principles of Managed Competition' Health Affairs Supplement, 1993; 'Why Managed Care Has Failed to Contain Health Costs' Health Affairs, Fall 1993. Quotes in this section come from these two articles unless otherwise indicated.

28 Much of this discussion comes from Seven A. Schroeder, 'The Clinton Healthcare Plan: Fundamental or Incremental Reform?' Annals of Internal Medicine, Nov 1, 1993, Volume 119, Issue 9, pages 945 - 947

29 Much of this discussion comes from Derek Bok, 'The Great Health Care Debate of 1993 – 1994' available at www.upenn.edu/pnc/ptbok/html

30 Stephen M Shortell and Julie Schmittdiel 'Prepaid Groups and Organized Delivery Systems: Promise, Performance, and Potential' in Enthoven and Tollen, editors, 'Toward a 21st Century Health System' John Wiley & Sons, 2004

31 Herzlinger, Who Killed, page 47. Next quote from same source, page 48

32 Enthoven and Tollen, eds., op cit. Preface, page xxxi

33 This section comes from Gitterman, Weiner, Domino, McKethan and Enthoven, Rise and Fall of a Kaiser Permanente Expansion Region, Milbank Quarterly, Vol 81, No 4, 2003

34 Regina Herzlinger 'Market Driven Healthcare' op cit. page 148

35 Enthoven and Tollen, op cit. page xxxi

36 Stephen M Shortell, op cit. page 14

37 Enthoven, History and Principles of Managed Compeition, page 34. Emphasis added.

37 Dranove, op cit. Introduction