

Impact of Premiums and Cost Sharing on Take Up Rates and Use of Services

Task Force on Covering the Uninsured
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Outline

- Concepts, definitions
- Effect of varying plan design
- Some sample effects

Big Idea

- Central tenet of economics is that people care about prices — as the price of a good increases, people purchase less
- Although we all recognize that this principle applies to pizza, it also applies to medical care
- Since an individual with health insurance only pays for part of the care, the insurer has an interest in keeping the total expenditures “low”
 - An individual who pays only part of the cost will purchase “too much” health care

Member cost of plan

- There are many ways a member may contribute to a plan
 - Premium
 - Enrollment fee
 - Cost-sharing — portion of expenditures covered by member

Cost-sharing

- The degree to which the individual bears some cost of treatment. Typical cost-sharing mechanisms include
 - **Deductible:** the amount the individual must pay out of pocket before plan pays for any service/procedure (e.g. \$350)
 - **Copayment:** the amount an individual must pay for a given service, independent of the cost of the treatment (e.g. \$15 office visit copay)
 - **Coinsurance:** the portion of approved charges that the individual must bear (e.g. 20 percent).

Example Cost-sharing

NC State Employees Health Plan

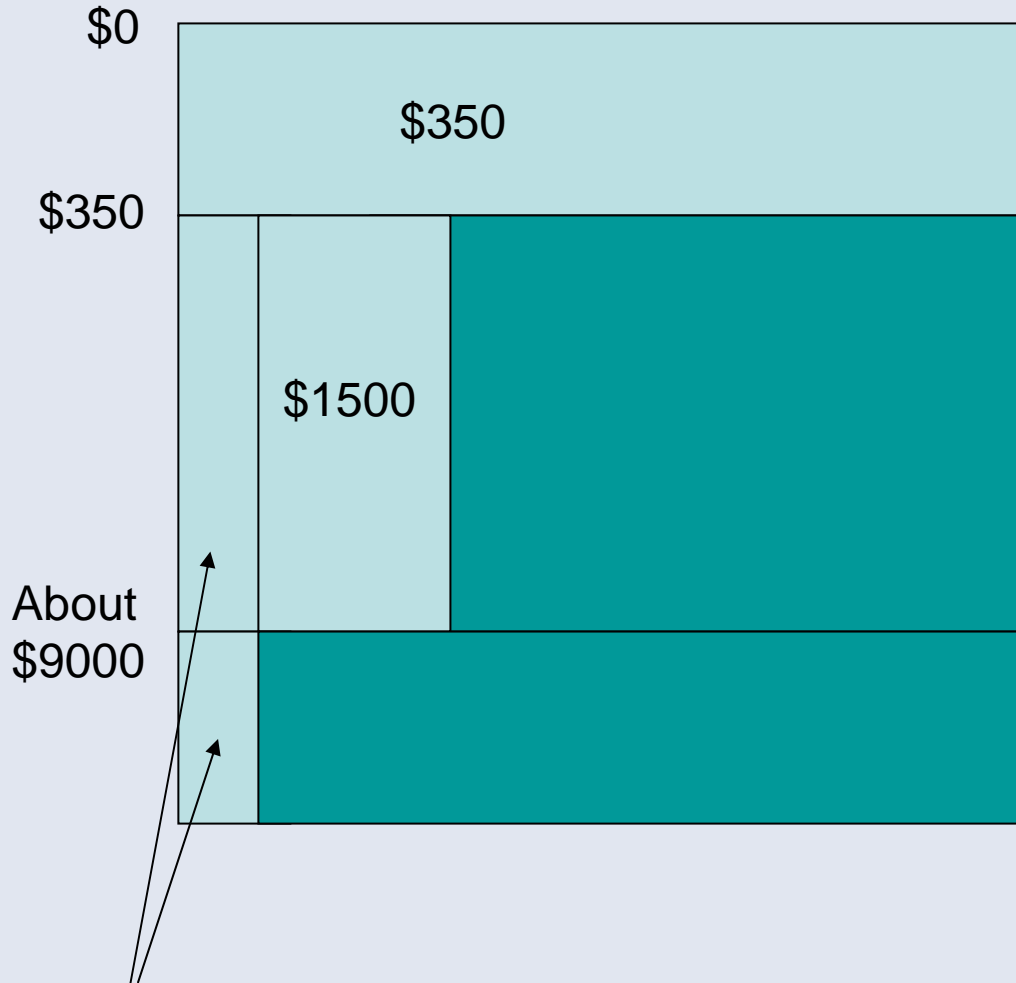
Total Expenditures



Individual



Plan



Individuals pay first
\$350 Deductible...

...then \$15 copayment for office
visits PLUS 20 percent
coinsurance of the remaining
charges, up until the coinsurance
total of \$1500, then...

...just the copayment.

Copayment

But that's just a simplified version...

- Actual plans have a lot more details
 - Differing copays: primary care vs. specialist, in-network vs. out-of-network, generic vs. brand name prescription drugs, ED copay waived if admitted, etc.
 - Coinsurance out of pocket, lifetime benefit maximums
 - Maximum benefit amount for a given service/procedure

Plan design influences responses

- Employer decision to offer
- Individual decision to take-up
- Individual decision to substitute to other coverage (e.g. public, non-group)
- Individual treatment decision (i.e. whether to purchase given procedure)

Increases in cost-sharing decrease the cost of coverage

- Economist: current insurance system is poorly designed because individuals have little incentive to purchase medical care responsibly since they bear less than the full cost of the service — too much care purchased
- Ergo, increasing cost-sharing increases the cost of medical care, so individuals will consider whether the service is appropriate
- (Of course, one consequence is that individuals might not purchase cheap preventive care and instead require more expensive treatment, but that's a digression)

Moral Hazard

- The principle that fully insured individuals have little incentive to act responsibly since they bear no (financial) risk
- Example: A husband leaves his golf clubs outside the house because he knows that if they get stolen his wife will replace them.
- Example: Individuals with cost-sharing have lower medical expenditures since they bear some cost of treatment

Some Effect Estimates

- What follows is a brief sample of estimates. This is an active thread in academic literature, and effects vary widely.
- The intent is to give a sense of the magnitude of effects.
- Actuarial analysis by Mercer uses complex set of effect estimates.

Take-up

- A Kaiser Study concludes even small premiums decrease takeup (<150%FPG)
 - \$0: 74% individual, 82% family
 - \$1: 49% individual, 70% family
 - 2% income: 36% individual, 60% family
- The higher the income, the greater the takeup
 - e.g., \$0: 74% for <150% FPG, 79% for 150-250% FPG, 86% for >250% FPG

Feder, Uccelo, O'Brien, October 1999. "The Difference Different Approaches Make: Comparing Proposals to Expand Health Insurance
<http://www.kff.org/uninsured/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=13257>

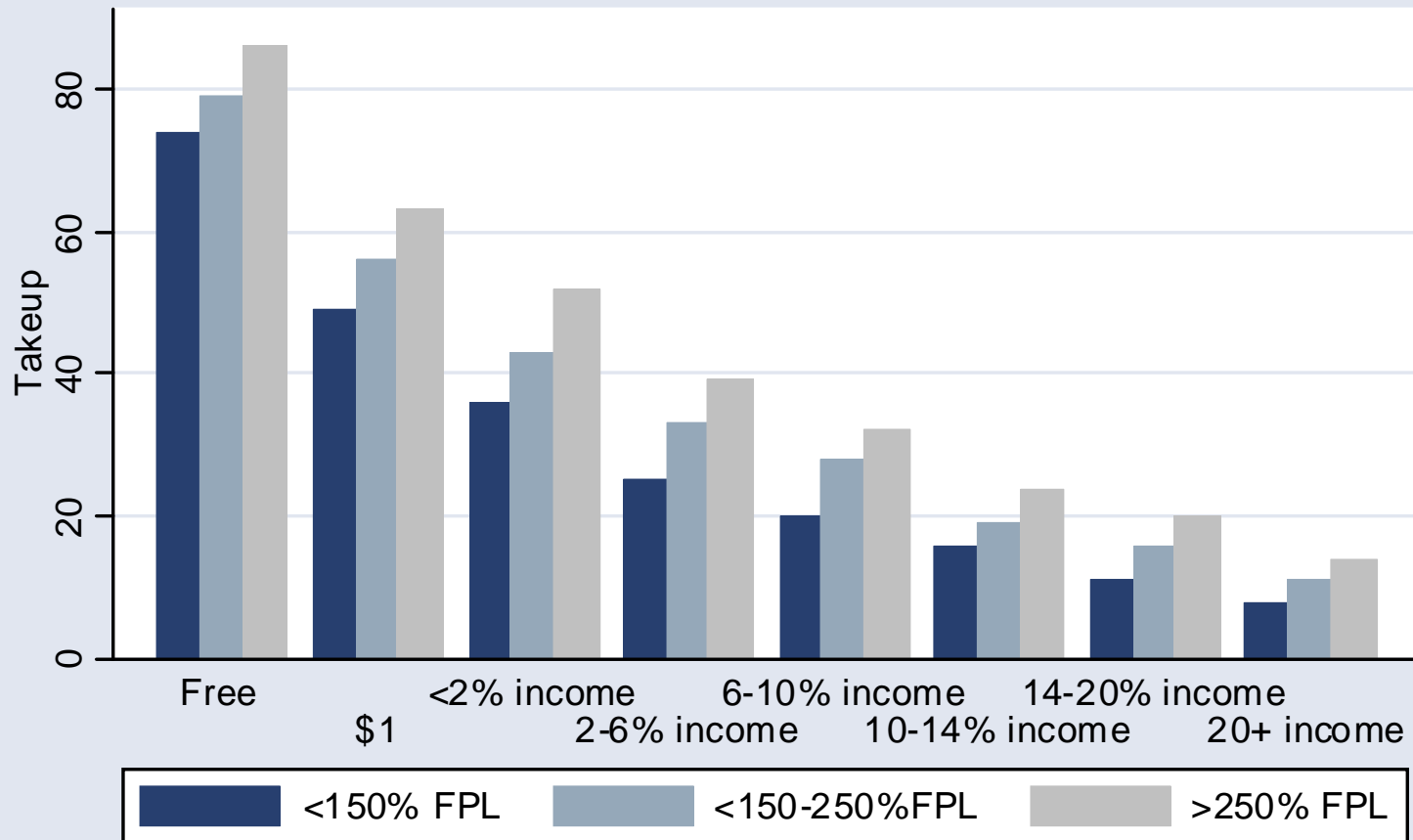
Take-up as function of premium and income (Individual)

Premium As a Percent Of Income	Cash Income		
	<150% of Poverty	150-250% of Poverty	250+% of Poverty
Free	74%	79%	86%
\$1	49	56	63
<2%	36	43	52
2-6%	25	33	39
6-10%	20	28	31
10-14%	16	19	24
14-20%	11	16	20
20+	8	11	14

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Effect of Premiums on Takeup

Individuals



Source: Feder, Uccello, O'Brien (1999)

These are the same data as the previous slide. The negative effect of increasing premiums and positive effect of family income is very evident.

Take-up as function of premium and income (Family)

Premium As a Percent Of Income	Cash Income		
	<150% of Poverty	150-250% of Poverty	250+% of Poverty
Free	82%	88%	95%
\$1	70	80	90
<2%	60	72	86
2-6%	50	65	78
6-10%	40	55	62
10-14%	32	38	47
14-20%	22	31	39
20+	15	22	28

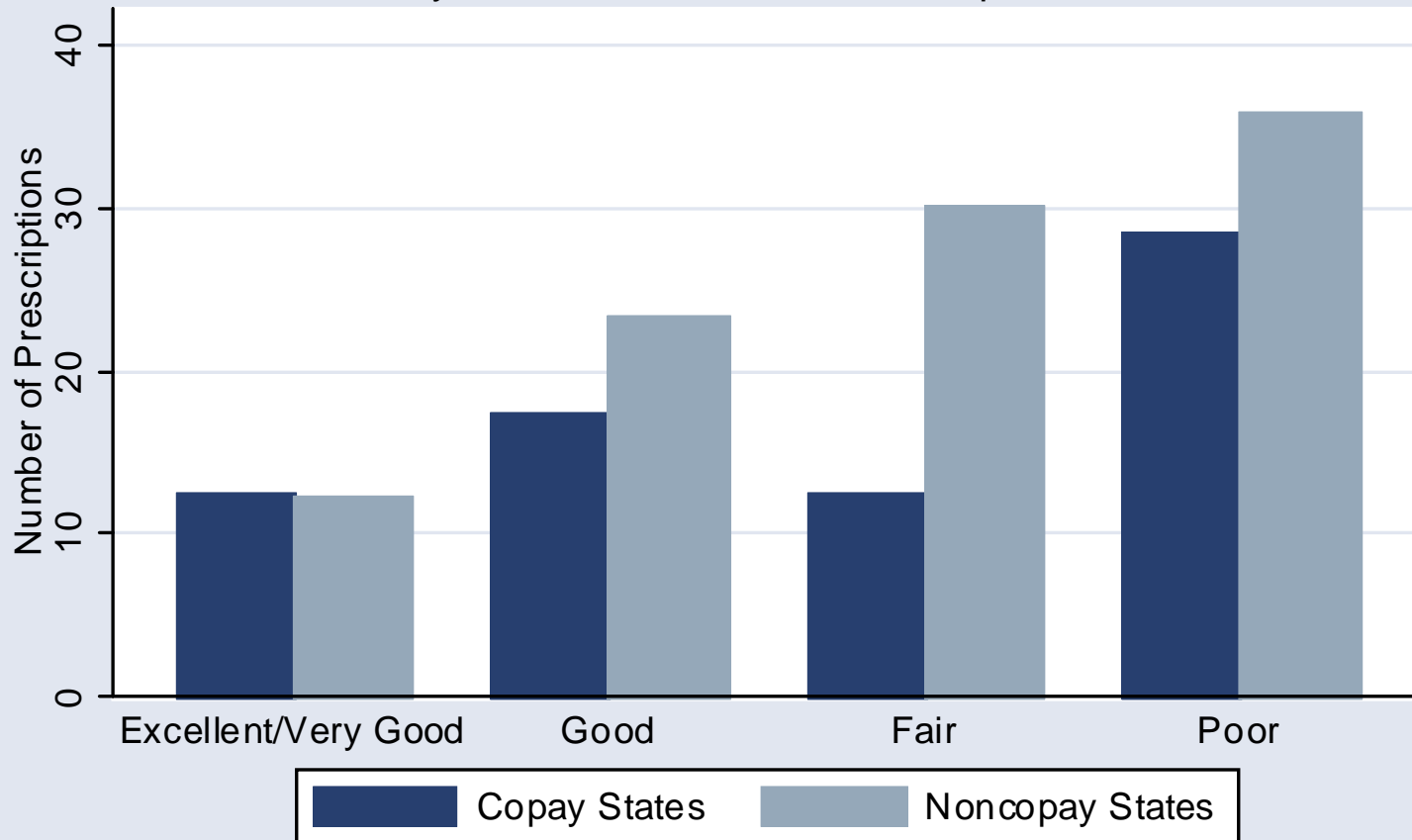
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Sample cost-sharing effects

- A \$5 copayment caused a 14% decline in physical examinations (larger for children, smallest for males) [Cherkin, Grothaus, Wagner, 1990]
- Prostate screening 62% lower in high cost-sharing plans [Liang, Phillips et al, 2004]
- ED use fell 15% after a \$25-\$35 copayment [Selby, Fireman, Swain, 1996]

Effect of Copays on Prescription Utilization

Elderly and Disabled Medicaid Recipients, 1992



Source: Stuart and Zacker (1999)

Recipients in states with copayments for prescription drugs tend to have lower utilization.

Summary

- Even small premiums have a substantial effect on takeup rates
- Lower income individuals tend to have lower takeup for a given premium, even when expressed as percent of income
- Cost-sharing can be used to limit expenditures/utilization

