Chapter 2
Insurance and Economics

If you want to understand the health care system, it's essential to understand insurance and economics—but being essential doesn't mean it's easy. We know these topics can be confusing and convoluted, as does anyone who's tried to purchase health insurance or understand why health care costs so dang much. So we've done our best to reduce the abstractions and confusion, because the secret is that the economics of health care is fascinating. Once you begin to understand it, you'll see how patients' and providers' behavior that seems to have nothing to do with money ends up affecting the bottom line and how the structure of the U.S. health care system influences that behavior.

Everything about health care discussed in Chapter 1 costs money, and money changes options, affects behavior, and produces problems. Insurance—the way we pay for care—and economics—the study of the production, distribution, and consumption of that care—help to piece together what the problems are, what causes them, and how to fix them.

Health Economics 101

Before throwing you into the health economics deep end, we want to give a little economics background for those not already familiar with it. So if you are familiar with it, feel free to skip this section. If not, here's your swimming lesson!

What Is Insurance and Why Have It?

Your auto insurance doesn't pay for tune-ups, but it will pay for your car if it's totaled in a wreck. Life involves a certain amount of luck, and accidental events often come with big price tags. Insurance, then, exists to defray the potentially devastating expenses you may or may not find yourself up against in life, vehicular or otherwise.

The logic behind insurance is two-fold. First, money should be set aside in small increments over time to spread out the potential cost of an unexpected large expense. Second, your money should be pooled with others' money to further spread out large costs. The benefit to insured individuals is that, as long as you make monthly payments, your accidents are covered—even if you get into a wreck after holding the policy for a week. The benefit to the insurance company is that it gets to keep your monthly payments if that wreck never happens. The benefit to society is that a few car crashes seem more trivial when the costs are spread out among thousands of people.

As a metaphor, though, comparing health insurance to auto insurance is an obvious over-simplification. As we said, health care is complicated! This metaphor ignores important differences between auto and health insurance. Most fundamentally, a car is not equivalent to a body. Having a crappy car is, in some sense, both a choice and not that big of a deal. On the other hand, having an injured or sick body may be due, at least in part, to genetics or how you were raised or the environment where you live. Further, even if your behavior may have played a role in substandard health, society's values make us wary of simply making people live with the severe consequences of illness and death. Our health is a much bigger deal than any car could ever be.

In all types of health insurance, the following parties exist: patients (or consumers, depending on your perspective), providers (physicians, nurses,
Economic Terms

INFORMATION ASYMMETRY

As a concept, this is as simple as it sounds: One side of a transaction has more information than the other side, which is usually the case for patients and providers, or patients and payors. Information asymmetry influences a wide swath of interactions in the health care system. It often involves situations in which one side wants the other side to act on its behalf. For example, the insurance company wants the policyholder to incur fewer costs (whether through good health or through forgoing medical services) so the company won't have to pay. Information asymmetry can cause moral hazard, adverse selection, and conflict of interest, all of which are explained below.

MORAL HAZARD

Let's say you fall in love with a house on the beach, but it happens to sit on a stretch of the coast known for getting beaten in hurricane after hurricane. "That's too bad," you think, "but I guess insurance would pay for it," and you buy it anyway. That's moral hazard: the trend toward more risky behavior when you know you won't end up having to cover the full cost.

Examples of moral hazard in medicine include smoking and neglecting to get regular check-ups because you know that large cost consequences down the line will be covered by insurance. Many think that moral hazard plays a big role in rising health care costs, and things like co-pays, co-insurance, and deductibles exist to reduce its effects by making patients pay for some portion of the care they receive.

ADVERSE SELECTION

Contrast a healthy 22-year-old who runs 20 miles a week with a 45-year-old diabetic who had a heart attack five years ago. Which one is more likely to desire health insurance?

Insurance exists to spread costs among even those who don't end up incurring them. The law mandates that those who have cars must get auto insurance, so it's easy to spread costs among the population, but the same hasn't historically been true with health insurance. Young, healthy people have low enough risk that they can eliminate costs entirely by not purchasing insurance. The risk-spreading purpose of insurance is thus compromised, as the total number of people paying premiums goes down while the number of people making claims stays the same. Thus, premiums grow unreasonably high for remaining policyholders. That's adverse selection. (This concept is a key reason for the individual mandate. See Chapter 5 for more information.)

BEHAVIORAL ECONOMICS

Humans are not perfectly rational beings. What's more, unlike in models of behavior used in classical economics, we aren't motivated solely by money. We make imperfect risk-benefit analyses, respond to the heat of the moment, and ignore evidence to the contrary of our beliefs and desires—so a person might end up gambling instead of saving for retirement, punching his best friend during a brief argument, and buying a gas guzzler despite high gas prices. Behavioral economics takes this irrationality into account as a combination of both economics and psychology—a study of how humans actually behave in the world. Researchers are now using behavioral economics to study thorny health issues like obesity and medication adherence.

Health Insurance Basics

An individual enrolled in a health insurance plan or policy is known as a beneficiary or member. The person who purchases the insurance is the subscriber, and any other people on the policy (spouse or children) are dependents. The insurance company charges the subscriber a monthly fee, called the premium. When a beneficiary receives health care services, the insurance company will pay the health care provider, clinic, or hospital on behalf of the beneficiary. However, the beneficiary is still required to pay for some of the cost that he or she incurs—this is known as cost sharing. Cost sharing comes in different flavors:

- The deductible is a fixed-dollar annual amount of health care costs that the beneficiary must pay entirely out of pocket. For example, if the deductible is $500, the first $500 in medical costs incurred
each year is paid by the beneficiary; for costs beyond $500, the insurance company may pay completely or require a co-payment or co-insurance.

- **Co-payment (or “co-pay”)** is a fixed-dollar amount that the beneficiary must pay for certain services. For example, the policy might say that the beneficiary pays $15 out of pocket for each primary care visit and $25 for each specialist visit, while the insurance company pays the rest of the bill.

- **Co-insurance** is similar to co-payment, but it’s a percentage of the bill rather than a fixed amount. For example, the beneficiary might pay 20% of the cost of a primary care visit and 25% of the cost of a specialist visit, and the insurance company pays the rest.

- The **out-of-pocket max** is the total amount that the beneficiary must pay in a given year. This includes what the beneficiary pays toward the deductible, any co-pays, or co-insurance. After that total amount has been reached, the insurer pays 100% of the costs for all covered services.

Legal regulation of health insurance is a bit messier. Some insurance plans, like self-insured employers and Medicare, are federally regulated. Others, such as plans bought individually, are governed primarily by state law. Insurance regulations vary significantly state by state, so while we’ll discuss the fundamentals of health insurance here, keep in mind that the specifics depend on the state where the beneficiary lives.

**Insurance**

**Coverage and Organization Formats**

**Indemnity** plans were both the simplest and the most popular type of insurance plans for most of the 20th century. The best known of these plans were those offered by Blue Cross/Blue Shield. In an indemnity (or “conventional”) plan, the beneficiary has a fixed amount of cost-sharing regardless of which physician or hospital he or she visits. Beneficiaries are responsible for paying premiums to the insurer and co-insurance (after the deductible has been reached) to the provider or facility, while the insurance company reimburses the provider or facility for the majority of the bill.

As health care spending skyrocketed throughout the 1980s, many insurance companies moved to a new model—the **Managed Care Organization (MCO)**—in an attempt to constrain costs. As the name implies, these insurers take a more active role in managing the care their beneficiaries receive (and thus the costs they incur), rather than focusing solely on premiums and reimbursements. Indemnity plans have little leverage to influence provider prices or what care their beneficiaries receive. Managed care plans stress the integration of insurance and medical care, especially by exerting more control over providers and patients regarding reimbursements and care utilization.

The original MCO is the **Health Management Organization (HMO)**, the most tightly integrated insurance plan. Beneficiaries of HMO plans can only receive covered care from physicians in the HMO “network.”5 In some plans, these physicians are directly employed by the HMO; in others, the physicians are still in private practice (page 8) or part of another sort of clinic or hospital-based group but sign contracts with the HMO, becoming “participating providers.” HMOs also emphasize primary care, usually requiring the member to get a referral from his or her PCP (primary care provider) for specialty services, a practice known as “gatekeeping.” Some hospitalizations and costly outpatient procedures will only be covered if the insurance company “pre-authorizes” them in advance.

The above paragraph introduces three much reviled practices: restricting provider choice, gatekeeping, and pre-authorization. Patients generally hate this stuff, but insurance companies do it because it keeps costs down. HMOs were successful in bringing down health care spending in the 1990s but faced a major backlash from patients, providers, and lawmakers who felt that the insurance companies had gone too far in restricting choice. Thousands of state laws were passed to regulate HMOs, which reduced some of their power to restrain utilization and spending. Nationwide, the number of individuals enrolled in HMOs has decreased significantly in the past 15 years.

**Preferred Provider Organizations (PPOs)** negotiate contracts with physicians, who form the plan’s network. These physicians agree to charge discounted rates to the plan’s beneficiaries in exchange for the increased

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5 Patients can still visit providers, clinics, or hospitals that aren’t in the HMO network, but must pay the bill out-of-pocket.
flow of patients from participating in the network. Beneficiaries can receive care from providers who aren’t in the network, but when the services are obtained out-of-network, the beneficiary has a higher deductible and has higher co-insurance and co-payments to make. The insurer’s goal is to create incentives to keep the beneficiary using in-network providers. PPOs place less emphasis on coordination of care and don’t employ gatekeeping or capitation. Without gatekeeping, and with the ability of members to receive covered care out-of-network, PPOs offer beneficiaries more choices, but the insurers don’t have as much power as HMOs to constrain spending.

The final MCO plan is the Point of Service (POS), which combines features of HMOs and PPOs. POS plans were very popular in the 1990s but have largely been supplanted by PPOs, because requirements for authorization before seeing a specialist have proven to be highly unpopular.

Consumer-Driven Health Plans are a relatively new type of coverage that give beneficiaries more choice and control over their health care spending. Think of these as tax-free bank accounts that can only be used for medical expenses (non-medical withdrawals incur penalties). They come in several formats—health savings accounts (HSA), flexible spending accounts (FSA), and health reimbursement accounts (HRA). HSAs were first developed in 2003 as a way for individuals to opt out of traditional insurance. Patients who use these are partially saving for their own health needs rather than just paying insurers monthly; however, those who enroll in an HSA must also enroll in an insurance plan with high deductibles (between $1,250–$6,250 for individuals and $2,500–$12,500 for families). HSAs are of primary benefit to patients who are young, healthy, and expect a steady source of income, and the plans allow members of this population to lower their spending to match their low risk.

**Premiums—How Are They Set?**

In any insurance company, over the course of time, expenses will equal the amount of care the company has to pay for plus administrative costs. To stay solvent, the amount the company takes in from monthly premiums needs to equal these expenses.

Obviously, though, not all people who purchase insurance will cost the company the same amount. In America, the sickest 5% of the population accounts for 50% of total health care spending, while the healthiest half of the population only accounts for 3% of health care spending. Historically, insurance companies could take these discrepancies into account when setting premiums. Individual customers were subject to “medical underwriting,” or the practice of estimating how much medical care an individual is likely to need and charging a rate based on that (so the sicker you are, the higher premium you pay). Contrast this practice with the practice used for insurance you get through your employer: Every employee pays the same amount, regardless of their medical history; this is called a “community rating.” In community rating, the premium cost is calculated by dividing the total expenses by the number of beneficiaries.

The Affordable Care Act changes medical underwriting to make it more like community rating. As of 2014, insurance companies no longer can take past medical history into account for medical underwriting; they can only adjust rates based on:

- Age
- Geographic location
- Family composition (i.e., number of children)
- Tobacco use

See Chapter 5 for much more information on new insurance rating rules.
AND JUST WHAT ARE YOUR PREMIUMS PAYING FOR?

Your premiums are paying for two things:
1. Benefit pay-out (yours and others)
2. Running the insurance company

There is a trade-off between premiums and benefits; generally, the more you pay monthly, the better benefits you get. That's one thing you are paying for: lower co-pays, lower deductible, better coverage. But your premium dollars aren't earmarked just for you. They go into a pool to pay out all benefit coverage; thus, your premiums go up as the pool of other insured folks gets more expensive.

And, as with any business, your premiums must cover the cost of running the company, i.e., overhead. In health insurance, there is a term for this: the medical loss ratio (MLR). The MLR is the percentage of insurance premiums that the insurance company spends on clinical services and activities to improve quality.\(^3\) Put in plain English, this is the percentage of your insurance premium that actually pays for health care. The rest of the revenue pays for administrative costs, marketing, salaries, overhead, and company profits. For understandable reasons, insurance companies do consider paying for health care to be a loss.

As of 2009, the MLR for the five largest for-profit insurance companies was in the 70% range for individuals and in the 80% range for small and large groups.\(^4\) The Affordable Care Act now requires insurers to keep MLR at 85% for large group insurers and 80% for small group insurers.

Ways to Get Insurance

THROUGH EMPLOYMENT

The current relationship between health insurance and employment arose during World War II after the federal government enacted a freeze on wage increases in private industry. In response, employers improved their non-wage benefits, including health insurance, for employees and their families. This arrangement of employer-sponsored insurance (ESI) spread even more rapidly when the IRS ruled that employer payments for insurance weren't taxable.\(^5\) ESI has since become the predominant method of obtaining insurance in the U.S.; in 2012, 55% of all insured non-elderly Americans had ESI\(^6\) (down from 70% in 2009), either through their own employer or through a family member.

ESI comes in one of two types, depending on who is assuming the risk for the health care expenses of the covered employees and their families.

**Fully Insured**: The employer buys insurance from a private insurance company for its employees. In this arrangement, the insurance company is the payor and takes the risk for future medical costs for the beneficiaries. The employer usually works with a broker to price different insurance options—different kinds of plans and from different insurers—and the employee can select from one of these employer-approved plans.

Most plans will also cover spouse and dependents for an increased price, though they are not required to. Premiums are otherwise the same for each employee.\(^b\) The employer contributes 50–90% of the monthly premium, and

\(^b\) ESI premiums may (depending on state law) be adjusted by the insurer to account for the claims history of the employer, so an employer with a track record of employees who need lots of medical care may have to pay a higher premium. Thus, insurance for employees of mining companies is usually more expensive than those of a health food store.
the employee pays the rest. Employees see reduced wages, as employers must pay less in wages to maintain this benefit; however, neither employees nor employers have to pay income tax on benefits. Thus, though employees have reduced wages, they receive a larger total compensation package.

**Self-Insured:** If large enough, the employer will often choose to act as the payor and assume the risk of future medical expenses for its own employees. A private insurance company is contracted only to handle the plan’s day-to-day administration. The employer also usually purchases what’s called “stop loss insurance” from a private insurer, which protects the employer from unexpectedly high costs from employees’ medical care. Employees are still required to contribute monthly fees for the cost of their insurance coverage, but the payments go primarily to the employer rather than to the insurance company. Employee enrollment in self-insured plans has continued to rise even as enrollment in ESI in general has fallen.²⁸

**Pros and Cons of ESI**

**From the employee’s standpoint,** ESI provides both advantages and disadvantages. The advantages are reduced premiums (due to both the contribution of the employer as well as the economy of scale), and reduced income taxes. The disadvantages are that it reduces your salary and may constrict choice (since you can only choose an insurance plan that’s been selected by your employer).²⁵

**From the insurance company’s standpoint,** ESI reduces both the need for marketing and adverse selection. A group of employees is likely to be both large (meaning a dependable stream of revenue as long as they maintain a relationship with the employer) and relatively healthy (meaning they won’t require as much pay-out on their premiums). While employers do have the clout to reduce premiums from what individual consumers pay, this is still a profitable trade-off for the insurers.

**From the employer’s standpoint,** the advantages of ESI increase with the size of the business. For a large business, the economy of scale means they have to pay less, as a percentage of payroll, to provide the benefit. The opposite is true for small employers. You can see this reflected in the number of large companies (>200 workers) vs. small companies (<200 workers) who, pre-2014, provided health insurance: 99% vs. 57%.³ Sixteen percent of large companies have self-insured health plans.³⁷ No matter the employer’s size, benefits get increasingly difficult to provide as health costs rise faster than wages. Between 1999 and 2010, health premiums rose by 138%, and wages rose 42%.³⁷ As a result, before the Affordable Care Act, ESI had been on the decline: From 2001 to 2005, the number of employers providing health insurance decreased from 84% to 80%;³⁸ and, from 2000 to 2011, the number of working-aged adults receiving ESI decreased from 69% to 58%.³⁷ Of course, that trend is disrupted by the Affordable Care Act, which includes an “employer mandate” for businesses employing 50+ people to provide insurance. See Chapter 5 for more information.

**From society’s standpoint,** ESI is beneficial in that it can insure a large number of citizens without the government directly insuring them. It’s problematic, though, because of the ESI tax subsidy (workers pay taxes only on their wages, not their benefits). Since ESI is paid with pre-tax dollars, that means that (a) society misses out on those taxes (about $250 billion each year!³⁹)

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³ Historically, ESI has represented another HUGE advantage to employees: You were guaranteed coverage even with a pre-existing condition (on the flip side, that made employees dependent on their jobs and reluctant to switch if it meant losing insurance). However, after 2014, the Affordable Care Act makes it illegal to use pre-existing conditions to deny coverage, so all Americans will enjoy this benefit, regardless of ESI.

³⁵ Compared to a similar-sized group of unemployed individuals.
and (b) those with ESI get more bang for their buck, which is unfair to those who purchase insurance outside of employment. Thus, the ESI tax subsidy is an important focus of policy reformers. See Chapter 5 for more information.

PUBLIC INSURANCE PROGRAMS

Thirty-one percent of Americans receive health insurance through one of the following government programs: Medicare, Medicaid, Children’s Health Insurance Program (CHIP), Tricare (for active duty military), or the Veterans Health Administration (for veterans). Let’s go through these programs.

Medicare
Medicare is a federal program established in 1965 to insure the elderly and some disabled individuals. It is the largest insurer in the nation—meaning the policies Medicare sets have an enormous impact on how health care is run in general.

- **Eligibility**
  The primary purpose of Medicare is to cover the elderly, though it has been slightly expanded over the years. To be eligible for coverage, a person must:
  - Be at least 65 years old, have been a U.S. citizen or permanent resident for more than five years, and have (or have a spouse who has) paid Medicare taxes for at least 10 years;
  - Be under age 65, be permanently disabled, and have received Social Security disability benefits for at least the previous two years;
  - Be under age 65 and receive Social Security disability benefits for amyotrophic lateral sclerosis (ALS or Lou Gehrig’s disease);
  - Be under age 65 and need continuous dialysis or a kidney transplant; or
  - Be under age 65 and have developed health conditions following environmental hazard exposure in an emergency declaration area after June 17, 2009.

- **Coverage**
  Medicare has four parts:
  - **Part A:** Inpatient insurance, covering stays in hospitals and nursing homes, home health visits, and hospice. These benefits, however, have a limit on the number of days they will pay for in a facility, and they are subject to co-pays and deductibles.
  - **Part B:** Outpatient insurance, including coverage for physician services, preventive services, and home health visits. These benefits are also subject to co-pays and deductibles.
  - **Part C:** Also called Medicare Advantage, it allows beneficiaries to enroll in a private insurance plan (like an outside HMO), which will cover all regular Medicare benefits and may cover more or require reduced co-pays and deductibles. Medicare pays these private insurers a fixed amount per month, per beneficiary. About 30% of Medicare beneficiaries are enrolled in a Medicare Advantage plan.
  - **Part D:** Added in 2005, this is a prescription drug benefit. Part D is voluntary and operates through contracted private insurers. The program is subsidized, particularly for low-income beneficiaries. Previously there existed a “donut hole,” causing certain beneficiaries to lose coverage of most of their prescriptions, but the Affordable Care Act “closes” the gap through subsidies and rebates. See Chapter 5 for more information.

- **Supplemental Insurance**
  Medicare requires somewhat high co-pays and deductibles, doesn’t have a limit on out-of-pocket costs, and doesn’t pay for long-term care (e.g., a permanent nursing home), eye services, or dental services. Thus, many beneficiaries want additional insurance to reduce their out-of-pocket expenses. Options include:
  - Employer-sponsored retirement benefits
  - Medigap: Voluntary insurance offered by private insurers to cover services not included in Medicare Parts A and B (You can’t have this with Medicare Advantage.)
  - Medicaid

- **Funding**
  Medicare is funded through the federal (not state) government through general revenues and payroll taxes. Of note, beneficiaries only contribute 13% of the funding through their premiums. Since 1965, costs have far exceeded what beneficiaries have contributed in taxes. For instance, a single man turning 65 in 2010 will receive an average of $180,000 in lifetime Medicare benefits, after contributing $61,000 in lifetime Medicare taxes.
Medicaid

Medicaid is a joint federal–state program established in 1965 to insure the poor. Eligibility and reimbursement policies vary by state, unlike Medicare.

- **Eligibility**
  
  These criteria are a little more complicated than those for Medicare. To be eligible, a person must belong to one of the following “categorically eligible” groups:
  
  - Parents with dependent children
  - Pregnant women
  - People with severe disabilities
  - Seniors (meaning that many Medicaid recipients are “dual eligibles”; that is, they receive both Medicare and Medicaid)
  - Children

  States must cover citizens in these groups who have incomes below thresholds based on the federal poverty level (FPL), and there are no enrollment limits—if a state happens to have an unusually high number of residents who fit in these groups, the state must cover them all. States have always had the authority to allow eligibility at higher incomes, and many did, such as Massachusetts.

  To make things even more complicated, the ACA mandated a large expansion of Medicaid by declaring that any citizen with an income of 138% or less of the FPL could be enrolled. However, the Supreme Court struck down this part of the law, leaving Medicaid expansion up to individual states. See Chapter 5 for more information on this process—because it has significant and wide-ranging effects. Here we will just say that many states chose not to expand Medicaid and will maintain their prior eligibility criteria, which will lead to big differences in Medicaid coverage and the number of beneficiaries by state.

- **Coverage**

  Medicaid programs are required to offer minimum benefits, though some states choose to offer more. Required coverage includes:
  
  - Inpatient and outpatient hospital services
  - Physician, midwife, and nurse practitioner services
  - Laboratory and X-ray services
  - Nursing facility services and home health care for individuals age 21 or older
  
  - Early and periodic screening, diagnosis, and treatment for children under age 21
  - Family planning services and supplies
  - Rural health clinic and federally qualified health center services

- **Funding**

  Unlike Medicare, which is entirely federally funded, Medicaid is funded by both the federal and state governments.

CHIP

CHIP (sometimes referred to as S-CHIP, for State Children’s Insurance Program) is a joint federal–state program established in 1997 to insure low-income children.

- **Eligibility**

  Low-income children are often covered by Medicaid. At a minimum, Medicaid requires coverage of children up to age six with family incomes less than 138% FPL and up to age 18 with family incomes of or less than 100% FPL. (States may choose to cover children at higher family incomes.)

  CHIP’s purpose is to expand insurance to children who aren’t eligible for Medicaid coverage. However, there are no hard-and-fast rules for eligibility; states have broad authority to set their own rules. As of June 2013, Medicaid covered about 28 million children in the nation, CHIP covered 5.7 million, and seven million children were uninsured.

- **Coverage**

  Coverage varies by state, and benefits are similar to those under Medicaid. States are allowed to limit coverage below the thresholds for Medicaid, and, further, they may require premiums and deductibles on a sliding scale based on family income level.

- **Funding**

  CHIP is funded by both the federal and state governments, but federal money makes up a larger percentage of the total funding than it does with Medicaid.

Other Government Insurance

The federal government also insures and delivers care to active duty and retired military personnel:

- **Veterans Health Administration**: A component of the U.S. Department of Veterans Affairs (VA) that provides medical care to veterans and their families at low or no cost. The VA operates numerous outpatient clinics,
hospitals, and long-term health care facilities.

**TRICARE:** A Department of Defense program that provides care to the dependents of active-duty military members and to military retirees and their dependents.

**INDIVIDUALLY, ON THE MARKET**

Millions of Americans can't obtain insurance through their employers or the government—think of the unemployed, self-employed, early retirees, and those working for companies that don't offer ESI—and must turn to the individual market for coverage. The cost of insurance in this market has almost always been more expensive (for various reasons, but clearly one of those is that there is no employer to defray the cost). Historically, it's been nearly impossible to get insurance through the individual market if you had any pre-existing conditions. So not only was it hard to find coverage in the first place—that coverage was often prohibitively expensive. No wonder few people have been covered by the individual market.

The Affordable Care Act changes this equation by (a) organizing individual insurance through the Marketplaces, (b) disallowing pre-existing conditions as a reason either to deny coverage or to raise premiums, and (c) offering subsidies to purchase insurance through the Exchanges for those making 400% or less of the Federal Poverty Level. The goal is to make the individual market more affordable and easier to navigate. See Chapter 5 for more information. (There's a lot of it!)

**NO INSURANCE**

We would be remiss in discussing the ways people get insurance if we didn’t also talk about those who don’t get insurance. As of 2010, when the Affordable Care Act passed, the uninsured numbered 47 million, which is more than 15% of the U.S. population. Obviously, one of the big selling points of the Affordable Care Act is that it reduces the number of uninsured. Still, projections post-2014 estimate that 31 million will still be uninsured. These numbers will be higher in states that are choosing not to expand Medicaid. (See Chapter 5 for more about these issues.)

One other category you’ll need to know about is the “underinsured”—individuals who do have some health insurance coverage, but not enough to adequately cover their medical expenses; for instance, prescription drugs might not be covered. Calculating the total number of underinsured Americans isn’t easy, but one well-accepted 2007 study pegged it at 25 million, a 60% increase since 2003.

**Reimbursement Types**

Insurers negotiate contracts with individual health care facilities as well as with providers. These contracts may include any of the following reimbursement systems, or even multiple ones (e.g., different rates for outpatient vs. inpatient services).

**Payment Models**

Each of these forms of reimbursement generates a set fee.

**For the physician**

- Based on services rendered: Fee-for-Service (FFS)
- Based on another criteria, regardless of services rendered:
  - Per diagnosis: Bundled payments for an “Episode of Illness”
  - Per patient: Capitation
  - Per year: Salary

**For the hospital**

- Based on services rendered: FFS
- Based on another criteria, regardless of services rendered:
  - Per day: Per Diem
  - Per diagnosis: Bundled payments for an “Episode of Illness”
  - Per patient: Capitation
  - Per year: Global budget

As you might imagine, each reimbursement system has pros and cons, and each creates incentives and influences provider behavior, even if only unconsciously. For instance, if you’re getting paid FFS, then you have an incentive to increase the number of services you provide, or to focus on the types of services that get paid the most. (In addition, you’re paid by how much you do, not how well you did it or if you helped the patient.) If you are getting paid per diagnosis or by capitation, you have an incentive to reduce the number of services you provide, since you make more profit the less you spend.
Historically, physicians were paid mostly FFS, but there was—and continues to be—a lot of heated debate. Physicians are mixed on the matter; they often complain about an abdominal MRI scan getting reimbursed $500 whereas doing a physical exam and talking to a patient for half an hour (that is, the art of medicine) might get reimbursed $75. Many pilot programs are testing new payment models, but FFS is still the dominant model at this time.

As stated above, any type of reimbursement has pros and cons and will influence behavior—and thus health outcomes. No system can be perfect, so the question is how to design a system of payment that produces the best health outcomes. Typically, the discussion focuses on paying for value, but it is incredibly difficult to define value in health care, and it’s tricky to think of what measure denotes value. For instance, if you pay more to physicians who keep their patients out of the hospital, physicians may avoid the sickest patients who are most likely to be hospitalized.

### PAY FOR PERFORMANCE AND VALUE-BASED PURCHASING

One more payment system you should know about is Pay For Performance (P4P). P4P has become increasingly popular over the past 10 years as a method of simultaneous quality improvement and cost control. (The term of interest is “value,” which takes into account both quality and cost.) P4P is not one single form of reimbursement, and there’s a lot of variation among P4P systems in the specific measures used, and how those measures are converted to dollars. Yet all types of P4P plans reimburse based on measures of clinical quality, safety, efficiency, and patient satisfaction; the idea is to incentivize value rather than volume.  

P4P is often combined with other reimbursement systems; for example, a single provider might receive 70% of his or her compensation via fee-for-service and 30% from his or her performance on quality measures (e.g., percentage of female patients receiving mammograms), and patient satisfaction.

P4P plays a role in the Affordable Care Act through Value-Based Purchasing (VBP) for hospitals and providers. VBP involves both a quality reporting system and a payment modifier, penalizing those providing below-average care and providing bonuses to those providing above-average care. There are two types of VBP:

- **The Hospital VBP** program began in 2012. The Hospital Inpatient Quality Reporting program includes information from 3,500 hospitals. Then hospitals are scored on three measures—how closely hospitals adhered to clinical guidelines for certain diagnoses, how patients scored the care they received, and mortality rates for certain diagnoses. Then, depending on their score, Medicare applies an adjustment factor. Hospitals may lose or gain 1% of payments (which will increase to 2% by 2017).

- **The Physician Feedback/Value-Based Payment Modifier** program began rolling out in 2013 and applies to all Medicare providers as of 2017. Previously, only one-third of physicians engaged with the Physician Quality Reporting System; however, the new program requires reporting by all 600,000 providers who bill Medicare. As with the Hospital VBP, providers stand to gain or lose 1% of their payments (increasing to 2% as of 2017). Note, however, that critics fear that the current scoring system is overly focused on primary care and that more evidence is necessary to understand what types of incentives will work with providers.

Of course, it’s not so easy. There are strong criticisms of P4P in general and VBP in particular. One criticism is that it is notoriously difficult to measure quality, and VBP has not solved this issue. Further, measuring outcomes without adjusting for context could end up penalizing hospitals that serve poorer, sicker populations—i.e., the hospitals that need resources the most. VBP in particular may complicate matters by “layering” on top of a flawed fee-for-service reimbursement structure. And, in fact, current research shows “modest or inconsistent effectiveness” in attempts by P4P to increase quality. Thus, some worry that P4P means Medicare will effectively be paying for cheaper care without safeguarding quality.

While P4P and VBP are the trend and may ultimately be effective, there are many kinks—in measurement, in designing effective incentives—to be worked out along the way.

### How Fees Are Determined

We’ve gone over some models of payment, which pay a set fee for certain criteria. Now let’s look at how those fees get set in the first place, using Medicare fees as an example.
DIAGNOSIS-RELATED GROUP (DRG)

For inpatient care, Medicare pays a flat rate based on the patient’s diagnosis. DRGs were instituted by Medicare in the early 1980s as a way to reduce costs—they were revolutionary: DRGs shifted reimbursement from retrospective to prospective payment, and, as the Department of Health & Human Services puts it, “in this DRG prospective payment system, Medicare pays hospitals a flat rate per case for inpatient hospital care so that efficient hospitals are rewarded for their efficiency and inefficient hospitals have an incentive to become more efficient.” The DRG payment system has had a huge influence on providers and hospitals, including a significant reduction in average hospital length of stay for patients.

RELATIVE VALUE UNIT

The corresponding system for physicians is known as the relative value unit (RVU). This is a point system that Medicare uses to set reimbursement rates for medical diagnoses, treatments, and procedures under a fee-for-service payment system. Each action a physician undertakes is rated on three factors:

- Work of the physician (about 50%)
- Expense to the practice (about 45%)
- Cost of malpractice insurance (about 5%)\(^g\)

For example, a diagnostic colonoscopy is worth about 6 RVUs, while surgically removing part of the colon is nearly 40 RVUs.\(^h\) The RVU value is multiplied by a conversion factor to determine the amount of money the physician receives for the service.

Remember, while DRGs and RVUs determine payment for services, they have no control over what types of services are offered, nor how often.

AMA/Specialty Society
Relative Value Scale Update Committee (RUC)

Since the early 1990s, the American Medical Association (a professional organization and lobbying group) has operated the RUC, the committee that sets RVUs. The committee comprises 31 physicians, 21 of whom are nominated by specialty societies, representing the array of specialties. The committee polls hundreds of physicians to determine the “time and intensity” required for physicians’ work. Once the committee determines RVUs (of which there are thousands), Medicare may choose to adopt the recommendations; in practice, the committee’s recommendations are almost always adopted. Medicare then independently sets the price paid per RVU by applying a “conversion factor.” For instance, the conversion factor has previously been used to keep reimbursements the same even when RVUs rose.

While RVUs are set for Medicare alone, other insurers use them as well, though they, too, can set whatever price they want per point. As such, the RUC holds quite a bit of power over reimbursement rates for physicians, making it controversial. Here are some of the arguments both critics and supporters make:

<table>
<thead>
<tr>
<th>Critics</th>
<th>Supporters</th>
</tr>
</thead>
<tbody>
<tr>
<td>The RUC over-represents specialties; only five committee members represent primary care. The committee then overvalues specialty procedures, skewing salaries to the detriment of primary care.</td>
<td>The RUC does support primary care, notably by recommending RVUs for services some primary care physicians provided free of charge. Such support has been undermined by Medicare itself, as well as private payors.</td>
</tr>
<tr>
<td>It makes no sense for physicians to set their own reimbursement rates.</td>
<td>Physicians can provide the best information about how to value their work. In addition, the RUC makes recommendations rather than law.</td>
</tr>
<tr>
<td>The RUC is too secretive, since those who attend the meetings must sign non-disclosure agreements.</td>
<td>The committee allows members of the public to attend; non-disclosure agreements are to prevent market speculation. In addition, the committee recently voted to publish the dates and times of their meetings, as well as the minutes.</td>
</tr>
</tbody>
</table>
MEDICARE SUSTAINABLE GROWTH RATE

The Medicare Sustainable Growth Rate (SGR) is a method for determining physician reimbursement, in use since 1997. The idea behind the SGR is to make sure that physician payments don't rise faster than the economy in general. The SGR is determined by:

- Change in physician fees
- Change in number of Medicare beneficiaries in the fee-for-service program
- Change in GDP
- Change in expenditures due to new laws and regulations

Health care costs, though, have been rising much faster than GDP, meaning that each year, the SGR should require physician payments to be cut—instead, each year since 1997, Congress has voted to override the SGR and not adjust physician payments. This is called the “doc fix.” If, some year, Congress decides not to override the scheduled cuts, then all prior cuts will come into effect. For instance, in 2013, physician payments would have been cut by 26.5%. You can imagine how that would have gone over.

Obviously, sidestepping the law every year isn’t the best long-term solution. The SGR is pretty unpopular on all sides, and the goal is to create a “permanent doc fix,” which will rein in physician payments without the SGR. The various political and professional groups have so far been unable to agree on a replacement plan. (Quite shocking, we know.)

Now that we’ve looked at what insurance is and how it’s administered, let’s look at how much U.S. health care costs and then move to the REALLY big question... why does it cost so much?

How Much Does U.S. Health Care Cost?

In 2012, national health expenditures reached $2.8 trillion, which is $8,915 per person and 17.2% of the nation’s gross domestic product (GDP), far more than any other developed country. CMS expects spending to grow by around 6% per year, reaching 19.9% of GDP by 2022. Per capita spending varies widely by state, from $5,031 in Utah to $9,278 in Massachusetts. (For more on regional variation, see Chapter 5.)

Where Health Care Dollars Come From...

- 33% Private Health Insurance
- 16% Medicaid
- 8% Other Third Party Payers and Programs
- 4% Other Gov. Insurance
- Medicare
- Out of Pocket
- Investment
- Public Health Activity
- Nursing Homes and Long-Term Care
- Government Administration and the Net Cost of Health Insurance
- Public Health Activities
- Hospital Care
- Prescription Drugs
- Physicians and Clinics
- Dental Care
- Investment (including non-commercial research)
- Other

... and Where They Go To

Centers for Medicare & Medicaid Services, “Nation’s Health Dollar—Where It Came From, Where It Went,” Jan. 2014. Note: Sum of pieces may not equal 100% due to rounding.
An Important Disclaimer: Cost Does Not Equal Price

In health care, the relationship between price (the ability to charge a certain amount for a product) and cost (how much it costs you to produce it) is rarely clear. As the Robert Wood Johnson Foundation puts it, “Little is known about how prices are derived. The answer to the basic question of what health care costs often is unknown. Payers see a bill, but generally are given very little detail about how prices in that bill are determined.” To underscore this point, we can look at the fact that different payors pay different amounts for the same services. Keep this in mind when reading about health care costs, prices, charges, and expenditures. Are we talking about the cost or the price? How would the difference matter in that situation?

Distribution of Spending

Distribution of Health Expenditures for the U.S. Population


When analyzing the cost of U.S. health care, it’s important to remember that spending is not spread evenly among all patients. According to the Agency for Healthcare Research and Quality, in 2009, 21.8% of health care spending came from just 1% of patients. That’s roughly three million people in the U.S. who each spent about $90,000 in a year on health-related expenses. Further, the AHRQ states, “[T]he top decile of spenders were more likely to be in fair or poor health, elderly, female, non-Hispanic whites and those with public-only coverage. Those who remained in the bottom half of spenders were more likely to in excellent health, children and young adults, men, Hispanics, and the uninsured.”

The fact that so many resources go to so few patients led to the term “super-utilizers.” Increasingly, policy efforts focus on how to reduce costs among this group.

Health Spending Slowdown

Health care spending has become a bigger and bigger portion of the GDP, rapidly approaching an unsustainable level. Health care spending grew faster than the economy for many years, and that growth hurt. As Jonathan Cohn puts it, “when national health care spending rises much more quickly than the economy is growing, you feel the impact—as relatively higher insurance premiums, higher out-of-pocket costs, and higher taxes to support government insurance programs.” For several years, though, the rate at which health spending outpaced the economy has been slowing. That is, overall spending was still growing; it just wasn’t accelerating as fast as it was before.

Annual Growth Rates for Health Spending and GDP

Why the slowdown? The Congressional Budget Office (CBO) suggests that Medicare and Medicaid spending slowed in such a breadth of programs that it must be attributed to many factors and that it must include a change in “the behavior of beneficiaries and providers.” The big question was whether the causes were temporary (like the recession) or lasting (that is, structural changes that would slow spending growth for the long-term).

The CBO predicted that the slowdown would continue even as the Affordable Care Act was implemented, but others thought the ACA would contribute to higher spending because of increased utilization. As of publication, it was looking like the naysayers might have been right, as spending accelerated again to 6.7%, the highest it had been since the slowdown began in 2007.

Does this mean that the slowdown is over, and that costs will rise precipitously again? Not necessarily. But this is certainly an issue to watch.

Why Does U.S. Health Care Cost So Much?

This question has a lot of answers. We’ve broken the reasons into two categories:

1. Reasons arising from the health care system itself
2. Reasons arising from the nature of disease and of society

After considering those reasons, we will discuss the consequences of high costs and why health care does not function like a “normal” market.

The System Itself

Insurance as Insulation

Insurance is designed to protect against large, unexpected costs. However, when this protection is too great, or when it covers even relatively small, predictable costs, insurance becomes “insulation,” something that protects consumers from the full brunt of the very large cost of health care. Only a tenth of health care spending is currently out-of-pocket, down from nearly 50% in 1960. Many economists claim insulation from prices leads to increased health care spending because people tend to be more cavalier with money when they know they won’t be paying the bill—i.e., no one washes a rental car. In addition, health insurance has evolved over time to be considered a right rather than a privilege. When discussing health insurance, it’s never simply an economic matter; it also involves values.

Lack of Transparency

For Medicare and other insurers, total health care costs are at least slightly transparent—since they have to reimburse these costs—and they’re able to take cost into account when deciding what treatments to cover. No such transparency exists for individual patients, though. Individuals are often asked to account for costs in their medical decision-making; however, many barriers stand in their way:

- Hospitals and physicians don’t provide up-front information about prices and billing.
- Patients haven’t had access to national data or average costs at individual hospitals.
- Even if patients could access the above data, they would need to compare costs at all regional hospitals and be willing to switch hospitals even if they are in critical condition.
- Patients have no way of knowing whether their own care would be comparable. (Their illness may be more severe, they may have more or fewer co-morbidities, their care may have more or fewer complications, etc.).
- Patients usually don’t understand how medical billing works.
- Patients usually don’t have time to hassle with billing forms and learn about coverage rules.
- Patients lack the clinical knowledge in comparing the added value of a more expensive treatment.

The fact is not just that medical costs aren’t transparent—it’s also that costs can never be fully transparent. Patients have no idea what their care is going to end up costing, and thus their ability to make cost-based decisions is inherently compromised.

Lack of Standardization

The more diversity that exists in payment forms, systems, rules, and payors themselves, the more work time must be devoted to billing. This billing workforce cost has played a role in the decreasing ability of physicians to

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1. Unfortunately, it’s not simply “Because the health care system is so good”—see the Introduction for more.

2. There is now some ability to compare costs here: www.CONFIGURATORCOM
maintain private practices. Each health care facility must pay for its own
dedicated billing department or pay to outsource it (unlike, say, in England,
where billing is a centralized organization). Further, each billing depart-
ment must master different forms and reimbursement rules for each of
many different insurers and plans.

In fact, in 2011, research found that “US nursing staff, including medical
assistants, spent 20.6 hours per physician per week interacting with health
plans,” costing $82,975 per physician annually.50

And this is just looking at billing! You can just imagine the other ways in
which a similar lack of standardization in other departments increases costs.

**LACK OF COORDINATION**

The U.S. system is decentralized and complicated, with many different orga-
nizations providing different aspects of care. Only rarely are these connected
to one another, and a patient may end up receiving care from multiple or-
ganizations without their working to coordinate her or his care. For instance, a
patient getting discharged from X hospital may then need home health help
from Y home aides, as well as follow-up appointments with Z primary care
office. Those transitions provide a lot of opportunities for things to fall through
the cracks, so it shouldn’t come as a surprise that following hospital discharge
nearly half of hospitalized patients experience at least one medical error in
medication continuity, diagnostic workup, or test follow-up.51

Many of these errors lead to hospital readmissions (and an estimated
$12 billion in preventable spending52), which has been a major focus of
reform efforts. The government cannot force different organizations, like
X, Y, and Z above, to coordinate their care, but it can penalize hospitals for
readmissions—in fact, this is an important part of the Affordable Care Act
(see Chapter 1 for more information). The idea is that, if we can incentivize
coordination, then we can reduce wasteful spending (while providing a
better quality of care).

**OVERTREATMENT**

Overtreatment occurs when patients receive treatments or procedures that
aren’t medically necessary. As you might imagine, this raises costs. In 2009,
Atul Gawande popularized this issue in a much-discussed article in The
New Yorker.53 The idea behind overtreatment is just that: Providers may
order—and patients may demand—more expensive tests and procedures
than are necessary, and they may diagnose and treat diseases that either
aren’t there or don’t really need treatment, per se.

Since newer, more complex tests, procedures, and drugs are expensive,
and since health care dollars are limited, it’s legitimate to ask how much
quality improvement is worth how much cost. Might you, as a patient who
suspects abdominal obstruction, be willing to have a $300 X-ray instead of
an $1,800 CT scan if the CT scan is only 3% more sensitive? Most patients
wouldn’t know what the range of diagnoses might be or how to evaluate
such a calculation.

They might be likely to either:

- Reflexively go with the cheaper one (if paying out-of-pocket) or
- Reflexively go with the most state-of-the-art (if insured).
Physicians, who know both the range of diagnoses as well as the benefits of different diagnostics, may be best suited to make the decision, but they, too:

- May not be up-to-date on evidence or
- May reflexively go with the state-of-the-art imaging if they know their patient is insured.

Policymakers could set a particular cost–benefit calculation for these decisions (as England does), but this may fail to account for outliers (those whose bodies and experiences don’t fit the average) and patient choice.

Another difficult issue with overtreatment is physician conflict of interest. Let’s say you’re a gastroenterologist in a private practice. Because you send so many patients for CT scans, you decide that it would be more efficient to buy a scanner yourself for the office. This may be more convenient for both you and the patient, but it also means that you are now the person who both decides when a patient uses the CT and the person who benefits monetarily when they do. Even if you have nothing but the best intentions, this is an obvious conflict of interest.¹

In an effort to counteract overtreatment by reducing the use of “low value” services, the American Board of Internal Medicine started the Choosing Wisely Campaign in 2012. Choosing Wisely publishes lists of “Five Things Patients and Physicians Should Question” in more than 40 specialties, aiming to “spark discussion” between patients and providers about what tests and treatments to use.³⁴ For example, the American College of Radiology recommends, “Don’t do imaging for uncomplicated headache.” The ultimate aim is both to lower costs and to improve quality; the campaign has had excellent buy-in from providers and specialty societies.³⁵ You can view Choosing Wisely as a sort of grassroots effort by professionals to improve the value of the care they provide, as opposed to policies determined by non-physician lawmakers. That is a remarkable trend, although the impact of the campaign remains to be seen.

¹ Regulating this conflict of interest faces powerful opposition. First, while the conflict of interest is clear in the hypothetical, physicians may be offended at the thought that their decision-making capabilities could be compromised and, therefore, may oppose attempts at regulation. In addition, manufacturers benefit monetarily when physicians buy separate equipment instead of sharing them and may further oppose attempts at regulation. Thus, both authority and money bolster the status quo.

² On the other hand, most specialty societies generally named other specialties’ services as low-value.

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**LOOSE GOVERNMENTAL REGULATIONS**

Governments in Japan, Germany, and England strictly regulate payments in health care. For instance, in Japan, the government decides what physicians may charge for any service. In Germany, physicians go to school for free but then are salaried. In England, the government negotiates down the price of pharmaceuticals.

Certainly, the U.S. government regulates the health care industry on cost, access, and quality. But our checks on costs are nowhere near those of other industrialized nations. Whether this relative weakness of regulation is good or bad (and there are strong arguments on both sides), it does contribute to higher costs for patients in the U.S.

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**HIGH PHYSICIAN WAGES**

Let’s face it: Physicians in the U.S. make a lot of money. In 2012, the median income was $51,017 for all U.S. workers,³⁵ but $220,942 for primary care physicians and $396,233 for specialists.³⁶ Those high incomes are reflected in high health care costs.

Obviously, you can offer many reasons why physicians’ wages are and should be high (they have incredible responsibility to never make mistakes, they work long hours, their jobs are important to society, they spend many years in training for little or no pay, they have a lot of debt to pay off, etc.), but let’s focus on the economic, market-based explanation: Physician supply is limited.

Limited competition contributes to high physician wages, and high physician wages drive up health care costs.

And yet . . . it’s not that simple. Areas of the U.S. with the most physicians per capita actually have higher health care spending than average³⁷ (and the quality isn’t any better either).³⁸ While economic principles tell us that competition should drive costs down, the facts indicate that other factors, like supply-induced demand and overtreatment, may be more powerful in this case. Just another reminder that, when it comes to health care, it’s always more complicated than it first appears.
ITERATIVE REIMBURSEMENTS

A large insurer like Blue Cross/Blue Shield gets billed a lot of money by any given hospital, and paying that much means the insurer has leverage (because the hospital needs its payment). The insurers use this leverage when negotiating contracts with hospitals; typically, the insurers only reimburse a percentage of the bill charged by the hospital. This gives hospitals an incentive to simply increase the prices of their services, thereby increasing the amount, if not the percentage, they get reimbursed. The ugly underbelly of this tug of war is that patients who are uninsured or underinsured (that is, those who must pay out-of-pocket) get handed a bill much higher than any insurer would ever actually pay. This undiscounted bill is known in the industry as the “rack rate.”

PHARMACEUTICALS AND TECHNOLOGY

Research, development, marketing, and use of new drugs and devices account for a large and growing share of U.S. health care spending. See Chapter 4 for more information about these industries and their financial impact.

EMERGENCY DEPARTMENT OVERUSE

Emergency Departments (EDs) are vital for hospitals since they serve as a major point of entry for inpatients. However, the sheer volume of patients choosing to go to the ED for care when they really should be going to their primary care doctor or to an urgent care center has driven up costs, impeded access, and ultimately affected quality, as well.

In the late 1980s, as health care costs and levels of uninsured patients were growing, concerns arose about EDs turning away patients who couldn’t afford care. To combat this, Congress passed the Emergency Medical Treatment and Active Labor Act (EMTALA) in 1986 for all Medicare-participating hospitals (essentially all of them). EMTALA requires EDs to screen all presenting patients to determine whether they have an emergency condition and stabilize patients who are deemed to have one—regardless of that person’s ability to pay for care. Partly as a result, ED visits have increased significantly over the past 20 years.

The groups with the highest ED usage rates are Medicaid recipients, the poor, and the elderly. These groups have higher-than-average rates of chronic medical conditions, which often require expensive, ongoing care. And all three groups are more likely to be uninsured or insured by the government. Thus, EDs can be expensive, with a lot of patients who don’t pay (although the average hospital still makes enough from insured patients to get about 8% profit from the ED). The average cost of an ED visit in 2011 was $1,354. Fifty-five percent of patients 65 or older receive an X-ray and 29% receive a CT scan during an ED visit.

Solutions proposed to reverse the trend toward overcrowded, costly EDs have been to reduce the utilization of tests and procedures (which some claim is due to defensive medicine) or to increase the availability of community-based outpatient care centers such as urgent care or retail clinics. These centers can attend to medical issues urgent to the patient but not necessary to handle in an ED. The CDC reports, for instance, that one-third of ED visits are semi-urgent or non-urgent and could be handled in other facilities. But some patients continue to go to the ED for care. There may be reasons for this—a patient might rather go to an ED after work than miss work for a PCP appointment, or might

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n Note that it is not simply a matter of sending the individual a bill. Many of the uninsured are also impoverished, and they are unable to pay these bills. If such patients do not have wages or assets that a creditor can collect, the hospital will never recoup these costs, even if the patient keeps coming back to the ED.
not have the funds for up-front payment at urgent care. These situations would need to be addressed to change the “culture of the ED.”

Disease and Society

CHRONIC DISEASE CARE

Once upon a time, humans died mostly from infectious diseases, but then the advent of sanitation, refrigeration, and vaccination put a damper on such mortality and morbidity. In industrialized nations, at least, the bugs have moved to the back of the bus, leaving room for chronic conditions to step forward. Diabetes, heart disease, high blood pressure, and cancer are ongoing, very expensive chronic conditions that plague the U.S. now, and there is no vaccine or quick cure for them. Diabetes may not be as deadly as smallpox, but it's not curable, and it costs more to treat.

<table>
<thead>
<tr>
<th>Leading Causes of Death</th>
<th>Deaths</th>
<th>Costliest Conditions</th>
<th>Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart disease</td>
<td>595,444</td>
<td>Heart disease</td>
<td>$91</td>
</tr>
<tr>
<td>Cancer</td>
<td>573,855</td>
<td>Cancer</td>
<td>$71</td>
</tr>
<tr>
<td>Chronic lung diseases</td>
<td>137,789</td>
<td>Mental disorders</td>
<td>$60</td>
</tr>
<tr>
<td>Stroke</td>
<td>129,180</td>
<td>Trauma-related disorders</td>
<td>$67</td>
</tr>
<tr>
<td>Accidents</td>
<td>118,043</td>
<td>Osteoarthritis</td>
<td>$56</td>
</tr>
<tr>
<td>Alzheimer's</td>
<td>83,308</td>
<td>Hypertension</td>
<td>$47</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>68,905</td>
<td>Diabetes mellitus</td>
<td>$46</td>
</tr>
<tr>
<td>Kidney diseases</td>
<td>50,472</td>
<td>Chronic lung diseases</td>
<td>$45</td>
</tr>
<tr>
<td>Influenza and pneumonia</td>
<td>50,003</td>
<td>Hyperlipidemia</td>
<td>$39</td>
</tr>
<tr>
<td>Suicide</td>
<td>37,793</td>
<td>Back problems</td>
<td>$35</td>
</tr>
</tbody>
</table>

In 2011, six out of the top 10 leading causes of death were from chronic diseases (the bold diseases in the table) —and 50% of American adults live with a chronic disease diagnosis. According to the Centers for Disease Control and Prevention (CDC), the best way to deal with chronic diseases is through prevention. This is worth repeating: Most chronic conditions are preventable through healthy eating and living. Thus, unless the U.S. population begins trending toward healthier lifestyles, chronic conditions will continue—and perhaps grow—as a driver of increased health care spending.

END-OF-LIFE CARE

The cost of end-of-life health care greatly outstrips that of any other time; a full quarter of Medicare spending goes to care in the last year of life. Patients, physicians, and families often “pull out all the stops” to treat those near death, even if the tests and procedures have little chance of succeeding. The bioethicist Arthur Caplan states, “What would you do if your mother needed an expensive, painful operation that had only a one in a million chance of saving her? [...] Most Americans would say ‘do it.’ In this country, we are all about hope.”

Unfortunately, you rarely know ahead of time that it’s your last year of life. It's obvious that death is inevitable, and, in hindsight, it seems odd to spend hundreds of thousands of dollars to extend lives by only a few months. Yet, for patients and their families in the moment, impending death may not feel obvious. Just as inevitable as death is the fact that health care will always be mediated by emotion. Many patients and families seek to pull out all the stops to prolong life. And that's expensive.

UNHEALTHY BEHAVIORS

Maybe you’ve heard, but Americans aren’t the healthiest people around. An astounding 75% of Americans are either overweight or obese (nearly twice as many as 50 years ago), an epidemic that accounts for more than one-tenth of U.S. health spending. Similarly, 18% of American adults smoke tobacco, which causes an array of diseases that rack up $157 billion annually. And those who undergo medical treatment don’t always do so perfectly: Less than half of all prescriptions are taken as directed, a lack of adherence that is estimated to cause 10% of all hospital admissions.

The point of this section isn’t to heap blame on those who smoke, don’t exercise enough, or miss a pill every once in a while (and by no means to suggest these are uniquely American failings, either). The point is that personal behavior and lifestyle affect health, and health itself is the major determinant of health care costs. Health care providers can treat illness and injury, screen for disease, and emphasize healthy behaviors, but, short of following patients home to make sure they eat right and work out, there’s only so much providers can do.
POVERTY AND RURAL LIVING

The U.S. government defines the federal poverty level (FPL) by family size, as shown in the table on the right with data from 2014.75 These thresholds are the same throughout the nation, excluding Alaska and Hawaii, and don't account for cost-of-living variations. The thresholds are used to determine eligibility for most government welfare programs, including Medicaid.

<table>
<thead>
<tr>
<th>Household</th>
<th>Income Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$11,670</td>
</tr>
<tr>
<td>2</td>
<td>$15,730</td>
</tr>
<tr>
<td>3</td>
<td>$19,790</td>
</tr>
<tr>
<td>4</td>
<td>$23,850</td>
</tr>
</tbody>
</table>

In 2012, 15% of Americans were living in poverty.76 While poverty may not always directly worsen health or increase health care spending, it does have far-ranging indirect effects. Living in poverty may affect a person's ability to get proper care as a child, leading to poor health later in life. It may affect the ability to get off from work for appointments or to find work that even offers health insurance. It may correlate with education and ability to understand health information. It may affect the ability to afford needed prescriptions or to buy healthy, nutritious food.

You get the idea. These examples and more adversely affect the health of millions, and poor health increases the health care costs needed for treatment. The U.S. health care system feels the effects of poverty in two ways: first, as a health determinant that physicians lack ability to change; second, by swelling the ranks—and increasing the costs—of public insurance programs.

Similar to those living in poverty, those living in rural areas have a decreased ability to access care. Rural areas have fewer physicians per capita, particularly specialists. And as we have seen, lack of access affects health status, which ultimately affects the cost of care.

POOR HEALTH LITERACY

Normally, we think of literacy as the ability to comprehend the written word. Certainly, reading ability affects health literacy, but it's about more than that. A person's knowledge of anatomy (e.g., where the liver is), body functioning (e.g., that the kidneys process urine), and basic medication information (e.g., don't take medicine on an empty stomach) has a huge impact on how he or she approaches both wellness and disease.

Clinical: Low health literacy is quite widespread in society—even PhDs complain about not understanding their physicians—and a large, nationwide study showed that only 12% of Americans had proficient health literacy.77 In a world of ever-increasing knowledge, it's understandable that those who don't specialize in medicine might not know much about it; in the world of health care, it's understandable that health professionals might forget what their patients don't know. Thus, encouraging both general patient education and provider "plain speech" are important goals.

Research: Biomedical research gets published in science journals, using standards, statistical analysis, and jargon that leave the lay reader scratching his or her head. Even with good health literacy and plain speaking in appointments, it's unrealistic to expect even the educated patient to know how to evaluate recent medical evidence. Patients must trust that their providers keep up with the literature, and this has implications for shared decision-making.

Health disparities: Disparities arise in both access and quality of health care, and they're influenced by socioeconomic status, gender, sexuality, geography, ethnicity, language, and culture. All of these categories may influence health literacy as well, but it's interesting to note that low reading literacy is the single best predictor of poor health status.78 In addition, those with chronic diseases are more likely to have limited literacy.79 It makes sense that people who have trouble reading their medication labels and understanding their physicians might have difficulty managing their diseases, which has implications not just for individual health outcomes, but also for costs and population health.

Misinformation: We live in an era of incredible access to information; however, not all of it is correct. The media can be misleading ("Carrots Will Kill You," then, six months later: "Carrots Are a Superfood"). And the Internet can be both the best and the worst friend a doctor ever had ("Doc, I have a runny nose, and I read on the Internet that might mean I have lupus!"). Obviously the media and Internet can be an enormous help, but sometimes they confuse, too.

Patients may have difficulty understanding not only what their disease process is, or what their provider is instructing them to do, but what their medicines are and how to take them. Poor understanding can have wide-reaching consequences on behavior. We see them in the following ways:
Over-reliance on providers, e.g., never getting a second opinion or always taking recommendations without sharing your own opinion
Under-reliance on providers, e.g., believing Jenny McCarthy about vaccines or using crystals to cure cancer
Mismanagement of health, e.g., eating unhealthily or not using condoms with new sexual partners
Mismanagement of disease, e.g., skipping pills or eating high-sugar foods as a diabetic
Over-prioritizing innovation, e.g., wanting the newest technology, even when it may not be the actual best
Over-prioritizing cost, e.g., not going to the ED even when you really need to because it costs too much.

Consequences of High Costs

Rationing

Health care is a limited resource: There are restrictions on money, on providers, on time, on supplies, and on technology. Unless all world resources are devoted to health care, rationing must exist.

We already do it. That is a fact, so keep it in mind through every debate about rationing. The current U.S. system rations by restricting access based on ability to pay. All potential reform plans include rationing, too—even if they simply preserve the current practice.

Rationing often gets criticized by pundits and politicians as an erosion of our rights, and certainly it feels appalling to prioritize some lives over others. However, as the ethicist Peter Singer notes, for every patient we hear about in Britain who has to wait three months for a hip replacement or cannot get an experimental cancer treatment funded, there's an American who cannot afford a wheelchair or the standard-of-care chemotherapy medication. Every system rations in some way, and each system has pros and cons. To understand health care, you must acknowledge and comprehend the ways that care is rationed and the effects of that rationing.

The real question is how to choose a method of rationing that is most fair and efficient. Different ways to arrange a system of rationing may be:

- By how much a given treatment will extend a patient’s life (e.g., prioritize expensive, lifesaving measures for the young or otherwise healthy rather than for the elderly or very ill)
- By a patient’s ability to pay (e.g., high deductibles for patients or low reimbursements for providers)
- By first come, first served (e.g., a waiting list, like those for transplants)
- By comparative effectiveness (e.g., prioritize treatments that have been proven to work well)

Being Uninsured

A lot of research has been done on the uninsured: who they are, how they access care, how they do or don’t pay for it, what the financial impacts are for society, and what the health impacts are for these individuals. An excellent resource is the Kaiser Family Foundation's The Uninsured: A Primer, which is published yearly. All of the following facts are taken from that document (which you really should read in full).

Characteristics

- 63% of the uninsured are from families with at least one full-time worker. 90% have a family income below 400% of the federal poverty level, or about $62,000 for a two-person household.
- Adults age 26–34 have the highest uninsured rate of any age group: 27.4%.
- 80% of the uninsured are U.S. citizens. The uninsured population is 45% White, 15% Black, 32% Hispanic, and 5% Asian.

Care Compensation

- In 2008, the average uninsured individual incurred $1,686 in health costs (compared to $4,463 for the non-elderly insured).
- The uninsured paid for about one-third of this care out of pocket. About 75% of the remaining, uncompensated cost was paid by federal, state, and local funds appropriated for care of the uninsured, which accounts for about 2% of total health care spending.
- 60% of uncompensated care costs are incurred by hospitals.

A commonly used metric is the Quality-Adjusted Life Year (QALY), which adjusts years of life added by the quality of those years. For example, a year of perfect health would rank as 1 QALY as a baseline, while a year of blindness might be 0.5 QALYs.
Most government dollars are paid indirectly based on the share of uncompensated care each hospital provides.

The percentage of all physicians who provide charity care fell from 76% in 1996–97 to 68% in 2004–05.62

Health Care Is Not a Normal Market

Economics is neither an exact nor an all-inclusive science. Thus, we cannot present the above economic concepts without discussing the counterpoint, which suggests that traditional market economics falls short when it tries to explain health care.

As an example, let’s look at the discrepancy between market goods and health care. In March of 2012, Supreme Court Justice Antonin Scalia compared purchasing health insurance to purchasing broccoli. When you buy groceries, all the costs are known in advance, but that’s not the case with health care.

In purchasing health care services (for instance, surgery to remove an inflamed gallbladder), many factors, some of them unpredictable, produce the total cost. How long will you be in the hospital? What other medical conditions do you have? Will you have a difficult recovery? What drugs are you going to need, and for how long? What tests will be run, and how many? A hospital administrator is not going to be able to tell you these things before the fact. Even within the same institution, there’s a huge variance in how much the same procedure costs for different individuals.

Further, even if you could know the cost ahead of time, would that change your behavior? Would you decide not to have gallbladder surgery? Would you go to another hospital? If so, would you also want to know about quality measures for your hospital, surgeon, and nurses? (Good luck finding that data.) What trade-off between cost and quality would be acceptable to you? At the clinic or hospital, would you try to figure out which imaging and tests not to do, or would you trust your doctor to know what’s best? And what if the services you turned down were preventive, so your costs increased in the long run?

Often, the most costly medical decisions are made by people under time constraints, at a vulnerable and scary time in their lives. Few have the clinical knowledge—or the desire—to challenge what the doctor suggests.

In fact, the health care system differs from a normal market in many ways beyond this example. Here are a few further examples from multiple sources:63–85

- **Information asymmetry:** Patients, providers, hospitals, and insurers all know things that the others don’t.
- **Insurance as insulation:** Cost-sharing by insurance hides the real cost from consumers.
- **Conflicting interests:** Physicians may act as both an agent for the patient as well as an independent business owner (or, more broadly, as someone who profits from the care they provide).
- **Tax subsidies:** The tax subsidies provided to employers and employees to purchase insurance distort the market.
- **Failure of competition:** The individual nature of insurance plans and hospitals keeps them from truly competing as market goods.
- **Suppliers are either legally or morally required to provide services:** Emergency departments are required to provide supportive care, local or federal government provides care for those who can’t afford it, and providers (including both clinicians and hospitals) are limited by professional and legal limitations from withholding care from those who need it.

Our health—and our health care—is subject to forces outside of our control, and it’s also an emotionally and psychologically laden subject. You can choose not to buy a pound of mushrooms. You can’t choose not to have heart disease or breast cancer, and you can’t expect someone with a health issue to make choices based solely on money. On the other hand, the limitations of the market don’t mean that market forces can’t be useful in forming a better health care system.

References