Lecture 10: Health Insurance

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MOTIVATION

Despite the huge benefits reaped from the U.S. health care system, all is not completely well: (a) US health care is very expensive (17% of GDP relative to 9% in other OECD countries), (b) growing too fast, (c) significant fraction of population is uninsured
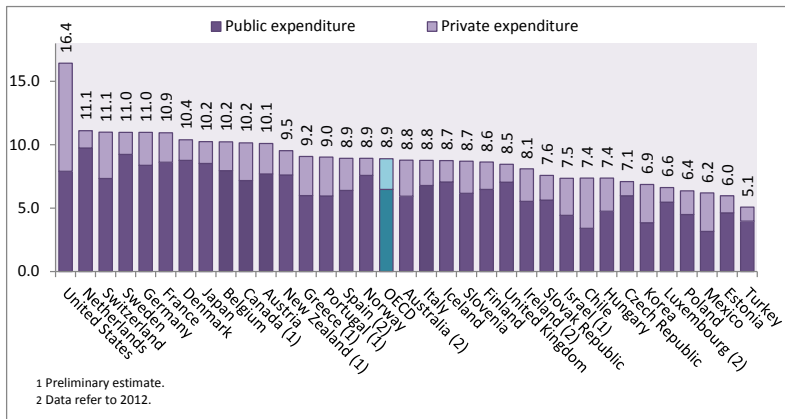
There are enormous disparities in medical outcomes across demographic groups in the US

Before Obamacare, the United States was the only major industrialized nation that did not provide universal access to health care for its citizens

Recent Obamacare law is reducing drastically the number of uninsured from 50m (in 2013) to 25m (in 2017+)

Figure 2. Health spending (excluding investment) as a share of GDP, OECD countries, 2013

Legend: Public expenditure, Private expenditure

Values (left to right):
- United States: 16.4
- Netherlands: 11.1
- Switzerland: 11.1
- Sweden: 11.0
- Germany: 11.0
- France: 10.9
- Denmark: 10.4
- Japan: 10.2
- Belgium: 10.2
- Canada: 10.2
- Austria (1): 10.1
- New Zealand: 9.5
- Greece (1): 9.2
- Portugal (1): 9.0
- Spain (1): 8.9
- Norway (1): 8.9
- OECD: 8.9
- Australia: 8.8
- Italy: 8.8
- Iceland (2): 8.7
- Slovenia: 8.7
- Finland: 8.6
- United Kingdom: 8.5
- Ireland (2): 8.1
- Slovak Republic: 7.6
- Israel (1): 7.5
- Chile (1): 7.4
- Hungary: 7.4
- Czech Republic: 7.1
- Korea: 6.9
- Luxembourg: 6.6
- Poland: 6.4
- Mexico (2): 6.2
- Estonia: 6.0
- Turkey: 5.1

1 Preliminary estimate.
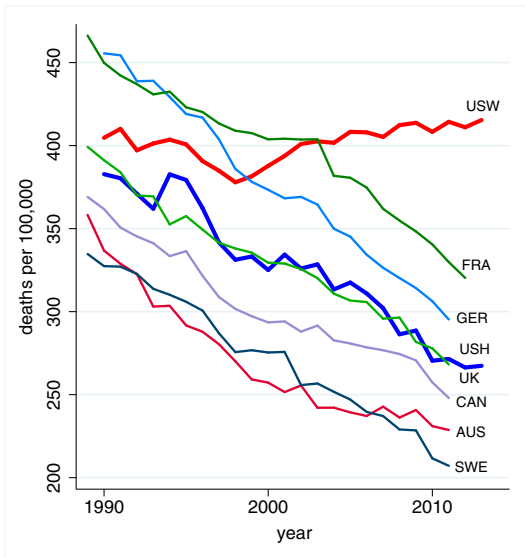2 Data refer to 2012.

Source: OECD Health Statistics 2015

Fig. 1. All-cause mortality, ages 45–54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE). Source: Case and Deaton (2015)

UNIVERSAL HEALTH INSURANCE

All OECD countries (except the US) provide universal health care insurance funded by taxation:

Individuals who get sick can have health care paid for by the government

Government either directly controls doctors/hospitals (like National Health Service in the UK) or government reimburses private health care providers (like in France)

Government controls costs and limits health-care over-consumption through:

1) Regulation (govt picks allowed treatments based on cost effectiveness, bargains for prices, rations care)

2) Patient co-payments (patients share part of the cost)

US HEALTH INSURANCE

US has a mix of public and private insurance: As of 2015

1) Government provided insurance [35% of population]

(a) Medicare for the elderly (65+) = 14% of pop
(b) Medicaid for the poor = 20% of pop
(c) Other (mostly veterans benefits) = 2% of pop

2) Privately provided insurance [55% of population]

(a) Employer provided health insurance = 49%
(b) Individual purchases (mostly Obamacare exchanges) = 7%
3) Uninsured [10% of pop.] (17-18% before Obamacare)

WHY EMPLOYERS PROVIDE PRIVATE INSURANCE

1) risk pooling: The goal of all insurers is to create *large insurance pools with a predictable distribution of medical risk.*

2) tax incentive: employer provided health insurance is a non-taxable form of compensation for employees (not subject to payroll taxes or individual income tax)

⇒ Fiscally advantageous to get insurance through employer (non-taxable) than to purchase it directly as an individual (with after-tax income)

NONGROUP INSURANCE

Nongroup direct insurance market: The market through which individuals or families buy insurance directly rather than through a group, such as the workplace.

The nongroup insurance market was not a well-functioning market before Obamacare

Those in the worst health (pre-existing conditions) were often unable to obtain coverage (or obtain it only at an incredibly high price)

Even without pre-existing conditions, there was **adverse selection**

Obamacare exchanges are changing drastically the nongroup market by forbidding pricing/discrimination based on preexisting conditions and mandating health insurance

MEDICARE

Started in 1965 as a universal health insurance system for the elderly and nonelderly on disability insurance.

Federal program that provides health insurance to all people over age 65 or disabled

Every citizen who has worked for 10 years (or their spouse) is eligible

Financed with an uncapped payroll tax totaling 2.9%

Physician reimbursement fairly generous (but not as high as private insurance)

MEDICAID

Provides health care for the poor (means-tested benefit)

Financed from general revenues

Targets welfare recipients, low income kids and elderly (for non-Medicare costs such as long-term care)

70% of recipients are mothers/kids but 66% of expenditure goes to long-term care for elderly/disabled.

Doctor reimbursement low $\Rightarrow$ some docs refuse Medicaid

Big variation across states in Medicaid generosity (costs are shared between state/feds)

Program eligibility criteria have been expanded over time (higher incomes allowed): Obamacare substantially expands Medicaid to reduce the fraction uninsured [but not all states do it]

16.3

The Medicare Program

The largest public health insurance program in the United States is Medicare.

■ TABLE **16–2**

Medicaid and Medicare

	Medicaid	Medicare
Eligibles	Families on welfare	Retirees and spouses 65 and older
	Low-income children, pregnant women	Certain disabled individuals under 65
	Low-income elderly, disabled	People with kidney failure (requiring dialysis or transplant)
Premiums	None	Hospital coverage: none
		Physician coverage: $66.60 per month
		Prescription drug coverage: Variable
Deductibles/copayments	None (or very small)	Hospital coverage: $1,068 deductible for first 60 days
		Physician coverage: $135 deductible, 20% coinsurance
		Prescription drug coverage: Variable
Services excluded	None (or very minor)	Prescription drugs (until 2006)
		Routine checkups, dental care, nursing home care, eyeglasses, hearing aids, immunization shots
Provider reimbursement	Very low	Moderate (but falling)

Medicaid provides health insurance for low-income individuals, covering a wide range of health services at little cost to those individuals. Medicare provides health insurance for those age 65 and over, covering many, though not all, health services at some cost to those individuals.

OBAMACARE (AFFORDABLE CARE ACT, ACA)

Three tier system starts in 2014

1) Bans pre-existing conditions exclusion, health-based pricing

2) Mandate: forces individuals (and large employers with 50+ employees starting in 2015/6) to buy health insurance [else they pay a tax]

3) Free/subsidized insurance for low-income families: (a) Medicaid expansion up to 138% of poverty line and (b) subsidized health insurance in Obamacare exchanges up to 400% of poverty line [graph]

Funded with surtax on rich, insurance and health providers, mandate tax (very progressive)

Starts trying to control costs [indeed costs increases have slowed down in recent years]

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ACA Subsidy by Income and Age
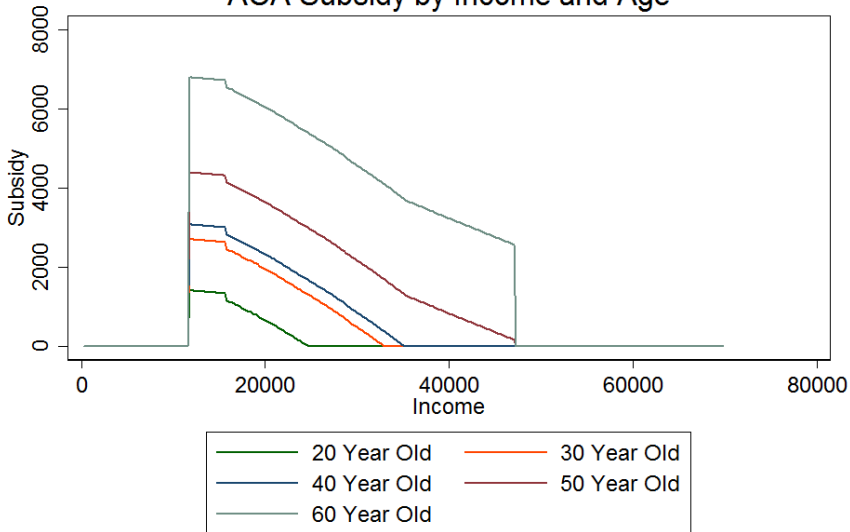
Note: Subsidy calculated for single person in 2015 for all scenarios.

## LEGAL CHALLENGES TO OBAMACARE

1) Is the mandate constitutional? [July 2012]

Ruling: yes, but Feds cannot force States to expand Medicaid ⇒ Many
states (including TX, FL) decided to opt-out of the Medicaid expansion
[even though Fed was paying 90%]

Consequence: There is a coverage gap in many States because people
below 100% of poverty cannot access subsidized Obamacare exchanges
[States seem to be moving to accept Medicaid expansion]

2) Can the Feds set up exchanges if states don't do it themselves? [Ruling:
yes, July 2015]

State Medicaid Expansion Decisions

- Expanded on Jan 1, 2014
- Expanded after Jan 1, 2014
- Did not Expand
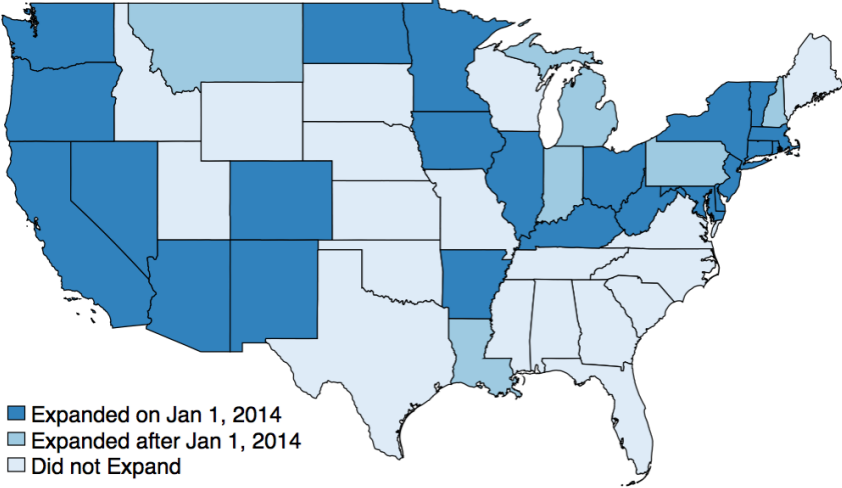
THE UNINSURED

Fraction of individuals uninsured should fall by 50% with Obamacare [from 1/6 of population in 2013 down to 1/12 eventually]. Remaining uninsured:

1) Undocumented immigrants (no access to Medicaid, Obamacare subsidized exchanges) $\simeq$ 10m

2) Low income people who don't qualify for Medicaid and Obamacare insurance subsidies in states that did not expand Medicaid [possible that more states with expand in 2017+]

3) People who did not sign up for Obamacare exchange (and will pay the fine), poor people who qualify for Medicaid but haven't taken up benefits
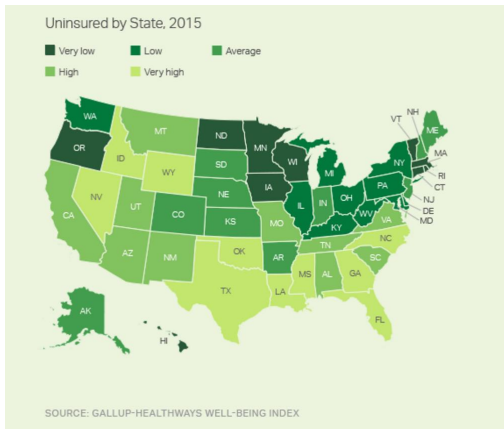
Percentage of U.S. Adults Without Health Insurance, 2008-2016

■ % Uninsured

14.6
15.4
16.1
16.2
16.4
16.6
16.1
17.4
17.5
17.1
16.3
17.1
18
17.1
15.6
13.4
12.9
11.9
11.4
11.9
11
10.9
10.9

20

15

10

5

Q4 2008   Q4 2009   Q4 2010   Q4 2011   Q4 2012   Q4 2013   Q4 2014   Q4 2015   Q4 2016

Coverage Gains Vary by State

Uninsured by State, 2015

Legend: Very low | Low | Average | High | Very high

SOURCE: GALLUP-HEALTHWAYS WELL-BEING INDEX

State	% Uninsured		Expanded Medicaid
	2013	2015	
California	21.6	11.8	Yes
Colorado	17.0	10.3	Yes
Florida	22.1	15.7	No
Illinois	15.5	8.7	Yes
Kentucky	20.4	7.5	Yes
Massachusetts	4.9	3.5	Yes
New York	12.6	8.6	Yes
Oregon	19.4	7.3	Yes
Texas	27.0	22.3	No
Virginia	13.3	12.6	No

Is Universal Health Care Desirable?

People face difference health risks (pre-existing conditions) $\Rightarrow$ Those facing high health risks face very high insurance costs in private market

Should the government insure people for health risks? Yes if health risks outside people's control (age, genetics). Not necessarily if health risks due to choices (diet, exercise)

Virtually all OECD countries answer yes and provide universal health care

Not providing universal health care creates another big issue: **adverse selection** if private insurers cannot observe risks or cannot charge based on risks $\Rightarrow$ Even those with low risks cannot get actuarially fair insurance

In all cases (private and public), health insurance needs to deal with moral hazard (over-provision, over-consumption)

Optimal Health Insurance: Consumer Side

As with other insurance, optimal generosity determined by the trade off between consumption-smoothing benefit and moral hazard cost.

Consumption when sick $= c_s < c_h =$ consumption when healthy

Insurance raises c_s and lowers $c_h \Rightarrow$ higher expected utility if risk averse.

Moral hazard: overconsumption of healthcare because insured individual pays only a fraction of health care costs when he/she is sick. Fraction paid by individual is called the **co-payment**

Moral Hazard Costs of Health Insurance for Patients
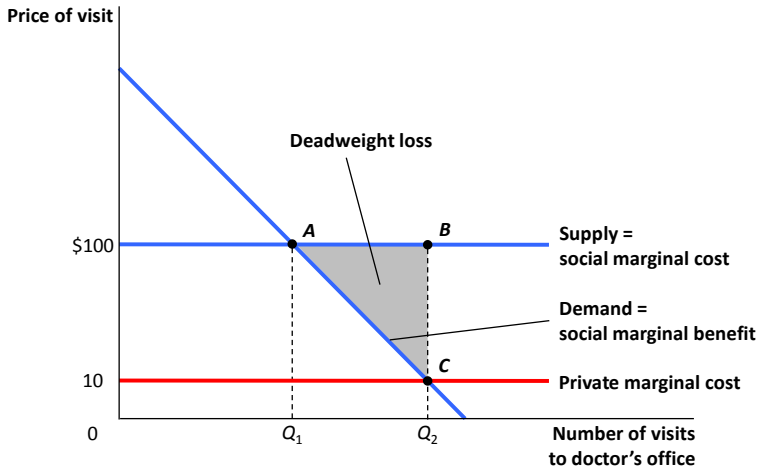
How Elastic Is the Demand for Medical Care?
The RAND Health Insurance Experiment

The best evidence on the elasticity of demand for medical care comes from one of the most ambitious social experiments in U.S. history: the RAND Health Insurance Experiment (HIE) in late 1970s

$150m expenditure involving 6000 people tracked over 3 years

Random assignment of health plans with different co-payment parameters: Copayment rates from 0% to 95%.

All families given $1000 to participate, so no one was made worse off from the experiment.

The RAND Health Insurance Experiment: Results

Medical care demand is somewhat price sensitive: individuals who were in the free care plan used 46% more care than those paying 95% of their medical costs.

Overall, 10% rise in the price of medical care to individuals $\Rightarrow$ use 2% less care (elasticity = .2). Medical utilization not very sensitive to price but distortion still large due to very low co-payment rates in most insurance programs

Those who used more health care due to the lower price did not, on average, see a significant improvement in their health.

For those who are chronically ill and don't have sufficient income to easily cover co-payments, there was some deterioration in health.

Oregon Medicaid Health Insurance Experiment

• In 2008, Oregon had a limited Medicaid budget $\Rightarrow$ used lottery to select individuals on waitlist to be given a chance to apply for Medicaid insurance coverage

• 30,000 "lottery winners" (treatment group) out of 90,000 participants (lottery losers are control group)

Not all winners received coverage. Some non-winners later received insurance on their own.

But it is still the case that winning the lottery increases probability of having health insurance by 29 percentage points

• Finkelstein et al. (2012) use lottery as instrument to estimate causal effect of insurance coverage itself

Oregon Medicaid Health Insurance Experiment

Two way to report the results:

ITT (intention to treat): just compare winners and losers

LATE (local average treatment effect): Inflate estimates by 1/[difference in fraction insured between winners and losers]=1/.29=3.5

Oregon Medicaid Health Insurance Experiment

• Data sources: admin data from hospitals, credit reporting data, and survey responses regarding utilization, health, and financial outcomes

• Key results: winning the Medicaid lottery leads to:

1) higher health care utilization (including primary and preventive care as well as hospitalizations)

2) lower out-of-pocket medical expenditures and medical debt (including fewer bills sent to collection agencies for unpaid debt)

3) better self-reported physical and mental health

Table V: Health Care Utilization (Survey Data)

	Extensive Margin (Any)				Total Utilization (Number)			
	Control Mean	ITT	LATE	p-values	Control Mean	ITT	LATE	p-values
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Prescription drugs currently	0.637	0.025	0.088	[0.002]	2.318	0.100	0.347	[0.049]
	(0.481)	(0.0083)	(0.029)	{0.005}	(2.878)	(0.051)	(0.176)	{0.137}
Outpatient visits last six months	0.574	0.062	0.212	[<0.0001]	1.914	0.314	1.083	[<0.0001]
	(0.494)	(0.0074)	(0.025)	{<0.0001}	(3.087)	(0.054)	(0.182)	{<0.0001}
ER visits last six months	0.261	0.0065	0.022	[0.335]	0.47	0.0074	0.026	[0.645]
	(0.439)	(0.0067)	(0.023)	{0.547}	(1.037)	(0.016)	(0.056)	{0.643}
Inpatient Hospital admissions last six months	0.072	0.0022	0.0077	[0.572]	0.097	0.0062	0.021	[0.311]
	(0.259)	(0.0040)	(0.014)	{0.570}	(0.4)	(0.0062)	(0.021)	{0.510}
Standardized treatment effect		0.050	0.173	[<0.0001]		0.040	0.137	[0.0003]
		(0.011)	(0.036)			(0.011)	(0.038)	
Annual spending [a]					3,156	226	778	[0.037]
						(108)	(371)	

Source: Finkelstein et al. 2012

Table VIII: Financial Strain (Survey Data)

	Control Mean	ITT	LATE	p-values
	(1)	(2)	(3)	(4)
Any out of pocket medical expenses, last six months	0.555	-0.058	-0.200	[<0.0001]
	(0.497)	(0.0077)	(0.026)	{<0.0001}
Owe money for medical expenses currently	0.597	-0.052	-0.180	[<0.0001]
	(0.491)	(0.0076)	(0.026)	{<0.0001}
Borrowed money or skipped other bills to pay medical bills, last six	0.364	-0.045	-0.154	[<0.0001]
	(0.481)	(0.0073)	(0.025)	{<0.0001}
Refused treatment bc of medical debt, last six months	0.081	-0.011	-0.036	[0.01]
	(0.273)	(0.0041)	(0.014)	{0.01}
Standardized treatment effect		-0.089	-0.305	[<0.0001]
		(0.010)	(0.035)	

Source: Finkelstein et al. 2012

Table IX: Health

	Control Mean (1)	ITT (2)	LATE (3)	p-values (4)
Panel A: Administrative data				
Alive	0.992 (0.092)	0.00032 (0.00068)	0.0013 (0.0027)	[0.638]
Panel B: Survey Data				
Self reported health good / very good / excellent (not fair or poor)	0.548 (0.498)	0.039 (0.0076)	0.133 (0.026)	[<0.0001] {<0.0001}
Self reported health not poor (fair, good, very good, or excellent)	0.86 (0.347)	0.029 (0.0051)	0.099 (0.018)	[<0.0001] {<0.0001}
Health about the same or gotten better over last six months	0.714 (0.452)	0.033 (0.0067)	0.113 (0.023)	[<0.0001] {<0.0001}
# of days physical health good, past 30 days*	21.862 (10.384)	0.381 (0.162)	1.317 (0.563)	[0.019] {0.018}
# days poor physical or mental health did not impair usual activity, past 30 days*	20.329 (10.939)	0.459 (0.175)	1.585 (0.606)	[0.009] {0.015}
# of days mental health good, past 30 days*	18.738 (11.445)	0.603 (0.184)	2.082 (0.64)	[0.001] {0.003}
Did not screen positive for depression, last two weeks	0.671 (0.470)	0.023 (0.0071)	0.078 (0.025)	[0.001] {0.003}
Standardized treatment effect		0.059 (0.011)	0.203 (0.039)	[<0.0001]

Source: Finkelstein et al. 2012

Table X: Potential Mechanisms for Improved Health (Survey Data)

	Control Mean	ITT	LATE	p-values
	(1)	(2)	(3)	(4)
Panel A: Access to care				
Have usual place of clinic-based care	0.499	0.099	0.339	[<0.0001]
	(0.500)	(0.0080)	(0.027)	{<0.0001}
Have personal doctor	0.490	0.081	0.280	[<0.0001]
	(0.500)	(0.0077)	(0.026)	{<0.0001}
Got all needed medical care, last six months	0.684	0.069	0.239	[<0.0001]
	(0.465)	(0.0063)	(0.022)	{<0.0001}
Got all needed drugs, last six months	0.765	0.056	0.195	[<0.0001]
	(0.424)	(0.0055)	(0.019)	{<0.0001}
Didn't use ER for non-emergency, last six months	0.916	-0.0011	-0.0037	[0.804]
	(0.278)	(0.0043)	(0.015)	{0.804}
Standardized treatment effect		0.128	0.440	[<0.0001]
		(0.0084)	(0.029)	

Source: Finkelstein et al. 2012

Consumption-Smoothing Benefits

Consumption-smoothing benefits bigger for large shocks

Some events, like a check-up, are minor and predictable

Others, like a heart attack, are expensive and unpredictable.

Insurance is much more valuable for expensive, unpredictable events

Small shocks lead to small fluctuations in marginal utility

Also less moral hazard for large, unpredictable shocks

$\Rightarrow$ Optimal policy: large deductibles and very generous coverage for "catastrophes"

But Obamacare exchanges experience shows that people dislike plans with high deductibles (such as \$3K/year) in part bc they don't have much control on health expenses

Brot-Goldberg et al. (2017) show that high deductible plan leads to large and likely inefficient cuts in health care utilization

Application: Medicare Prescription Drug Benefit

Starting in 2006, Medicare "Part D" covers drug expenses.

In return for a monthly premium, this program pays for

0% of the drug costs up to $250

75% of the costs for the next $2,250

0% of the costs for the next $3,600 ("donut hole")

95% of the costs above $5,100

Middle bracket with 75% refund: exactly opposite of optimal design!

Application: Medicare Prescription Drug Benefit (cont.)

Rationale: political. Help the most people in this way (but do not maximize expected welfare).

Obamacare eliminated the "donut hole"

Einav, Finkelstein, Schrimpf (2013) show that individuals bunch at kink where 75% subsidy stops $\Rightarrow$ Moral hazard response

Figure 2: Annual spending distribution (in 2008)
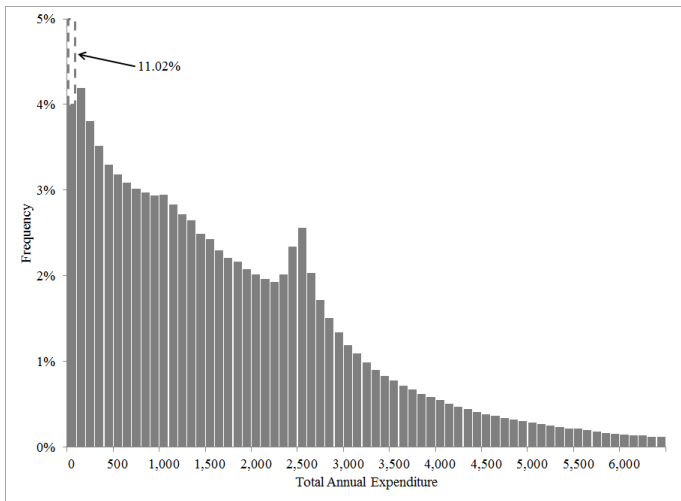
The figure displays the distribution of total annual prescription drug spending in 2008 for our baseline sample. Each bar represents the set of people that spent up to $100 above the value that is on the x-axis, so that the first bar represents individuals who spent less than $100 during the year, the second bar represents $100-200 spending, and so on. For visual clarity, we omit from the graph the 3% of the sample whose spending exceeds $6,500. The kink location (in 2008) is at $2,510. N =1,251,969.

Estimating Health Benefits

Another approach of evaluating benefits of a health insurance program:
look directly at health outcomes instead of consumption-smoothing benefit

How to implement this?

Simply comparing those enrolled in Medicaid to those not enrolled will suffer from
bias.

Factors such as income and health status will bias the results.

Series of studies by Currie and Gruber: use Medicaid expansions and
diff-in-diff strategy to evaluate value of programs

16.2

EVIDENCE: Using State Medicaid Expansions to Estimate Program Effects

Eligibility for all Children, by State		
Year	Missouri Eligibility	Michigan Eligibility
1982	12%	20%
2000	76%	34%
Eligibility for Children by age in Washington, D.C.		
Year	Age 13	Age 0
1982	18%	48%
2000	59%	56%

Effect of Medicaid Expansions on Health

Currie and Gruber find that these reductions in the number of uninsured had positive effects on health outcomes in pregnancies

1) Utilization of health services increased: Early prenatal care visits rose by more than 50%

2) Health care outcomes improved: Infant mortality declined by 8.5% due to the expansions in Medicaid for pregnant women.

⇒ Highly cost–effective policy.

Costs Per Life Saved of Various Regulations

Regulation concerning …	Year	Agency	Cost per life saved ($ millions)
Childproof lighters	1993	CPSC	$0.1
Food labeling	1993	FDA	0.4
Reflective devices for heavy trucks	1999	NHTSA	0.9
Medicaid pregnancy expansions	1996	Currie & Gruber	1.0
Children's sleepware flammability	1973	CPSC	2.2
Rear/up/should seatbelts in cars	1989	NHTSA	4.4
Asbestos	1972	OSHA	5.5
Value of statistical life			**7.0**
Benezene	1987	OSHA	22
Asbestos ban	1989	EPA	78
Cattle feed	1979	FDA	170
Solid waste disposal facilities	1991	EPA	100,000

Effect of Medicare on Health

Medicare becomes available when you turn 65 $\Rightarrow$ Can do a **regression discontinuity design** to see what happens when you cross age 65 threshold. Two recent papers use this strategy:

1) Card–Dobkin–Maestas "The Impact of Nearly Universal Insurance Coverage on Health Care Utilization and Health: Evidence from Medicare" AER 2008

Examines impacts across groups; with an interest in evaluating impacts on inequality in utilization

2) Card–Dobkin–Maestas "Does Medicare Save Lives?" QJE 2009

Examines impacts on outcomes (mortality following hospital admission)

Basic idea is to draw graphs of outcomes based on age for various groups

The discontinuity at 65 captures **short-term** changes in health care utilization and mortality from shift from < 65 to > 65
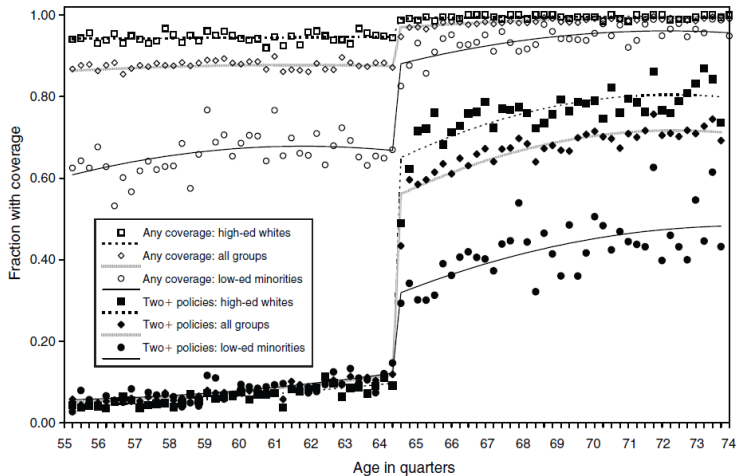
FIGURE 1. COVERAGE BY ANY INSURANCE AND BY TWO OR MORE POLICIES, BY AGE AND DEMOGRAPHIC GROUP

First stage: sharp increase in coverage; more for disadvantaged
(From NHIS; age measured in quarters) FIGURE 1

9

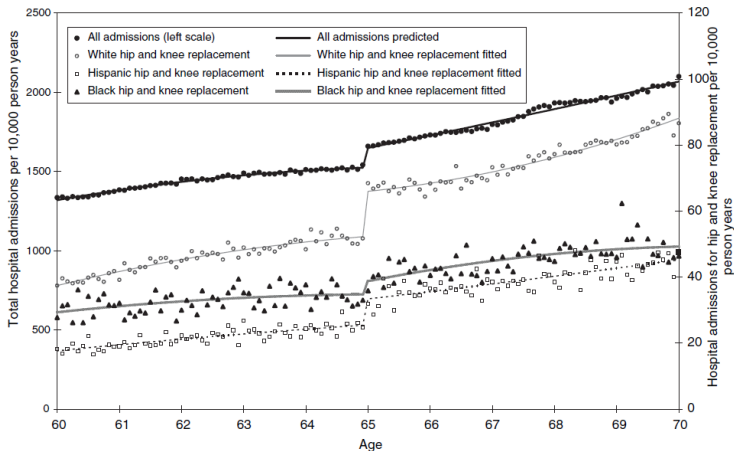Hospital discharge data (CA, FL, NY 1992-2002), ages 60-70

FIGURE 3. HOSPITAL ADMISSION RATES BY RACE/ETHNICITY

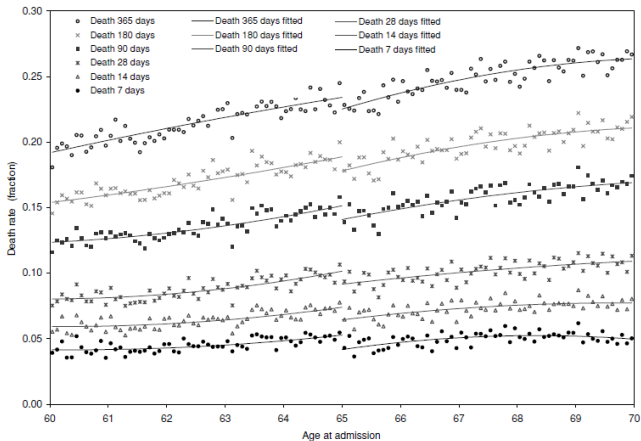Increase is driven by discretionary medical care, diagnostic heart treatments.

FIGURE VI
Patient Mortality Rates over Different Follow-Up Intervals

Nontrivial decrease in mortality.

Effects of Medicare on Health

1) Big increase in health insurance coverage, especially for disadvantaged groups

2) Big increase in health care utilization

3) Visible decrease in mortality after admission for conditions requiring Emergency Room (ER) immediate hospitalization (so that likelihood of going to hospital is the same before 65 and after 65)

$\Rightarrow$ Medicare health insurance does save lives

Effects of Insurance on Health Outcomes

Medicaid and Medicare results contrast with those of RAND experiment, which found no impact on health outcomes?

How to reconcile the two results?

1) The studies examine different parts of the "medical effectiveness curve."

2) Moving individuals from uninsured to having some insurance has an important positive effect on health

3) Adding to the generosity of current insurance, does not seem to cause significant changes on health

US health insurance system leaves many uninsured but provides overly generous care to the insured

15.2

The "Flat of the Curve"
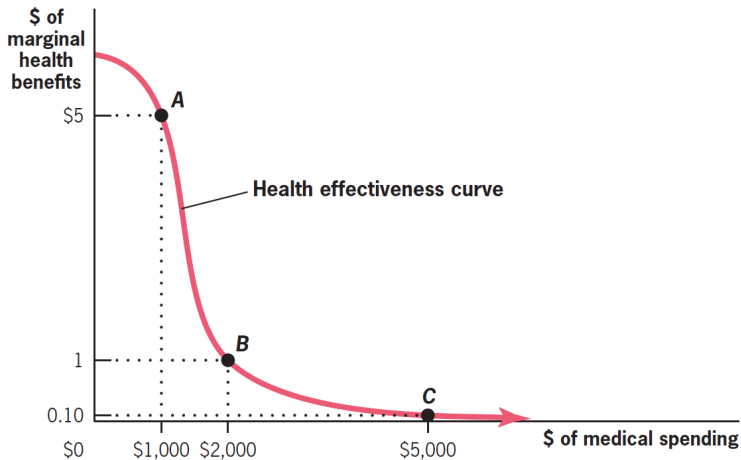
Optimal Health Insurance: Provider Side

Preceding analysis of optimal insurance assumes patient makes entire healthcare decision:

This assumed a passive doctor, in the sense that doctor provides whatever treatment patient requested

Clearly reality is closer to the opposite!

Incorporating supply side issues is critical in understanding health insurance

Question: choice of payment schemes for physician

Retrospective (fee-for-service) vs. prospective (diagnosis based fixed payments)

Optimal Health Insurance: Provider Side

Intuition: if patient doesn't choose level of care, healthcare may be inefficiently high

If physician is compensated for all costs $\Rightarrow$ it is in his interest to do lots of procedures (e.g. too many C-section births)

Optimal Health Insurance: Provider Side Model

Payment for physician services is $P = \alpha + \beta \cdot c$

α=fixed cost payment for a given **diagnosis**

β=payment for proportional costs c (tests, nurses)

Various methods of payment (α, β):

1. Fee-for-service $(\alpha = 0, \beta > 1)$: No fixed payment for practice, but insurance company pays full cost of all visits to doctor + a surcharge.

2. Diagnosis based payment $(\alpha > 0, \beta = 0)$: varying by type and # of patients but not services rendered

Optimal Health Insurance: Provider Side

General trend has been toward higher α, lower β

Private market has shifted from FFS to HMO (Health Maintenance Organizations) capitation schemes [where insurer pays a fixed amount per patient no matter what the health costs are].

Example, Kaiser receives a flat amount per person enrolled based on age/gender

Medicare/Medicaid shifted in 1980s to a prospective payment scheme.

Tradeoff: lower β provides incentives for doctors to provide less services. But they may provide too little!

$\Rightarrow$ Lower costs, but complaints of lower quality of care

Evidence: Payment Schemes and Physician Behavior

1) In 1983, Medicare moved from retrospective reimbursement to prospective reimbursement.

2) **Prospective payment system (PPS)** is Medicare's system for reimbursing hospitals based on nationally standardized payments for specific diagnoses.

All diagnoses for hospital admissions were grouped into Diagnosis Related Groups (DRGs).

Government reimbursed a fixed amount per DRG. More severe DRGs received higher reimbursement.

Evidence: Payment Schemes and Physician Behavior

Cutler (1993) finds that PPS led to:

1. A reduction in treatment intensity. For example, the average length of hospital stay for elderly patients fell by 1.3 days.

2. No adverse impact on patient outcomes despite the reduction in treatment intensity.

Evidence that doctors put some weight on profits

Suggests they are practicing "flat of the curve" medicine: too much treatment before.

3. Cost growth slowed dramatically in the five years after PPS but then accelerated again.

Technology Growth and Health Care Growth

1) Health care technology contributes to rising life expectancy

2) Many new technologies have modest health effects and are very costly and yet are adopted because Medicare/Private insurance accept any health effective treatment

⇒ fuels the development of new technologies, especially testing which leads to growing costs and over-treatment

3) Countries which are the most successful at containing costs choose to use only the cost effective new treatments: reduces costs while having very little effect on health outcomes

4) US health care system spends too much on the insured (where marginal value of care is small) and spends too little on the uninsured (where marginal value of care is high)

Key US health policy challenges is to: (a) cover more of the uninsured, (b) reduce non-cost effective health spending

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