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Freedman, V. A., and L. G. Martin. 1998. Understanding trends in functional limitations among older americans. *American Journal of Public Health* 88:1457–62.
Fries, J. F. 1980. Aging, natural death, and the compression of morbidity. *New England Journal of Medicine* 303:130–35.
Lakdawalla, D., J. Bhattacharya, and D. Goldman. 2004. Are the young becoming more disabled? *Health Affairs* 23 (1): 168–76.
Lakdawalla, D., D. Goldman, J. Bhattacharya, M. Hurd, G. Joyce, and C. Panis. 2003a. Forecasting the Nursing Home Population. *Medical Care* 41 (1): 8–20.
———. 2003b. A response to the points by Manton and Williamson on "Forecasting the nursing home population." *Medical Care* 41 (1): 28–31.
Manton, K. G. 2003. Response to "Forecasting the nursing home population" by Lakdawalla et al. *Medical Care* 41 (1): 21–24.
Manton, K. G., L. Corder, and E. Stallard. 1997. Chronic disability trends in elderly United States populations: 1982–1994. *Proceedings of the National Academy of Science* 94:2593–98.
Manton, K. G., and X. L. Gu. 2001. Changes in the prevalence of chronic disability in the United States black and nonblack population above age 65 from 1982 to 1999. *Proceedings of the National Academy of Science* 98 (11): 6354–59.
Moxey, E. D., J. P. O'Connor, K. D. Novielli, S. Teutsch, and D. B. Nash. 2003. Prescription drug use in the elderly: A descriptive analysis. *Health Care Financing Review* 24 (4): 127–41.
Pardes, H., K. G. Manton, E. S. Lander, H. D. Tolley, A. D. Ullian, and H. Palmer. 1999. Effects of medical research on health care and the economy. *Science* 283 (5398): 36–37.
Poisal, J. A. 2003. Reporting of drug expenditures in the MCBS. *Health Care Financing Review* 25 (2): 23–36.
Waldron, C. J., and J. A. Poisal. 1999. Five most commonly used types of pharmaceuticals. *Health Care Financing Review* 20 (3): 119–23.

Comment

Jonathan Skinner

There are few analyses of pharmaceutical drug utilization in the general elderly population, and most of those are cross-sectional (e.g., Safran et al. [2005], although see Centers for Medicare and Medicaid Services [CMS] n.d.). Thus, Bhattacharya, Garber, and MaCurdy should get special credit for tackling an extremely difficult problem, which is tracking prescription drug use among the elderly and disabled population between 1992 and 2001. The Medicare Current Beneficiary Survey (MCBS) can be extremely tricky to use as a longitudinal data set, and the fact that their estimates look reasonable and tell a compelling story is all the more remarkable. For this alone, the authors deserve applause. Understanding pharmaceutical cost growth is a particularly important topic, given the future potential of even

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more rapid growth in prescription drug expenditures as the Medicare Part D plan takes effect.

In these comments, I make two general points. First, the paper raises a number of fascinating issues surrounding the substitution effects between prescription drug use and more conventional (Part A and B) health care expenditures. Is it possible to get traction on this important question using these MCBS data—for example, are regions where pharmaceutical expenditures are rising the most rapidly also the ones experiencing the most modest growth in conventional health expenditures? Or are regions where pharmaceutical utilization is rising most rapidly (for example, in the use of cholesterol-lowering statin drugs) also the ones where specific illnesses are falling the most rapidly (e.g., cardiac disease)? These are all questions that could be addressed using these data, and I look forward to seeing more.

And second, the paper is motivated by the ongoing debate regarding the future progression of disability. In the view of Manton and his colleagues, we can look forward to a steady downward trend in disability among the elderly population (Manton, Corder, and Stallard 1997). By contrast, Bhattacharya and his colleagues suggest that rising patterns of obesity and mental illness currently in the middle-aged population could lead to increasing disability rates in the future, with presumably adverse consequences for the Medicare budget (Lakdawalla et al. 2003). Fortuitously, the data presented here by the researchers shed light on this debate because they have carefully estimated levels and growth for both disability rates and expenditures on pharmaceuticals conditional on disability. In the following, I consider whether we need to know the resolution of this debate before we can reasonably predict or forecast future pharmaceutical (and overall) health care costs.

Bhattacharya, Garber, and MaCurdy consider four populations enrolled in the Medicare program: those under age sixty-five on Social Security Disability Insurance, elderly people without any deficits in their Activities of Daily Living (ADL = zero), moderately disabled (one to two ADLs), and more severely disabled elderly people (three or more ADLs). Figure 8.1 in their paper shows remarkable similarities in the growth rates from 1992 to 2001 of pharmaceutical expenditures within each of the four groups. By my crude approximations, annual nominal expenditure growth for each group appears to lie within a remarkably narrow band of 11 to 12 percent.[1]

We also know from the authors' table 8.1, both levels and changes in these categories during the period 1992 to 2000. (Assume the 2000 disability measures are matched to the 2001 expenditures.) My figure 8C.1 uses their data

1. After adjusting by the gross domestic product (GDP) deflator, real expenditure growth is 1.7 percentage points below nominal expenditure growth.

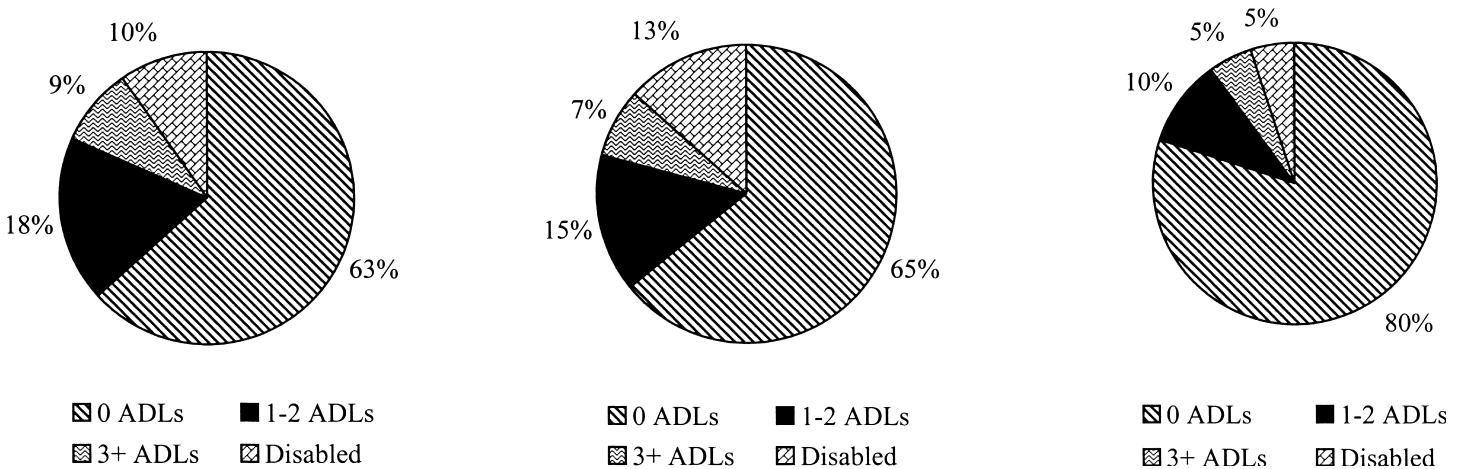

Figure 8C.1 Actual and counterfactual changes in disability measures for the over-sixty-five population, 1992–2000
Source: Bhattacharya, Garber, and MaCurdy (chapter 8 in this volume, authors' assumptions).

to show the breakdown of the population served by the Medicare program, including the under-sixty-five population covered under Disability Insurance. In 1992, 10 percent of the total covered Medicare population was disabled and under age sixty-five, 18 percent were over sixty-five and experienced one or two ADLs, and 9 percent were elderly and experienced three or more. The remainder, 63 percent were over sixty-five but without any disability. By 2000, the percent disabled had climbed to 13 percent, but the fraction of elderly people with ADLs had fallen (figure 8C.l). How much of an impact did the slight decline in disability have on per capita pharmaceutical expenditures? The short answer is: barely detectable.

This point can be made more forcefully by taking an extreme counterfactual case. Assume a magic drug that cuts disability rates in the U.S. population by more than 50 percent. In this happy counterfactual world, disability rates have plummeted to just 5 percent (under sixty-five), 5 percent (three or more ADLs) and 10 percent (one to two ADLs) in 2000 (see figure 8C.1). In contrast to the true rate of 65 percent of the enrolled Medicare population with no ADLs, this counterfactual case assumes that 80 percent of the population has no disabilities.

Had this occurred, what would have happened to growth rates in pharmaceutical expenditures? Still not much. Rather than annual growth rates of 11.5 percent, there would have been growth rates of 10.4 percent. Both growth rates are likely to be unsustainable, although at a rate of 11.5 percent, the day of reckoning will arrive somewhat earlier, a point made more generally for Medicare expenditure projections in Lee and Skinner (1999). This result contrasts with the work by Bhattacharya et al. (2004), who suggest that Medicare expenditures will actually decline in the short term because of improvements in disability. However, their result is easily understood given that they assume future disability-constant growth rates in Medicare expenditures to be equal to the inflation rate. In their projection, real Medicare expenditures (adjusted for inflation) will clearly decline as the population becomes healthier, at least for the next several decades.

But as long as overall medical expenditures grow substantially more rapidly than inflation—as has been the case for the last half-century—the importance of changes in disability for spending projections will remain second-order. This is not to say that disability rates aren't of first-order importance to the health and well-being of the American population. Indeed, were disability rates to attain the desirable levels posited in the counterfactual, an 11.5 percent growth rate in pharmaceutical expenditures would be well worth it.

References

Bhattacharya, Jay, David Culter, Dana Goldman, Michael Hurd, Geoffrey Joyce, Darius Lakdawalla, Contantijn Panis, and Baoping Shang. 2004. Disability fore-

casts and future medicare costs. In *Frontiers in health policy research.* Vol. 7, ed. Alan Garber and David Cutler, 75–94. Cambridge, MA: MIT Press.

Centers for Medicare and Medicaid Services (CMS). n.d. *Health and health care of the Medicare population 2000,* Ch. 2. http://www.cms.hhs.gov/apps/mcbs/MCBSsrc/2000/00cb2.pdf.

Lakdawalla, Darius, Dana Goldman, Jay Bhattacharya, Michael Hurd, Geoffrey Joyce, and Constantijn Panis. 2003. Forecasting the nursing home population. *Medical Care* 41(1): 8–20.

Lee, Ronald, and Jonathan Skinner. 1999. Will aging baby boomers bust the federal budget? *Journal of Economic Perspectives* 13 (1): 117–40.

Manton, Kenneth G., Larry Corder, and Eric Stallard. 1997. Chronic disability trends in elderly United States populations: 1982–1994. *Proceedings of the National Academy of Science* 94:2593–98.

Safran, Dana G., Patricia Newman, Cathy Schoen, Michelle S. Kitchman, Ira B. Wilson, Barbara Cooper, Angela Li, Hong Chang, and William H. Rogers. 2005. Prescription drug coverage and seniors: Findings from a 2003 national survey. *Health Affairs* Web Exclusive (April 19).