The Market for Stand-Alone Prescription Drug Insurance

Prescription drugs play an increasingly important role in treating both chronic and acute health conditions, yet many Americans lack insurance coverage for prescription drugs. Medicare, the government health insurance program for seniors and the disabled, provides no coverage for prescription drugs. As a result, one in four seniors has no drug coverage and many others are underinsured. Roughly one-quarter of non-elderly Americans also have no drug coverage, a figure somewhat higher than the share of this population without health insurance.

One possible solution is for insurance companies to offer stand-alone prescription drug insurance plans for purchase by individuals. Like all insurance, prescription drug insurance is potentially plagued by adverse selection, the tendency of those who know they are at higher risk of making a claim to be more likely to purchase the insurance. In extreme cases, the presence of adverse selection can trigger a death spiral, where only the worst risks purchase coverage and the private insurance market collapses. This problem can be avoided if insurers charge higher premiums to high-risk individuals, but insurers may lack the necessary data to determine an individual’s risk level or may be prohibited from charging different rates on this basis.

In Adverse Selection and the Challenges to Stand-Alone Prescription Drug Insurance (NBER Working Paper 9919), Mark Pauly and Yuhui Zeng explore the extent to which adverse selection poses a problem in the case of stand-alone prescription drug insurance. Adverse selection is more likely to be a problem if there are large differences in expenditures across people and some persistence in expenditures over time, so that individuals know whether they are at high risk for having large expenditures in the future.

The authors examine the distribution and persistence of drug expenditures using a database of claims for 140,000 insured, non-elderly persons during the 1994-1998 period assembled by the MEDSTAT Group. They find that drug expenditures are highly skewed; in 1994, individuals in the top quintile of the sample (that is, the 20 percent of individuals with the highest drug expenditures) spent 3.9 times as much the average person in the sample.

Even more interestingly, the authors find strong persistence in drug expenditures from year to year. As Figure 1 illustrates, 76 percent of individuals who were in the top quintile of drug expenditures in 1994 were also in the top quintile the following year, and 60 percent were still in the top quintile four years later. The degree of persist-
The Labor Supply Effects of SSI

The Supplemental Security Income (SSI) program, which guarantees a minimum level of income for elderly, blind, and disabled individuals, provides a crucial safety net for the low-income elderly. In 2000, the 1.3 million beneficiaries of the aged component of the program received $4.8 Billion in benefits, or an average monthly benefit of over $300. For more than one-third of these beneficiaries, SSI was their only source of income.

The SSI program is means-tested, so that benefits are reduced as family income and assets rise — specifically, most families lose fifty cents in benefits for every dollar in labor earnings and one dollar in benefits for every dollar in non-labor income. For low-income families, the means-testing can discourage work after age 65, the age at which individuals become eligible for SSI. However, SSI can also discourage work before age 65, as one of the reasons to continue working is to increase future Social Security and pension benefits, and these higher benefits are exactly offset by a reduction in SSI benefits.

In The Effects of Changes in State SSI Supplements on Pre-

The authors conclude that subsidies for stand-alone prescription drug plans, a potential solution sometimes mentioned in the current discussion of how to extend drug coverage to the Medicare population, would need to be on the order of 70-90 percent of the premium to entice most seniors to join such plans.

The authors caution that their results do not necessarily imply that generous SSI benefits constitute poor public policy. Rather, this study highlights the tradeoffs inherent in any social insurance program — providing more generous bene-

This research was supported by the Merck Company Foundation, but reflects only the views of the authors, not the Merck Company Foundation. The research was summarized by Courtney Coile.
It is a fact of life that health declines with age. When people are asked to rank their health status on a 5-point scale (where 1 is excellent and 5 is poor), the average response for men rises from 1.75 at age 20 to 2.5 at age 60. For women, there is a similar but somewhat smaller increase, from 2 to 2.5.

This initial finding from Broken Down by Work and Sex: How Our Health Declines (NBER Working Paper 9821) motivates authors Anne Case and Angus Deaton to explore further the age profile of health. They use data from sixteen waves of the National Health Interview Survey to generate a sample of about 700,000 persons aged 18-60 during the 1986-2001 period.

The authors begin by pointing out an intriguing fact: when the age profile of health is disaggregated by income group, as is shown for men in Figure 1, it is apparent that health declines much more rapidly during the working years for those at the bottom of the income distribution than for those at the top.

The authors suspect that this may be explained in part by occupation — manual work involves more wear and tear on the body, so the health of manual workers may decline more rapidly than that of non-manual workers. To test this, the authors estimate the effect of occupation on the 5-point self-reported health index. They find that having a manual occupation such as machine operator or food service person raises one’s health index by about 0.15 points relative to being an executive.

The analysis controls for income, so this is the effect of a manual occupation on health above and beyond the effect that comes from having a lower income. Income and education both have protective effects on health. Interestingly, the effect of having a manual occupation on health is very similar for men and women, suggesting that any occupation-related differences in health between men and women are due to the allocation of men and women across occupations, not from differences by sex within occupations.

As the authors are primarily interested in the effect of occupation on the age profile of health, they next examine this directly. They find that having a manual occupation boosts health in the middle of the income distribution without generating large and costly increases in eligibility for SSI.

This research was supported by the National Institute on Aging. It was summarized by Courtney Coile.
occupation is associated not only with a higher level of the self-reported health index but also with a larger increase in the index as the worker ages. Again, the results control for income and education and are similar for men and women.

One issue complicating the effort to study the links between income, occupation, and health is that workers in manual occupations may be more likely to exit the labor force for health-related reasons. Figure 2 explores this by showing the age profile of health for men at the 25th and 75th percentile of the income distribution by labor force status. While the health of working men at the 25th percentile worsens slightly faster with age than that of working men at the 75th percentile, this difference is swamped by the effect of being out of the labor force. This suggests that the relationship between income and the age profile of health shown in Figure 1 is largely driven by health-related withdrawal from the labor force reducing income, rather than by low income causing poor health.

This research was funded by a grant from the National Institute on Aging to the NBER and was summarized by Courtney Coile.

NBER Profile: Janet Currie

Janet Currie is a Research Associate in the NBER's Programs on Labor Studies, Children, and Education. She has been affiliated with the NBER since 1991 and served as Director of the Children's Program in 1997-1998.

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Currie received her Ph.D. from Princeton University and her Masters and Bachelors degrees in Economics from the University of Toronto. She held faculty positions at UCLA and at MIT before returning to UCLA in 1993.

Her recent work focuses on the effects of public programs on poor children. In particular, she has studied the effect of Medicaid (health insurance), Head Start (preschool), and nutrition programs such as the National School Lunch Program and WIC programs on child outcomes.

Currie is married to W. Bentley MacLeod, a Professor of Law and Economics at the University of Southern California. They have two young children. The family enjoys visiting the many museums and gardens in Los Angeles, eating out, day trips exploring Southern California, and camping.

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