[SQUEAKING]

[RUSTLING]

[CLICKING]

JON GRUBER: OK. So we are talking about health care. We, just to remember the context, we were in some [INAUDIBLE] general social insurance framework, thinking about the costs and benefits of our social insurance programs. And we talked last time-- we ended last time a discussion of how can we apply the principles of chapter 12 to think about what an optimal health insurance plan should look like?

And we talked about, essentially, this trade-off between consumption smoothing and moral hazard, and talked about how it's hard to really justify a health insurance plan that doesn't impose some patient co-payments, because for small co-payments, there's not a lot of consumption-smoothing loss, as long as you're not too poor. And there could be a large moral hazard gain.

However, there are exceptions. In particular, really if people are very resource-constrained, this could lead them to not use care that's beneficial. And even studies I reviewed in the book show that even people who aren't that resource-constrained do cut back in a lot of care that might be beneficial. And so that suggested a more subtle approach of a system where the cost sharing imposed on patients should relate both on their resources and on the value of the care, which is fine in theory. In practice, it's hard. But that's what an optimal health insurance program might look like.

Now what's interesting is health insurance doesn't look like that. 15 years ago, health insurance actually was pretty much first-dollar coverage. There's been a growth in deductibles. If you look at the figure from chapter 15, you see the growth in the average deductibles for employer-sponsored insurance over time. There's been a large growth in the last 20 years in the deductibles people have to pay, which is the most common form of coinsurance.

So we have moved towards more patient cost sharing. But we haven't really done so in a discriminatory way of the kind that theory might suggest. And we're still in a world where these deductibles are still relatively small for a higher-income person. Even a $2,000 deductible, which is a lot for a lot of people, is still pretty trivial for higher-income people. And the question is, why is insurance not even less generous? Why is it so-- why is it really, in some sense, a system, which is so, in many ways, overly generous to a large part of the population?

And the answer traditionally has been-- one answer has been the tax subsidy to employer-sponsored health insurance. Because remember, the way that health insurance works is if you're paid in wages, you pay taxes. If you're paying health insurance, you don't. We talked last time about how that would lead people to be distorted towards getting their health insurance through their employer.

But there's another implication, which is it makes health insurance relatively cheap compared to other goods. So if I want to buy apples, I have to pay taxes first, then buy apples. If I want to buy health insurance through my employer, I don't have to pay taxes first. I just buy health insurance with pre-tax dollars. So it makes health insurance relatively cheap. As a result, people overconsume health insurance.

The story I always tell is I had a choice when my kids were little of buying the basic or comprehensive MIT dental plan. And basically, you could think of it as I could say, imagine MIT coming to me and say, look, would you rather earn $1,000 in salaries or $1,000 in dental benefits? Well, if the $1,000 in salary, that would basically mean, if I had another $1,000 salary, I'd take about $500 home. If I get another $1,000 in dental benefits, I get the whole $1,000.

So I did it. And my daughter got these cool braces that change colors. And they were awesome. Because why the hell not? So basically, we think part of the use of the over-generosity of health care, of health insurance in America, is because of this tax subsidy.

So the tax subsidy-- lets focus on the tax subsidy for a minute because it's an important policy tool. Basically, there's three fundamental things wrong with this unequal treatment of compensation in the form of wages and compensation in the form of health insurance. The first thing wrong is it costs a lot of money.

So if we think that, look, either one's compensation, by treating one tax-free and taxing the other one, we lose $350 billion a year in revenues. The second is what I just described, which is it's potentially inefficient because it induces excessively generous health insurance.

The third is that it's also inequitable. We haven't really talked a lot about equity in this class. We'll get there more soon. But the bottom line is, if you think about it, the way this works is you can deduct-- you don't get taxed on the cost of your health insurance. That means the higher your tax rate, the bigger break you get.

Well, what causes people to have a high tax rate? Being high income. So basically, higher-income people get the larger tax break in this system. So if you think about it, what the tax subsidy is, it's basically a bribe for employers to offer health insurance. And that bribe gets larger the richer the employee is. That's not really-- doesn't sound very good as a policy design principle.

So many people have said we should get rid of it. Indeed, one fun family story is I was coming back from the beach one day with my kids, and I got a call from a friend in the White House. This is in 2009 or 2008. 2009-- a friend from the White House saying, the president wants you to come down. The President wants you to come down and talk to him about the Affordable Care Act.

And I was all excited. I hung up. I said to my kids, this is great. I'm going to talk to the President. And my daughter, who was, I guess, 10, said, that's so cool. You're going to meet with him alone. I said, no, I'll be in a room with a bunch of other economists. And she said, oh, that's not that impressive, then. So kids keep you humble.

But I did get to meet with him with these other economists. And he said, well, how should we control health care costs in this bill? And the only thing we all agreed on for sure is get rid of the goddamn employer health insurance subsidy. That makes no sense.

The problem is that-- there's a political economy problem, which is that while I can talk till I'm blue in the face about how this is removing a tax subsidy, people say it's a new tax. So that's hard to do. The other problem is that there's a political problem. There's also potentially an economic problem, which is this part of the reason we have so much health insurance through employers, remember, is this tax break. If you take it away and employers stop offering health insurance, will people become uninsured? And that's a concern as well.

So that's one reason people didn't want to take it away. Now the answer to that is to have systems outside employers where we can get health insurance. And I'll talk about that next lecture with the Affordable Care Act. But nonetheless, that was a concern, that basically if we got rid of this tax break, people would lose their employer-sponsored insurance. They'd become uninsured.

For that reason, a much more popular idea is the idea of capping the tax exclusion. So let's say, instead of saying you're never taxed on your health insurance, let's say you're only taxed on health insurance that costs above the average level of health insurance. So if you buy a typical plan, it's tax-free. But if you buy a more generous plan, we're going to start to tax you.

The idea there is A, we raise money. B, then the tax break isn't encouraging excessively generous insurance. We're basically saying, look, we can't get rid of the tax break altogether. We want to make sure people get insurance. We're worried about them losing insurance. But we don't want to subsidize generous insurance. So let's have a tax break that's tied to a typical cost of an insurance plan. Anything above that, you lose the tax break. It's called capping the employer tax exclusion.

So that became a very popular idea. And I'll come back next time and talk about what happened when we tried to do that in the Affordable Care Act. But that's one way people have thought about dealing with the economic fallout, the potential fallout of people losing health insurance. We'd say, we'll let you keep this tax break, but only up to a certain level. And that's one idea people had.

Questions about that? So that's all I want-- yeah, Enoch?

AUDIENCE: Higher income people will basically get more out of it?

JON GRUBER: Yeah.

AUDIENCE: They get more money back because otherwise they'd be taxed more.

JON GRUBER: Yeah.

AUDIENCE: More money means less to them than like--

JON GRUBER: Less what?

AUDIENCE: More money doesn't mean as much to high-income people.

JON GRUBER: Oh, well, no. But that's a great point. So you're saying, as a percent of income, are they getting more back? The answer as a percent of income, they-- so the very richest aren't. The near-rich are getting more. They're also more likely to have insurance coverage in the first place.

But you're right. This becomes something we discuss a lot in chapter 18, which is how do you measure fairness? It's very tricky. Yeah, Evan.

AUDIENCE: We'll still capturing information about some people might just prefer to have more generous insurance, but that's fine because they can pay for it.

JON GRUBER: Yeah, exactly. The question is, why is the government subsidizing it? We're not saying you can't have it. We're just saying, why is the government paying for you to have it on the margin?

The idea would be, if we go back to our flat of the curve, that we think giving people some insurance might be good for their health. But there's no reason why we should be subsidizing very generous insurance. Yeah?

AUDIENCE: Last class, we talked about some of the benefits of the employer-based insurance, which was that it mitigates the adverse selection of fixed costs. Is there a reason why it might be good to incentivize employer-based insurance?

JON GRUBER: That's one reason why. So in some sense, you could think of this as-- in economics, we talk a lot about what's called second-best problems. The first best is 14.01, like everything works. The second best is, well, if something goes wrong, what's the thing you can do under those conditions, the constrained best optimum?

You might make what's called a second-best argument for the employer tax subsidy saying, well, look. There's reasons why we want people to have insurance through their employer. The only way we can make that happen is through this bribe to employers. So let's do it. It's like a subsidy to insurance.

The problem-- and you could say-- the counter would be, well, if you're going to subsidize insurance, why do it through employers? And the argument would be, well, they're a natural pooling mechanism. And we'll come back next time to talk about why it might make more sense to use other pooling mechanisms. But that would be the kind of-- this important kind of argument we need to get good at developing, which is recognizing that we're not in 14.01. Given failures, what's the best thing to do and the trade-offs in those. Yeah?

AUDIENCE: The curve [INAUDIBLE]

JON GRUBER: The medical effectiveness curve. So that's what I say about the first-- like I said, we talked about the benefits of insurance, the cost of insurance. But there's a whole other dimension now that we skipped in chapter 12 and 13 and 14, which is the role of the medical provider.

When we talked about unemployment insurance, for example, the key thing that determined how long you stayed unemployed was your trade-off between leisure and UI benefits. But what determines how much medical care you use is mostly your doctor. I mean, you might decide whether you go to the doctor. When you get there, you're largely not going to not do what the doctor says. The doctor largely determines it.

So now we have to ask ourselves-- there's another component of moral hazard we have to worry about, which is moral hazard on the provider side, which is, how do we think about not just what patients have to pay when they get health care, but how we should pay the providers to deliver that health care. Now traditionally in America, and the whole world, we had what was called a fee-for-service, fee-for-service medical system.

What is a fee-for-service medical system? What it sounds like-- the doctor does a service and they get paid. Dr. Ahmet fixes my knee. Dr. Ahmet bills me for a knee. As long as the bill isn't insane, I pay it, as the insurer. If Dr. Ahmet bills me $1 trillion fixing my knee, I know Dr. Ahmet's not on the level. But basically, they had a thing they called usual and customary reimbursement. Sort of sounds sensible.

The problem with this is that this led to a concern of doctors over overusing health care. So think about a doctor as having a utility function. I'm not about malicious doctors, scumbag doctors. No, a regular Joe doctor, good guy. Regular Joe doctor's utility function includes two things-- your health as a patient and their income.

They care about their income. They're not selfless. I said they're regular. They're not criminal, but they're not selfless, either. As a result, think about the incentives facing that doctor to do any service which has an even an infinitesimal chance of benefiting you, but might make them money. They'll do it.

Indeed, you could go further and say if it doesn't hurt you too much, they might still do. Measures which infinitesimally hurts you but makes them money, they might still do it because they care about both things. As a result, as you think about that flat of the curve, doctor incentives are pushing way out towards the end of the curve.

Because as long as it doesn't hurt you, and as long as there's even a chance it might benefit you-- so let's say the doctor sees you and you have something which, once in the last 50 years, someone found someone with those conditions had brain cancer. So they ordered a brain scan for you and it finds nothing because it's one-out-of-a-gazillion cases that found something.

But why not? It doesn't hurt you that much. Doesn't hurt you at all. It's just a brain scan. Makes them some money. So the concern with the fee-for-service system was it would lead to overuse of health care, overprescribing health by doctors. And that's why, in the 1980s, we started moving away from the fee-for-service system towards managed care, a term you're all familiar with by now.

Managed care is the notion of not just a purely system where doctors do what the hell they want and bill you for it. Managed care began in a very simple way with what was called preferred provider organizations, preferred provider organizations, or PPOs. This is what started early on. The way these worked is they simply said, look, this wasn't really dealing with a moral hazard. This was saying, look, there's all these extra rents being made by providers. And could we redistribute those rents back to insurers and people?

And the way it worked was the following. It started out in California, Northern California. And an insurer went to Hewlett-Packard, a or a company like Hewlett-Packard, and said, if I can save you 25% on your health care bill, would you be willing to tell your patients they can only use hospital x, y, or z? And Hewlett-Packard said, sure.

Then they went to hospitals in the area and said, whoever will give us 40% off, you can get the Hewlett-Packard patients. But if you don't, you won't get them. The hospitals are like, well, geez, we're making these zillions of profits. We'll happily give you 40% back to get the patients. The PPO pocketed the 15% difference, went back to Hewlett-Packard, and said, hey, look. Here's a list of hospitals. Restrict your employees to go into these hospitals, and you can save 25%.

Essentially, they became a middleman scooping up the rents that were being excessively earned by these health care providers. And PPOs lowered health care costs a lot, but not necessarily through changing the efficiency with health care. They weren't really addressing the moral hazard problem. They were just scooping up the rents that providers at that point-- essentially, imperfect competition created rents. PPOs became a competitive mechanism to recapture those rents.

So that was the first wave. But the really exciting wave was the wave of the HMO wave, health maintenance organizations, because what HMOs were is they were essentially the integration of the delivery and the insurance of health. HMOs said, let's get rid of the separation of the company that insures you and the company delivers the care. Let's integrate them, the most famous of which, initially, was Kaiser Permanente in California.

What they did is they said, we are not going to have a system where your insurer-- instead of signing up for Blue Cross and Blue Cross, pays whatever doctors want, you sign up for Kaiser. You have to go to a Kaiser Hospital or doctor, so you get the PPO effect.

But moreover, we're going to change the way our providers are reimbursed. We're going to move from a fee-for-service system to a prospective reimbursement system. What is a prospective reimbursement system? A prospective reimbursement system is where doctors are paid not based on what they do to you, but based on something else.

So for example, one type of prospective system is doctors are paid a salary. Kaiser just paid their doctors a salary. It didn't matter how many people you saw or what you did. So there's no more incentive to give the extra test, didn't make you much more money. You made your x $100,000 a year, regardless of what you did to people. So we got rid of the incentive to overtreat people because your salary didn't depend on it.

You could go further than that. So that's one approach. Further approach is the evil-sounding capitation, which is not decapitation, but capitation approach, which is to say to doctors, look, we're going to pay you per-- you're going to have a panel of-- it's the easiest thing with a primary care doc, a pediatrician. We're going to say to the pediatricians, you're going to have a panel of kids. For every kid who's enrolled with you as their doc, you get x dollars, stop, full stop. It doesn't matter what you do to them. You get that.

The thing about this system-- it flips all the incentives on their head. It used to be when that kid came in to my system, every test I did, it made more money. Now, every test I do, I lose money. Why? Because I get paid the same amount for the kid if I ignore him or treat him. So it flips the incentives on the head. And now, instead [INAUDIBLE] to undertreat because, basically-- what it does is it changes the risk, who bears the risk.

Under a fee-for-service system, the payer bears the risk. Under capitation system, the provider bears the risk because they get a fixed payment regardless of what they do. So they do more-- they're going to lose money. If they do less, they're make money. Yeah.

AUDIENCE: And that money loss is for the doctor because it's them spending their time doing that--

JON GRUBER: No, because they literally--

AUDIENCE: [INAUDIBLE]

JON GRUBER: But their time is money. That's why I use a pediatrician. I mean, I'm not talking about surgery. I'm talking about pediatrician. They get paid for their time. So now they're spending their time. So the point is if Ahmet's a pediatrician and Val's a pediatrician, and Ahmet's going to spend three minutes-- like my workers' comp doc, spend three minutes seeing kids all day, he can see a ton more kids than Valerie can, so he'll make more money.

So basically, that was the switch, was basically the idea of moving towards a prospective reimbursement system. This was a very radical change. Now, HMOs eventually evolved into two types. The original Kaiser type was what was called IPAs, independent practice organizations, literally, the full integration of an insurer and a doctor.

But many people found that too restrictive. So we actually went to panel models of HMOs. The way the panel model worked is the HMO set up a panel of doctors. They didn't have to work for that company. So there's now a-- I belong to the Blue Cross HMO. The doctors don't work for Blue Cross. But if you want a Blue Cross HMO, it's like a PPO. You have to sign up for it. And you agree, but it's a PPO with prospective system, with prospective reimbursement. So my doctor gets paid a fixed amount for having enrolled me by Blue Cross Blue Shield, but doesn't get paid any more based on what he does to me.

So IPAs are the most extreme form, where, basically, literally, the insurer and the doctor are one and the same. The typical HMO is not that. Typical HMO is like Blue Cross, where the doctor's independent, but the doctor, to be signed up by Blue Cross, has to accept, I'll take this payment per patient, or Blue Cross says, I won't sign you up.

Because of this-- and we'll come back to this next time. This is why the key differentiator across insurance companies is becoming their panel of doctors. Insurance companies don't differ that much, especially since the ACA, in what they cover. What they differ is in which doctors they've signed up. And obviously, the more money you pay doctors, the more you can sign up. So we've moved towards this prospective system.

Now, what effect has this had, of moving to this? Well, on the one hand, the strong prediction would be it would save money because you move from one where the doctors make more money by doing more on the margin to the doctors make more money by doing less on the margin.

The problem is you can't just compare those who are in HMOs to those who aren't because it's endogenous. People get to choose. A sick person is not going to want to be in an HMO. They're going to want be able to go to whatever doctor they want. HMOs limit your choice of doctor. It's only the doctor who's signed up with them. So the problem is you have a natural bias problem in comparing those HMOs and outside.

There's been a bunch of papers that have dealt with this in various ways. They all come to a very consistent conclusion, which is, A, there is enormous selection. Sicker people are much less likely to sign up for HMOs than healthier people are. B, when you control for that selection, HMOs save a lot of money, like, maybe 20%, 25% A lot of money, through this alternative model. So the first factor's the selection. The second factor's they're lowering spending. Yeah.

AUDIENCE: That saved money is accrued just generally or to the actual person that saved it?

JON GRUBER: Ah, great question. As we'll talk about in tax, what's the incidence of that savings? And basically, we think that a lot of it has gone to the insurers, and some has gone to the people. In a perfectly competitive market, it would all go to the people. In fact, one test of lack of perfect competition insurance markets is showing that when insurers save money, their profits go up. In a perfect competitive market, they wouldn't. So they have an imperfect insurance market, and so they've been keeping a lot of it.

Now, that raises the other question, which is, what about health care-- what about quality? Have they saved money by going too far? And the answer is, no. The answer is that the quality of care, overall, delivered by these HMOs was no lower than it was delivered by traditional fee-for-service medicine.

Now, there was a range. Some studies found it was lower. Some studies found it was higher. But the consensus of the literature is basically zero. The consensus of the literature is these organizations are delivering comparable quality care, at least in terms of patient health, comparable quality of care in terms of patient health, at lower cost. Why? Because we're on the flat of the curve. Because doctors under fee-for-service were delivering excessive medical care. These HMOs managed to get rid of the excess without going too far.

Now, there's a question-- why didn't they go too far? Why doesn't Ahmet see a patient every 15 seconds and just make an oodles of money? And the answer is because there seems to be enough incentives in our system pushing the other way that doctors still don't undertreat people. In particular, medical malpractice pressure-- they might get sued. Or just norms-- doctors still have patient utility in their-- patient health in their utility function.

So the bottom line is, it feels like this move to managed care was a move which managed to move us in the right direction and not too far, if you measure by patient health outcomes. But there is another reason people like managed care, which is it's just a less pleasant experience. It used to be you'd go to whatever doctor you want, and they just treated you. Now they have to review what procedure you're going to get. There's a bunch of extra paperwork. It's extra time. You might have to wait longer. So they've made the incidence in terms of who's won-- part of it is patients have lost because it's a less pleasant experience, but it's a lot cheaper.

This is a little bit like-- if you remember-- those who took 14.01 with me, remember I taught you about airline deregulation, where everyone bitches about airline service, but no one bitches about the fact that airline-- that flights are a third, lower, third less expensive than they used to be before we deregulated because, basically, they were providing excessive quality. Doctors were providing excessive quality before. They're providing less, which is a little less pleasant, but we all like having the savings.

So that is the bottom line. Where does this leave us on optimal-- so we talk about optimal design of insurance from the patient's perspective, which is about high-design cost sharing? What an optimal design of reimbursement. Where this leaves the optimal design of reimbursement is that, basically, a pure fee-for-service system almost certainly makes no sense.

The evidence is good that a managed care system may be a better approach, but there remains concerns in certain contexts of providers going too far. So you really want a managed care system with some checks on it to make sure, so for example, something which may allow some escape valves so that providers don't-- or just monitoring to make sure providers don't go excessively too far. Yeah.

AUDIENCE: The airline example [INAUDIBLE] an important part of that is that people are experiencing much lower flight rates now. Is that the case for insurance?

JON GRUBER: Much lower what?

AUDIENCE: Are people paying much less for insurance these days?

JON GRUBER: Yes. Well, it's just a time series, right? But certainly, insurance is cheaper than it would be under the old system. Yeah.

AUDIENCE: This sounds like vertically integrating.

JON GRUBER: Yeah, this model is very much vertical integration.

AUDIENCE: So in the [INAUDIBLE] this would also have some effect [INAUDIBLE].

JON GRUBER: Well that's a great question. We don't do antitrust in this class. You can take 1420, which is a terrific class to learn more about antitrust issues. But basically, that's the trade-off with antitrust in a health care setting is that vertical integration can deliver efficiencies of this type, but it also lowers competition.

Horizontal mergers are very bad for competition, obviously. Vertical are not obviously bad for competition because the insurer and the doctor weren't competing with each other. The question is whether you end up with these vertical institutions that self-refer and end up limiting competition. And so there's a rigorous debate about that. Yeah. Enoch?

AUDIENCE: So we think the quality hasn't changed that much, but the experience is much less enjoyable. And there's a lot more procedures and paperwork that people have to go through. Does that point towards-- not the purpose, because that's-- I get that [INAUDIBLE], but is the point of health insurance that's if you don't die or just that your utility function--

JON GRUBER: Well, that is a great question. I mean, in some sense, this comes to the very fact that economists think about health insurance differently than people do. Not that we're not people, but you know what I mean. Basically, economists talk about health insurance the way I taught you in this class, which is as a means of protecting you against risk. That is something which says that, for example, rich people should have high deductibles. People think about health insurance as medical prepayment. Think about it. I've already paid my premiums. I don't want to have to deal with anything else.

Now, we can tell them till we're blue in the face they're wrong. That's not the point of insurance. But that's what people-- part of what people like. So for example, people heat the idea of having to pay when they go to the doctor. And you can explain, well, actually, it's a small price to pay-- it lowers your premium, whatever. No. They hate it.

So if you really think of insurance as just something which makes your-- you pay once every month and forget about it, then many people would rather pay more every month than have a hassle-free life later on. And the trick is-- I'll come back to this later in this lecture-- do they really have that choice or not? And we'll come back to that. Yeah.

AUDIENCE: I understand the different ways of paying providers offer different incentives for providers. What happens when one provider is paid by multiple payers?

JON GRUBER: It's a great question. Very complicated and interesting question is, does it spill over? If half my patients are managed care and half are fee-for-service, does that affect how I treat the fee-for-service patients, compared to all-- and the evidence is not great on that. OK, yeah.

AUDIENCE: I just have a question. So for fee-for-service-- is incentive for the provider to be efficient and be more productive--

JON GRUBER: Right.

AUDIENCE: --even though he might be on the other side of the curve where the benefit to the patient may not be high. But I would imagine that with the managed care system, the incentive for--

JON GRUBER: No, there's no incentive to be more productive with fee-for-service. There's incentive to do more stuff, but that's not productivity.

AUDIENCE: In the sense that if you look at [INAUDIBLE].

JON GRUBER: The incentive to work harder.

AUDIENCE: Yeah, work harder.

JON GRUBER: Yeah, but working harder-- it's an interesting point. It flips on its head what we learned about when we thought about labor supply. Talking about labor supply, we're like, look don't want to get in the way of people working hard. Well, the problem is people working hard on labor supply is increasing social welfare. People working hard here is lowering social welfare because they're limiting a bunch of care that, as Feldstein showed, has deadweight loss. So it's not productivity. It's a good distinction.

So now, that's a lecture and a half on basic health ace economics. Now we're going to come for the next lecture and a half, to the government programs and how we can take the tools we just learned and use them to think about optimal design of government health insurance programs.

So let's start with Medicaid. Medicaid is insurance for the? Poor. Medicare insurance for the elderly. So let's start with Medicaid, insurance for the poor. Let me-- now, like I did with the other social insurance programs, let's do five minutes on institutions, and let's dive into the economics. So what is Medicaid? Medicaid is a federally subsidized but state-run program that provides health insurance to low-income individuals who reside in that state.

Now, who is eligible? That has changed a lot over time. Traditionally, Medicaid began as a program for just those who were very poor, who were getting cash welfare checks from the state. So think people whose earnings were, like, $5,000 a year or less, tiny.

Then during the 1980s and 1990s, it expanded for two groups, for children, especially children under 5, and for pregnant women. It expanded quite a lot, to the point where, in many states people were eligible-- instead of-- if you weren't pregnant as a woman, you couldn't get Medicaid if your income was above $5,000. But if you were pregnant, you'd get it if your income was up to $50,000. So there was a huge expansion up into the middle class, from the very poor into the middle class for those groups. Yeah.

AUDIENCE: 5 or 5-0?

JON GRUBER: 5-0. it was it's a huge expansion up into the middle class for those groups. And basically, that happened-- that kept going through the 1990s. And basically, you had a situation, by the mid-- by the year-- into the 2000s where, basically, essentially, basically, any kid, anyone from pregnancy was eligible up to about the typical income in America. So basically, if you were below typical income in America, in most states, you're eligible for health insurance as a kid or for expense of pregnancy. But except for those groups, it was very hard to get. You had to be very, very poor.

That changed with the Affordable Care Act. The Affordable Care Act made it a universal, what we call means-tested program, which is for everyone below 133% of the poverty line, which, as I said, for a family, is probably about $30,000 or $32,000 a year, you now get Medicaid-- kid, adult, whatever. Now, the kids still get it up to higher incomes. Kids still get it up to higher. But for everyone now, they get it, 133% of poverty line.

But because of a Supreme Court decision in 2012, states can decide if they want to offer this. And I'll come back to this next time. But for reasons that I will charitably characterize as political malpractice, a number of states have not taken up this option. So in about 10 to 12 states now, you still can't get Medicaid if you're poor, even if you're at 100% of the poverty line. Yeah.

AUDIENCE: The money comes the state?

JON GRUBER: From the feds. No. Medicaid, in general, is basically 67% fed, 33% state. And the formula is an inverse function of state income. So basically, Massachusetts, 50/50. Arkansas, it's, like, 70/30. I'm sorry. On average, the states-- the federal government pays about 56% of the cost of Medicaid. But these expansions under the ACA were 100% federal. So they went to the states and said, we'll pay all the costs to expand. A number of states still said, no.

So that's who's eligible. What's covered? Basically, Medicaid is really good insurance. I like to call it the best insurance money can't buy. It covers pretty much everything, pretty much free. So basically, any medical service is pretty much covered for free. In many states, that includes dental, vision, et cetera, things that many health insurance plans don't cover.

That's the good news. The bad news is that state Medicaid programs-- they don't have a lot of choice over what they cover. They have a choice over two things, who's covered-- and as I said, the ACA's taken a lot of that choice away. So pretty much, you have to cover poor people. And how much providers get paid. And states vary a lot in how much providers get paid. And in a particular, number of states, providers get paid very, very poorly for seeing Medicaid patients, typically on the order of-- it can be as low as 10% of what they get for a privately insured patient.

So for many, many years, doctors in New York-- if they saw a Medicaid patient-- I don't know what it is now. You got about $12, where you're getting $200 for seeing a private patient. And this has been shown in survey after survey to cause doctors to not want to see Medicaid patients. And that's legal. It's illegal to turn someone away at the emergency room, but it's legal to turn someone away at the doctor's office.

So as a result, there was-- on the one hand, Medicaid this great insurance, but you can't find doctors to take it, is the challenge. In particular, the problem's particularly acute in rural areas and inner city areas. It's particularly acute finding doctors that will take the Medicaid coverage. So it's a mixed-- it's a mixed bag. That's Medicaid.

Now, let's go back to the chapter 12 framework Moral hazard-- we don't need to cover with Medicaid. Basically, it's got all the moral hazard free health insurance would have, subject to the fact that if you can't see the doctor, there's no scope for moral hazard. Let's talk about, though, the other side, the benefits. So how do we think about the benefits of health insurance? Well, one benefit is the consumption-smoothing benefit.

Does having Medicaid help you smooth your consumption, in particular when you get ill? And the answer is strongly, yes. There's a number of studies which show that when Medicaid expands and people get Medicaid, they are much less likely to go bankrupt. They're much more-- the bankruptcy's mixed. But much less likely to have bad credit scores, much more likely to be able to have more to eat, much more likely to be financially stable and secure. So it looks like it is smoothing consumption of individuals. So it does lower bankruptcy. That's right.

So that's the one piece. And in some sense, that's the main piece. It is health insurers. But remember, the role of health insurance is to protect you financially. That's the goal of health insurance, is to protect you financially. And the answer is Medicaid does that job. People are not well self-insured against these medical risks. And when they get Medicaid, they're protected financially.

However, really, truly, what most people seem to think is they want to know if health insurance is good for your health or not. That's what we want to know with health care. And so the question then is, does having Medicaid actually improve your health? And it turns out this is a complicated question. And so to do that, I developed this highly technical chart, which is the first chart we have, figure 16-1, which talks about the steps through which making someone eligible for Medicaid might actually lead to improved health.

Let's take these ACA expansions. We increase eligibility for Medicaid. How does that translate to improved health? Well, it does so through a number of steps. The first step is, well, you have to actually take that health insurance. So for someone who was previously uninsured to the right-- previously uninsured to the right, you have to take up. Remember, we said take-up is imperfect.

Moreover, it may actually impact enrollment and insurance if you're already insured. Like I said, MIT makes me pay $6,000 a year for health insurance where I have a $3,000 deductible. Medicaid would pay nothing for a plan where everything's covered.

I might think, gee, that's a pretty good deal. If I'm eligible for Medicaid, maybe I want to drop my private insurance and move over to Medicaid. That's a typical example of crowd-out, where you had a private insurance that's crowded out by this public insurance, and that can happen as well. So there's two ways that increased eligibility could lead to increased Medicaid coverage through take-up of the uninsured and crowd-out of the insured.

But coverage then-- the question is, does that lead to increased utilization? And the answer is, it's not clear because of the doctor access problem. Coverage clearly will increase the demand for health care, but will it increase the actual delivery of health care depends on how supply-constrained you are. So the next question is, well, if you get coverage, does it actually increase their utilization?

Then the next question is, does that utilization actually translate to better health outcomes? We've talked about a lot of studies which are showing that changing health insurance doesn't seem to change health. We saw that with the RAND Health Insurance Experiment. We saw that with these managed care example. So does it actually improve your health?

And then the last step we care about as public finance economists is, does it do so cost-effectively, or should we just give people cash because it's a cost effective way to improve health?

So to study this, there's been a large literature-- I've been a contributor to this literature-- which has looked at the effect of Medicaid on various outcomes. And what we have is we have the huge advantage that the expansions in the '80s and '90s in Medicaid happened in a very differential way across states and across demographic groups.

So for example, if you look at table 16-1, this shows what happened to eligibility for Medicaid among kids in two states. So in 1982, 12% of kids in Missouri were eligible for Medicaid. 20% of kids in Michigan were. Michigan is higher income and had higher eligibility. Why? Because their program was more generous in 1982.

By 2000, when the states had expanded, now 76% of all kids in Missouri are eligible for Medicaid. That's what I meant. It really went up to the middle class. It's 34% in Michigan because Michigan's a richer state. So you have a difference in difference here, where because of a national expansion that increased it to a certain poverty, certain income level, that had a much bigger effect in Missouri, where people are poor, than it did in Michigan, where people are rich. Yeah.

AUDIENCE: The CHIP program [INAUDIBLE]?

JON GRUBER: The CHIP program-- I'm folding it into Medicaid. So basically, that is a classic diff-in-diff we can use to study. But it's better than that because states expanded differentially for different ages of kids. So if you look at Missouri, in 1982, 18% of kids at age 13 were-- I'm sorry, this is Washington DC, another example. In 1982, 18% of kids at age 13 were eligible, and 48% were eligible at birth. By 2000, the share at birth had barely budged, but the share at age 18 had gone up a lot.

So that's another difference you can exploit, is different age kids within a state. So it's got all the fun chapter 3 stuff going on. Lots of differences in differences floating around here. And so lots of people have used this now. There's probably hundreds of articles written. And now, of course, we have a whole new literature because some states expanded under the ACA, and some didn't. So we had an old literature. Now we have a whole new literature that's using those experiments.

So what have we learned? OK. First of all, we've learned that take-up is very impartial. If you look at a straight line from Medicare eligibility to Medicaid coverage and you ask for every person made eligible, what share actually gained coverage? The answer is about 20% to 25%, really low. Of every person made eligible, only 20% to 25% get covered.

But that ignores the fact that there's two channels, because it turns out most of the people made eligible by the expansion of the '80s and '90s already had health insurance. So what you really want to know is the two separate channels. How much is covered [INAUDIBLE] among people who were previously uninsured, and how much is crowd-out?

And what you find is that among people previously uninsured, the take-up is probably more like 2/3, which is typical for a social insurance program. 2/3 is about how often people seem to take up these entitlements. By the way, it's crazy. This is a free entitlement that you're getting, worth thousands and thousands of dollars, and a third of the people turn it down. We've talked about reasons why that be. That might be information failures, hassle, cost, stigma, et cetera. But nonetheless, it looks like it's about 2/3 take-up. Yeah.

AUDIENCE: Is there a reason why it can't just be given automatically to those [INAUDIBLE]?

JON GRUBER: Well, the question is, how would you give it automatically? It is given automatically-- I mean, literally, what you could do-- I mean, you could send people letters. But the problem is-- the reason it can't be given automatically, necessarily, easily, is because it's income-targeted. So you have to first confirm my income. Now, you can go back and confirm it with tax data, but that's old and takes a while to get. And the federal government doesn't like sharing tax data across branches.

So this leads to a major issue we're having now in Medicaid, which is that during the crisis, during COVID, we essentially made everybody who applied eligible for Medicaid. We didn't check your income, basically. As long as you self-attested you were poor, we let you on. We didn't check if it was true.

So the problem is now, we're checking, and it turns out a huge, huge number of kids on Medicaid weren't actually eligible or aren't eligible now. And there's millions of kids losing their health insurance as a result, which is an issue we're dealing with now.

AUDIENCE: [INAUDIBLE] Is that fraud?

JON GRUBER: Well, no, it's a great question. It's fraud if they lied about their income when they signed up. What about if their income has changed? Then it's not fraud. They ask about your income now. Now, technically-- so the way Medicaid works is they do a reevaluation every-- periodically, every six months or every year, where they're re-ask about your income. So the idea is when you're made eligible, you are guaranteed that eligibility, even if your income goes up, until the next recertification. At the next recertification, they ask you.

The problem is the following. They do these recertifications. Tons of kids lose Medicaid. It turns out many of them-- the best estimate is about 2/3 , or 1/2 to 2/3-- are actually still eligible. They just missed the letter, or they couldn't read the letter, or something like that. So this fascinating trade-off that no one's ever really figured out how to deal with, which is, on the one hand, I don't want to give rich kids Medicaid. On the other hand, when I try to kick people off, I kick a lot of people off who shouldn't be kicked off. And how do you resolve that trade-off?

That's a really interesting problem we're dealing with right now, that many of the kids who are losing eligibility now may still be eligible. The parents just didn't get the letter, or they just can't read it, or they're not paying attention. Yeah.

AUDIENCE: So just at the time of service, can you not just have the equivalent of that letter thing happening?

JON GRUBER: No the problem is, how's the doctor going to know your income? I mean, the problem is-- once again, universal would solve this, but without universal, it's hard to solve.

AUDIENCE: Is it fair to say that-- I don't know-- if society is worse off, if people have health insurance for, let's say, during COVID and then they get kicked off versus them not having it at all?

JON GRUBER: I don't think so. Certainly, you could talk about a model where-- you'd have to have a situation where-- yeah, I mean, you could imagine you got health insurance. They found out they had cancer, and they kicked them off before they could deal with it, and they're sadder knowing they have cancer. Either way, their cancer would have been dealt with, but they're sadder knowing they have cancer. So it'd have to be something which involved people's well-being of knowing whether they're sick or not. That'd be the story you'd have to tell.

What about crowd-out? Well, crowd-out is real. By the way, it's ambiguous whether crowd-out would be real or not, because remember, on the one hand, I described why I might want to drop my MIT insurance. On the other hand, if I drop my MIT insurance and my income goes back up and I can't get Medicaid anymore, maybe I can't get my insurance back. And maybe I like my MIT insurance. I don't want to be in the government, et cetera. So it's ambiguous how big crowd-out out would be.

The estimates here are varied, but the best estimates are crowd-out and even how you define it. The best estimates are that of the people who get covered, about half we're covering-- about half came from previously uninsured, and half came from previously insured. We call that about 50% crowd-out, that of every person who's gaining-- of every 1,000 people gaining coverage through Medicaid, about 500 used to have health insurance, and about 500 didn't have health insurance.

Now, why do we care? Well, we care because the people who used to have health insurance now are-- it's on the public bill. It used to be on the private bill. Distribution-- we might be OK with that, but efficiency-wise we're not really changing anything. We're just shifting costs from the private to the public sector. Classic crowd-out issue. So that's the first node of this chart.

The second node is, well, given that those people already had health insurance anyway and given it's hard to find a doctor, do you actually get more health care? And the answer is unambiguously, yes. Study after study shows large, large increase in Medicaid eligibility-- in using health care when you get Medicaid. Despite the barriers, despite the crowd-out, huge increase in health utilization.

Then the question is, well, does it improve health? Now, here, it's a fascinating-- I'm going to diverge for a minute to a fascinating lecture on methods, if you will, in economics because it's interesting, at least to me, and you got to listen. Well, you don't have to listen. I'd like you to listen. Basically, there was a literature up until about 2010, about 2008. And that literature was fairly consistent, that giving people Medicaid improved their health, that they use more health care, and health outcomes were better.

And there were all these cool quasi natural experiment studies, quasi experimental studies, showing-- some by myself, showing that, for example, when mothers got Medicaid, they were much-- the babies were much less likely to die, when kids got Medicaid, they were much less likely to be sick and go to the hospital. Lots of evidence that Medicaid was improving health, and actually, that it was doing so cost-effectively, that if you looked at the cost of increasing what we're spending on Medicaid versus what we're getting for health, we're doing things like saving a baby's life for a million bucks, which, if you think back to chapter 8, is not bad. We think lives are worth $10.5 million. Saving a baby's life for a million bucks is not bad. So we were doing things-- we were improving health and doing so fairly cost-effectively. That was round 1.

Round 2 was this very famous Oregon Health Insurance Experiment. The Oregon Health Insurance Experiment was a study where the state of Oregon decided they wanted to expand Medicaid-- this is pre-ACA. Decided they wanted to expand Medicaid for adults. They wanted to add 10,000 more adults to their Medicaid program. So they took applications from uninsured people, and 100,000 people applied. So they decided a fair way to allocate it would be to have a lottery, so they ran an experiment. They ran a lottery, and 10,000 people got it, and 90,000 people didn't.

And a team that I was part of but which was led by my colleague Amy Finkelstein and Kate Baker, formerly of Harvard, now the provost at Chicago-- they looked at what effect this had using-- it was an experiment. And the findings were people used a lot more health care. Like I said, that's clear. But their health wasn't measurably much better.

Now, one exception-- their measures of physical health were better. Their blood pressure didn't change, things like that. One exception was mental health. Depression went down by 30%, almost instantly. So that's weird because even Prozac doesn't work that quickly, and it wasn't like they were putting it in the water.

What happened was-- it comes back to where discussing a few minutes ago. Our theory-- the co-authors' theory was it was just the lack of stress of being uninsured, that facing constant financial risk is depressing, and that basically, by relaxing that risk on people, we improve their mental health, which comes to these other questions about, what is insurance for? Contradicts, a bit, my earlier perspective-- it doesn't really. Actually, no, it's a contradict. I would argue it doesn't.

What it's saying is, that's a measure of the benefit of insuring-- the idea of insurance to protect against financial risk-- a measure of the value of that is how much better people's mental health was. Yeah.

AUDIENCE: [INAUDIBLE]

JON GRUBER: Adults. It was only expansion. For adults, it was only expansion for adults. Side note on that, side note of a side note, talking about the way health care's viewed in America. This study was very famous, got coverage in *The New York Times* and stuff. And they wrote the articles, and they said, study finds health insurance doesn't improve health. In the last sentence, they said, oh, yeah, depression went down 30%, which talks about the weak role mental health has in our society, relative to physical health.

And I think that's changing with your generation. There's a lot more attention to mental health than there was even 15 years ago when we did this study. But an interesting side note about the value of-- people's view of the value of mental and physical health. Anyway, this was a real shot across the bow because people said, wow, we have this whole literature saying, Medicaid improved health. What if it doesn't?

Then we ran another experiment called the Affordable Care Act, where we had some people getting health insurance because their states expanded, others not. OK. And what that study-- what they did in those studies is they took massive samples of individuals so they could find really precisely what effect that had. And they found huge positive effects on health, much like the previous literature, from very convincing methods.

Indeed, there was another randomized trial, which is really cool. Under the Affordable Care Act, which I'll talk about next time, there was an individual mandate. That individual mandate said you had to report on your taxes whether you were insured, and if you weren't, you paid a penalty.

Well, the IRS, after the first year-- the IRS is our tax system. After the first year of this program, decided people who pay the mandate penalty should remind them, hey, get health insurance, and you won't have to pay the penalty. Someone convinced them, some brilliant person convinced them to randomly remind people. So they randomly randomized, and some people got a reminder letter, and some didn't. I don't know how they got away with that. What they found was the people who got the reminder letter were much more likely to sign up for health insurance, and their health improved.

So here, we have a situation where we have this contradiction in the literature. I think the answer is pretty clear that the problem of the Oregon Health Insurance Experiment is it only followed people for about a year, and the samples were too small. Now, as a co-author, I'm not sure the lead authors would agree. I'm a junior co-author on that paper. I'm not sure they'd agree with my assessment of that.

But that would be my assessment of this debate, that, basically, we've pretty much sealed the deal, that Medicaid coverage is good for your health and that it probably improves your health cost-effectively. But it is an interesting study in how scientific consensus evolves. Questions about that. Yeah.

AUDIENCE: I remember, when I was younger, hearing about the Affordable Care Act, and some of the politics around it were such that what people hated the [INAUDIBLE].

JON GRUBER: Oh, come to the next lecture. We'll talk all about it. Believe me. I'll show you my scars.

[LAUGHTER]

That's what I want to say about Medicaid. Now I want to turn to the other big program, Medicare, which is insurance for the?

AUDIENCE: Elderly.

JON GRUBER: Elderly. All right, good. Remember, any time I can sneak up on you and ask you this question, I have the right, any time, to ask this question. OK, so how does Medicare work? Well, Medicare, unlike Medicaid, is a federal program, not a state program. It's a federal program. As I said, it's a program where if you've worked for at least 10 years paying in your Medicare taxes, you then, when you turn 65, become eligible for the Medicare program.

Or if you become disabled, after two years, you also become eligible for Medicare. So it's insurance for the elderly and the disabled. Elderly's a fine summary. I won't hit you with a disabled part. But for the elderly and disabled, people on disability insurance.

Now, how does Medicare look? Traditional Medicare looks very much like old-school fee-for-service-medicine. Basically, you get the insurance. The government's your insurer. You go to any doctor you want, and the government pays the Bills. And until the 1980s, that's basically how it worked. And we'll come back to what changed in a few minutes.

Now, Medicare, however, is really three different programs. There's part A, part B, and Part D. I'll come back later to part C. Why do we skip C? I'll come back to that. Part A is hospital care. That is what we pay for with our payroll tax. Our payroll tax goes into Medicare Part A trust fund. That pays for your hospital care.

Part B is Doctor care. Doctor care you actually have to sign up for. And, like, 97% of elders do. But basically, it's a program where the government provides and pays for your doctor care. That one, you don't pay any payroll tax, but you pay a premium that is 25% of the program costs. So that's more like the kind of insurance you have an employer. You pay a premium that's 25% of program costs. And that's part B. Part D is coverage for drugs, and I'll talk about that separately in a little bit.

Now, what this means is while Medicaid may be the best insurance money can't buy, Medicare's actually not that generous. 20 years ago, it was much less generous than the typical employer plan. Now it's probably equivalent to a typical employer plan.

This is shown in table 16-2. This compares Medicare and Medicaid in terms of what you have to pay. First, I have the eligibles. Talk about premiums. Well, for Medicaid, there's none. For Medicare, you have to pay for physician coverage, and you also have to pay for prescription drug coverage. That's variable. We'll come back to that. Deductibles and co-payments-- nothing in Medicaid. In Medicare, you have to pay a $1,484 deductible.

And then for hospitals-- for physicians, there's a $200 deductible. And this is important. A 20% uncapped coinsurance. This is worse than any other insurance program. Every other insurance program you sign up for has a maximum. They say, you have to pay out of pocket, but at some maximum, we'll stop you. Medicare does not. If you spend $100,000 on doctors, you owe $20,000. Uncapped-- and we'll come back to this, but it's a real weak feature of Medicare. Uncapped coinsurance system.

And Medicaid doesn't exclude anything. Medicare used to exclude prescription drugs. It used to exclude routine checkups. At least it wouldn't make it free. It excludes dental care, nursing home care, eyeglasses, hearing aids, et cetera.

And then, finally, reimbursement under Medicare is between private insurance and Medicaid. If Medicaid is, on average, less than half of private insurance, Medicare reimbursement's on the order of about 70% of private insurance. So that's basically how the program works.

Let's talk about prescription drugs. This is a fascinating debate, real-time-- at least in my life, real-time debate When Medicare was set up in 1965, it did not include drugs. That's because out-of-pocket drugs wasn't really a thing. It's like if you got drugs, you got them in the hospital. You took two aspirin and called them in the morning. It wasn't a thing.

But by the late 1990s, the typical elder was spending more on prescription drugs than the whole program cost in 1965. Prescription drugs had become a big deal, and there was an increasing awareness this is a hole in the nature of the Medicare program.

So basically, in George W Bush's first term, there was consensus that something should be done about this, but there was a vigorous disagreement-- it goes back to chapter 7-- between the two parties and how it should be done. Democrats want to do this new drug program like we do the rest of Medicare, a single-payer fee-for-service system.

Republicans said, no, we should have a privately provided but federally paid system. We should have private insurers provide the prescription drug benefit, competing with each other, and the federal government will pay in the back end to those insurers. So they said it'll be like other insurance, where the contractor's the federal government, but it'll be private insurers delivering it.

And you see arguments on both sides. On the one side, the Republican argument makes a lot of sense. Competition works in many contexts. The idea is to have these competitive insurers, and they can innovate in things like that. On the other hand, what is innovation in insurance? Largely, it's innovation about how to keep out sick people. I mean, that's how insurers really innovate, is by trying to decide how to keep sick people out. So it's not quite clear why you want innovation.

Now, I think the counterargument to that, which is valid-- which is that-- so the Republican counterargument is, actually, a lot of innovation is in negotiations with the drug companies, that, basically, is innovation in how you decide to get the prices down on those drugs, to which the Democrats responded, well, the best way to get prices down is have one giant payer who just screws the pharmaceutical companies, and that's what Medicare would do.

Vigorous debate between these two things, and Republicans won. And we set up this program where basically people get their Medicare prescription drug benefit from a private insurer that's largely paid by the federal government. People pay a premium, which is a small fraction of the cost. The federal government pays the rest. So that's how it ended up.

How did it do? Well, basically, it was much cheaper than we expected. The early evidence on part D was quite good in terms of relative to what we thought the program would cost. These private insurance companies really got the cost down. Did they get them down more than the government could have, negotiating? Not clear. And we'll come back to that next time when we talk about the Inflation Reduction Act. But certainly, it was less than we expected. They certainly did a good job of negotiating these prices down.

At the same time, we had the problem that people were confused by this array of choice and did not do a very good job choosing their plans. That's something I've done a lot of research on. We've shown that the typical senior-- we looked at-- all seniors-- we looked at the plans they had available and what they chose, and we estimated what their cost would be under the alternative.

And we found about 12% of seniors chose the lowest-cost plan. And the typical senior could have saved on the order of $600 if they chose better. And basically, it's a very confusing choice. So the downside of the choice was seniors were not always choosing the best plan for them. Yeah.

AUDIENCE: Would there be a benefit to having the government, right on the end of that, and say, OK, you competed to create these different plans, and now, here's a smaller menu of plans for senior citizens [INAUDIBLE]?

JON GRUBER: We'll come back to that. Absolutely. Basically, could the government play with the choice architecture in a way that you have the best of both worlds? And we'll come back to that. OK. What was most funky about Part D was the way they set up the cost sharing. Let me explain how it worked. The numbers aren't quite precise, and they're out of date, but here's how it worked.

On this axis, we have how much you spend on drugs. And on this axis, we have your co-insurance rate, what percent of the cost of drugs you pay. Well, there was a $250 deductible. That meant for the first $250, you paid 100% Then after $250, it fell to 25%. So at that point, you paid 25% of the cost of the drug. The insurer paid 75%, until you got to-- let me get the number-- until you got to $2,500 of spending. At that point, it went back to you paying 100% until you got to $5,100, when it went down to 5%.

Now, I hope you can see this does not make sense. It is hard to think of a chapter 12 justification for a structure like this because remember, the whole idea is we're trying to combat moral hazard versus consumption smoothing. Well, these people-- they're spending a lot on drugs. They need the consumption-- why do these people need better consumption than these people? The moral hazard's probably less because you're taking expensive drugs, and you probably really need them. And the consumption smoothing is probably higher because this is a lot of money to spend. So this is just clearly wrong-headed.

Why did they do it? Why did they set up the structure this way. Chapter 9 answer. Give you a hint. It's a chapter 9 answer for why they set up the structure this way. Yeah.

AUDIENCE: [INAUDIBLE] drop in that range, where you have the highest co-pay [INAUDIBLE] and the pharmaceutical companies are lobbying for that.

JON GRUBER: Most drugs are here or here?

AUDIENCE: Yeah, the one--

JON GRUBER: Here.

AUDIENCE: Yeah.

JON GRUBER: Yeah, but the pharmaceutical companies get the same amount of money either way. It's just what people pay. So that's not quite it. What else?

AUDIENCE: Most voters said the drugs [INAUDIBLE].

JON GRUBER: Yeah. The risk is here. The voters are here. Or the voters are really here, in this flat part. So the idea was instead of designing insurance to minimize risk, they designed insurance to maximize votes, which is-- if they'd done the right thing, which said, look, we're going to have a 25% coinsurance to say $4,000, and then we'll get rid of it, all these others would be like, no, no, no, no, I don't-- or if they had said, we'll have a 30% coinsurance or something, then get rid of it, people would be like, oh no, I'm so upset.

This way, we're like, OK, for most voters, we'll keep them protected. These guys get screwed, but there's where the risk is, but not many voters. So it's a classic political economy trade off. Fortunately, the Affordable Care Act fixed this, changed this to 25% And now there's now a cap at $2,000, where it goes to 0. So the new structure, starting next year-- the Affordable Care Act made this 25% to here. You don't need to know this. It's just for edification. Now the new structure is 25% till $2,000 and then you're capped. Yeah.

AUDIENCE: That latter change happened when?

JON GRUBER: That's part of the Inflation Reduction Act. Takes place in January. So that's an interesting-- just interesting political economy of how these things happen. Now, with Medicare-- with Medicaid, I talked about the benefits and not the costs. With Medicare, I'm going to flip the tables. Yeah.

AUDIENCE: You said it takes place in January. Inflation Reduction Act was passed, what, 2023?

JON GRUBER: 2022, I think. Yeah.

AUDIENCE: Why wait two years?

JON GRUBER: That's a good question. I mean you need to wait a little while because companies need to-- that's a big change for insurers and how they structure the nature of their insurance. [INAUDIBLE] they have things like call formularies, about which drugs are where. So you need to give them a little while. It's interesting. I'll talk about the Affordable Care Act and why the fundamental mistake was waiting so long. More time allows for better design, but it has costs as well. We'll come back to that.

So with Medicaid, I talked about trying to measure the benefits that ignore the costs. With Medicare, let's ignore the benefits. It's good people have health insurance. Let's focus on the costs. The costs here are interesting because this-- remember in the first lecture, I talked about CBO, the Congressional Budget Office, and how they're the only thing keeping our democracy safe because they're the people who are truth tellers in Washington.

Well, it's a fascinating example that I like to use CBO. Medicare was developed by Lyndon Johnson before CBO. And he basically lied. He basically had his advisors say what Medicare would cost, and they were just way off. Now, were advisors just wrong-headed? I think probably not. I think they just understated it. But Medicare grew exponentially.

So basically, Medicare started out-- it was a $64-million program in 1966. 14 years later, it was a $32-billion program. It had gone from $64 million to $32 billion in 14 years and was growing exponentially. And Congress was like, wait a second. That didn't quite work out like we thought. We need to control costs.

So Congress came up with two different approaches to controlling costs, which are fascinating to study. The first approach-- once again, always, I use the term, fascinating, loosely. My family makes fun of me for this. But once again, you have to listen. The first approach was to say, hey, let's move away from fee-for-service towards a prospective managed care-- not managed care, but a prospective reimbursement system. In particular, they set up what was called the prospective payment system for hospitals in 1980. This was very early, very innovative.

How did the system work? The way it works-- they said, look, we're not just going to pay you whatever you bill. We're going to do the following thing. We're going to pay you based on how sick people are when they come to the hospital. We'll pay you a fixed amount. So someone comes in with this level of sickness, we'll pay you this much. This level of sickness, we'll pay you this much. And then you do whatever the hell you want. We're not paying you anymore. So it's prospective reimbursement in hospitals. Instead of hospitals billing for every test, hospitals billed based on how sick the people are coming in.

Now, there are roughly 10,000 different diagnoses, and they didn't want to deal with different prices, so they set up what was called diagnosis-related groups, 457 DRGs. These are basically like hysterectomy, not hysterectomy, depending on a woman's age or various things, or broken arm, not where-- which part of the arm is broken, et cetera. Heart attack-- there's four or five different ones for heart attack, where there's hundreds of different diagnoses for heart attack. So basically, they said we're going to have a fixed amount, we pay per DRG. So it's a true prospective reimbursement system. We are going to pay a fixed amount per DRG.

Now, this is a great experiment. What effect did it have? You had, basically, something where we're moving from retrospective to prospective reimbursement, but without all the other managed care features. This is just a pure reimbursement change. So it's not tangled up in all the things like independent practice organization stuff. It's the same doctors. You're just paying them different. So it's a great experiment.

What did we find? What we found was more evidence for the flat of the curve, that basically, what we found was there was an enormous reduction overnight in how the elderly were treated. So the average hospital stay for an elderly person fell from 10 days to eight days within, like, two years. That's amazing. Basically, we saw a huge drop in the intensity of hospital care with no evidence of adverse effects on elder outcomes.

Classic flat of the curve, that these hospitals were delivering excess care into the fee-for-service system. You move to a prospective payment. They deliver less, but not so much less the patients are worse off, just enough less. They don't quite make as much money.

I did skip one thing that I want to come back to for one second, which is what I didn't mention is you could have asked me-- you could have said, wait a second, John. I'm confused by something. The RAND Health Insurance Experiment showed that the generosity of insurance didn't seem to matter for people's health. But you've just argued passionately that getting Medicaid matters for people's health. How is that consistent?

And I would argue those two put together exactly illustrate the curve, which is getting people from having no coverage to some coverage-- it matters for the health, but how generous that coverage is doesn't matter nearly as much. So those two pieces put together are really what traces out this curve I keep coming back to, that it matters that you get some health care. It might not matter as much how generous that health care is. Just coming back to that before I forget.

Now we're back on Medicare prospective payment. They put in prospective payment. It worked. Lowered health care costs. Health care outcomes weren't any worse for a while. Then it stopped working. Hospital costs grew slowly for a while and then started growing again, very rapidly, because basically, hospitals figured out multiple different ways around this system.

You guys are smart. Let's say you're running a profit-maximizing hospital. I put in the DRG system. How would you get around it to get back to making more money? What could you do? Doctors aren't allowed to answer. What would you do? Come on. You guys are smart. I know you're not evil, but imagine you were. Yeah.

AUDIENCE: Change the diagnosis.

JON GRUBER: You could change how people are diagnosed. If you look at the data, America's elders got incredibly sick overnight. There was a big jump in the diagnosis. Because you're paid based on diagnosis, they started diagnosing people sicker. Now, you can't diagnose a broken arm as a heart attack. But you can diagnose someone who came up with the broken arm and a heart attack-- you can focus on the heart attack part and not the broken arm part, because the heart attack part gets paid more.

There's the general, gee, we'll sort of on the margin code a little more complicated, and then there's the extreme examples, like in 1995, Cedars-Sinai Medical Center in Miami-- once again, it's always Florida. There were two DRGs, one for respiratory illness with a complex respiratory infection and one with pneumonia with complications. So I have a respiratory illness-- pneumonia's a respiratory illness. I could either call it, pneumonia with complications, where I got paid $1,700, or respiratory illness with complex-- complex respiratory illness, for which I got $5,700.

Well, at Jackson Memorial, which was a nonprofit hospital nearby, 28% of the cases were coded as the complex. In the for-profit Cedars Medical Center, 93% were coded as complex. Now, maybe they got a little more complex cases, but it's hard to imagine it was that different. And indeed, a number of hospitals, actually, were subject to huge lawsuits for clearly abusing the system.

But to be fair, the system was designed to be abused. What do I mean by that? What I mean by that is, literally, any-- it's designed to be abused in the sense that it was partially retrospective. What do I mean by that? What I mean by that is, for example, if someone comes in with a heart attack, you could code them as cardiac arrest unexplained and get $5,000. Or you could do a coronary bypass, which is a different DRG-- heart attack with a coronary bypass got $33,000. Well, that sounds a lot like fee-for-service medicine to me. You do something, and you get paid more. That's not perspective reimbursement anymore.

So part of the problem was they didn't really commit to true prospective reimbursement. They said, well, gee, we'll actually pay some more if you do some of this stuff. So that was part of the problem, that it was still a fee-for-service system.

Another problem was it paid hospitals per admission. So what do you do? Well, Paul comes in. Don't worry, Paul, you're not actually sick. I'm just using your name. Paul comes in-- he looks shocked. Paul comes in, and we treat him. And we're like, Paul could use a couple more days. We're going to discharge him and readmit him and get paid twice. So hospitals started doing a lot of excessive discharge and readmission. Indeed, part of the Affordable Care Act I'll talk about next time was actually a policy to penalize hospitals for the success of readmission. So that's another thing you could do.

Another thing you could do is you could recognize that patients get treated in many locations, only some of which were reimbursed by PPS and some of which were reimbursed fee-for-service. So for example, if you break your hip, you go from-- you go to an acute-care hospital to a rehab hospital. You get your surgery at the acute-care hospital. They keep you for some amount of time. Then they ship you off to the rehab hospital, where you get rehabbed.

The acute-care hospital is reimbursed by PPS. The rehab hospital is still fee-for-service. So what do they do? They kick people, real quick, out of the acute-care hospital, put them in rehab, and they paid-- so they save money. Our acute-care hospitals went down, but our rehab hospital bills went up.

So basically, hospitals became very good at figuring out ways to game the system. What I talk about in the book is, basically, the difficulty of partial reform. It's like squeezing a-- squeezing a pillow. You squeeze the middle, and it comes out the sides, that basically, it's very hard-- when you have underpaid, overworked government regulators and overpaid, under-worked private executives--

[LAUGHTER]

--the private executives are going to win. And basically, the trick is whenever you try to play whack-a-mole, you're always going to be behind. It doesn't mean it's not worth doing. Even with all these changes, hospital costs still grew more slowly after PPS than they did before. It's just they slowed a lot, then sped back up, but never as fast as they were before.

The problem is people take these lessons as nihilistic like, oh, my god, we shouldn't have done anything. That's not the answer. We were still controlling health care costs better with this system than we were before we had the system. It just had a number of flaws because of its-- so we've tried to deal with it. So what do we do? We've whacked moles.

We've put in a readmission penalty. I'll talk about that next time, to try to lower costs. We've moved the whole system to PPS, so now you can't game the system by moving someone to rehab because the rehab's on PPS, too. So we've taken steps to try to address some of these holes, but it's never going to be perfect. Yeah.

AUDIENCE: So the heart-type example-- does that create an incentive for the hospital to give a coronary bypass?

JON GRUBER: Well, certainly no more than they had before because they always got paid more. It just didn't decrease the incentive. Basically, it used to be you'd bill more for it. Now you get a higher DRG for it. It's the same thing. So it didn't decrease the incentive. Yeah.

AUDIENCE: Going back to what you argued how [INAUDIBLE] before or after, I guess that's much harder than just looking at general health.

JON GRUBER: Oh, excellent. Excellent question. So how do you do the empirical work here? Great question. Two ways. One is that PPS was phased in different parts. It was phased in over time. And the rate at which hospitals got phased in differed based on what their costs were initially. So you have a diff-in-diff based on at what point hospitals were subject to PPS. It was over several years. You also had the fact that some states already had a system like PPS, so they were exempt from the PPS reform, so you have a state difference-in-difference.

You can also do things like-- if you look at-- last thing-- if you look at figure 16-2, what happened was-- and this is just a national change. It used to be that at long-term care hospitals, basically, they would keep patients a long time. And they were worried they were overpaying these hospitals. They put in a policy, which said-- they were worried that people were abusing long-term care hospitals when they didn't need to be there. Said, we're going to pay less for the first 29 days. Only once you've been there 30 days will we pay more.

Look what happened. Afterwards, there was a huge increase in people staying 30 days because that's when the reimbursement went up. It's a national change, but it's pretty obvious something like that's going on. So you either look for sharp event studies like that, or you try to find control groups. Great question. Let's stop there.