

The Interaction of Public and Private Insurance: Medicaid and the Long-Term Care Insurance Market

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Motivation

- Insurance in the U.S. is often provided by a mix of public and private sources
- It is known that public provision can crowd out private provision of insurance
- We show that public insurance also has the potential to *increase* overall risk exposure
 - Public insurance is often limited
 - Even so, it might crowd out more comprehensive private insurance

A Specific Context: Long-Term Care

- Long-term care is an important source of expenditure risk for the elderly
 - Expenditures total \$135 billion annually
- Yet there is very little private insurance
 - Only 10% of elderly have private insurance
 - Private insurance reimburses 4% of ltc expenditures (vs. 35% of all health care expenditures)
 - One third of expenditures paid for for out of pocket (double the fraction for total health care)

Our Research

1. Our first paper analyzes structure and pricing of policies available in this market and concludes that supply side market imperfections, while they exist, are not the primary problem
2. Our second paper examines one particular demand side explanation – Medicaid

[Both papers are available at www.nber.org]

Medicaid as a Potential Culprit

- Medicaid is a payer of last resort
- It provides “free” but incomplete insurance
 - Must meet stringent asset and income tests
 - Interferes with consumption smoothing across time and care states
- Can incomplete but “free” public insurance crowd-out private coverage?

Overview of Key Questions (and Answers)

- Is Medicaid crowd-out quantitatively important?
 - *YES*. Can explain why 2/3 to 90% of wealth distribution doesn't buy (even if private market functions efficiently)
- Why does this happen?
 - Medicaid imposes a large “implicit tax” on private policies
 - Implications for policies designed to stimulate LTCI market
- Why do we care - is Medicaid “good” insurance?
 - *NO*: For most individuals, Medicaid provides very limited consumption-smoothing benefits
 - Even a very incomplete public insurance program can substantially crowd-out private insurance demand

Our Analytical Approach

- We model a 65 year old life cycle consumer, facing risk of long-term care and mortality
- Find maximum expected lifetime utility from optimal consumption path when private LTCI is purchased
- Take away the LTC insurance contract
- Find incremental amount of financial wealth such that when individual follows new optimal consumption path, they achieve same expected lifetime utility as when contract was available
- “WTP” = the incremental wealth
- Implemented using dynamic programming

Parameters: Public Coverage

- Medicare
 - Primary payer with limited coverage (primarily to help recover from acute illness rather than provide for long-term care per se)
- Medicaid
 - Secondary payer (private policy must pay first)
 - Accounts for 35% of LTC expenditures
 - Must exhaust one's personal resources first

Parameters: Private Policy

- Private policy (typical of purchased policies):
 - \$100 constant nominal daily benefit cap
 - Covers $\text{Min}(\text{daily benefit cap}, \text{actual expenses})$
 - Covers only 2/5 of expected costs
 - Annual premium approx \$1,800
 - Loads: 0.50 (men), -0.06 (women)
 - Premium waived while in care
- We will show what would happen with actuarially fair comprehensive policies

Parameters

- Expenditures from Metlife Market Survey – data used to price federal LTC program
- Real cost growth = 1.5% per year (Wiener, Abt)
- Long-term care utilization probabilities: actuarial model used by industry and regulators (the Robinson model)

Table 1: Descriptive Statistics of Care Utilization for 65 year old

Type of Care		Prob Ever Use	Average Age of 1 st Use (Among Users)	<u>Duration of Use (Among Users)</u>			<u>Exit and reentry (among users)</u>		
				Average Years Spent in Care	Prob use more than 1 year	Prob use more than 3 years	Prob use more than 5 years	Prob ever exit to non-death state	Avg # of spells
Nursing Home (NH)	Men	0.27	83	1.3	0.33	0.12	0.05	0.65	1.28
	Women	0.44	84	2.0	0.42	0.22	0.12	0.66	1.39
Assisted Living (ALF)	Men	0.12	82	0.58	0.16	0.04	0.01	0.90	1.18
	Women	0.20	85	0.48	0.13	0.04	0.01	0.93	1.26
Home Health (HHC)	Men	0.29	79	1.9	0.52	0.22	0.09	0.67	1.45
	Women	0.35	81	2.3	0.52	0.28	0.15	0.77	1.68
Any Care	Men	0.40	80	2.9	0.77	0.37	0.17	0.33	1.20
	Women	0.54	82	4.2	0.85	0.53	0.31	0.35	1.27

Note: All statistics are based on an individual who at 65 is medically eligible to buy private long-term care insurance (i.e. has no limitations to activities of daily living and is not cognitively impaired). Care utilization is measured as care utilization by individuals who satisfy the health-related benefit triggers required for care costs to be reimbursable by insurance contracts. See Section 3.1 for further details.

Basic Results Broadly Consistent with Empirical Patterns

- Model suggests most of wealth distribution does not want to buy existing policies
 - Survey data: 90 percent of elderly uninsured
- Model finds willingness to pay rises with wealth
 - Survey data: coverage rates rise with wealth
- Model finds willingness to pay similar for men and women
 - Survey data: Coverage rates similar for men and women, despite substantial differences in loads

Table 2: Willingness to Pay Across Wealth Distribution (Market Loads)

Wealth %tile	CRRA = 1		CRRA = 3	
	Men	Women	Men	Women
30 th	-17.4	-19.6	-18.2	-20.7
40 th	-17.2	-19.1	-16.2	-18.9
50 th	-16.2	-17.3	-11.4	-11.5
60 th	-14.6	-14.2	-3.0	+1.5
70 th	-13.4	-11.4	+6.4	+14.4
80 th	-10.9	-6.3	+17.7	+29.8
90 th	-8.2	-0.1	+25.6	+41.6

Note: Results are in \$000s.

Use Model to Study Impact of Medicaid More Formally

- How important is Medicaid in understanding limited WTP for private policies?
 - What does WTP look like if offer actuarially fair comprehensive policies (vs. limited private policies with high loads)
- Why does Medicaid crowd out private insurance?
- How does Medicaid affect total insurance coverage?

Table 4: Would People Buy Actuarially Fair Comprehensive Policies? (Load = 0 for each gender)

Wealth %tile	CRRA = 1		CRRA = 3	
	Men	Women	Men	Women
30 th	-16.8	*	-17.7	*
50 th	-13.1	-41.1	-2.7	-35.8
70 th	-6.6	-27.7	33.0	30.7
90 th	6.0	0.6	88.7	140.9

Note: * denotes disutility exceeds value of starting financial wealth

- Most of wealth distribution still doesn't want to buy
 - Have cut prices in half for men!

Key Finding

- Even w/o market failures, Medicaid can explain lack of private insurance purchases for at least two-thirds – and as much as 90 percent – of the wealth distribution.
 - Fixing whatever supply-side market failures contribute to high loads and limited benefits would not do much to increase private insurance demand

Medicaid's "Implicit Tax"

- A substantial part of private policy benefits pay for expenditures that Medicaid would otherwise have covered (private policy "cannibalizes" Medicaid)
- This "implicit tax" on private policies comes from two sources
 - Means tested eligibility
 - Medicaid is a secondary payer
- "Net load" (that considers the implicit tax) is much higher than gross load

Table 5: Medicaid: Implicit Tax and Completeness of Coverage

Wealth Percentile	Share of Expend Paid by Mcaid		Implicit Tax on Private Insurance	Net Load on Private Insurance	WTP to “Top Up” Medicaid
	No Private Insurance	With Private Insurance			
	(1)	(2)	(3)	(4)	(5)
Men					
10 th	0.98	0.52	0.998	1.00	0.0
30 th	0.80	0.41	0.840	0.92	3.3
50 th	0.60	0.32	0.594	0.80	19.6
70 th	0.32	0.20	0.272	0.64	51.0
90 th	0.07	0.05	0.036	0.52	100.9
Women					
10 th	0.99	0.55	0.999	1.00	0.0
30 th	0.88	0.46	0.946	0.94	2.3
50 th	0.72	0.38	0.767	0.75	29.7
70 th	0.45	0.24	0.470	0.44	86.3
90 th	0.08	0.06	0.054	-0.003	166.3

Should We Care?

- If Medicaid is “good” insurance, then crowd-out may not be important for total insurance coverage
- But we find Medicaid is not good insurance for most people
 - Medicaid requires a deductible of virtually all of one’s assets and income
 - Leaves individual to pay for large share of expenditures
 - Interferes with consumption smoothing across states and time
 - Reduces resources available to those who exit from care
- Most willing to pay to “top up” Medicaid if this were possible (but it is not!)

Recent Policy Interventions Do Not Substantially Reduce Implicit Tax

- Federal and state tax subsidies for LTCI
 - We estimate median still won't buy (net load still high)
 - Implicit tax decreasing in wealth, subsidy increasing in wealth
- Recent state Medicaid reforms (e.g. NY, CA)
 - Eliminate Medicaid asset test if buy minimum private insurance
 - We find median still won't buy (implicit tax remains large due to secondary payer status)
- What about making Medicaid a primary payer?
 - Median still won't buy
 - Implicit tax reduced but not eliminated (means testing)

What Medicaid Reforms Might Successfully Stimulate Demand?

- To eliminate implicit tax, Medicaid payment must be independent of private insurance coverage
- Example: Offer to individuals who buy a fully comprehensive policy a refundable tax credit equal to the EPDV of what Medicaid would have paid if there were no LTCI
 - Requires much higher credit for lower income individuals (expect more Medicaid payments)
 - **Concerns about adverse selection

Conclusion

- Medicaid is capable of explaining the lack of private insurance purchase for at least two-thirds (and as much as 90 percent) of the wealth distribution.
 - Correcting supply-side market failures will not substantially increase private insurance coverage
- This crowd-out occurs even though Medicaid is “not very good” insurance
- Policies that fail to reduce the implicit tax are unlikely to stimulate much demand for private insurance
- Future work: optimal design of Medicaid