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Comment

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For many purposes, we need to understand how likely people are to enter a nursing home. Many economists have wondered whether long-term care insurance is a good deal. Despite nursing homes being a major expense (a month in a nursing home costs about $6,000; Metlife Mature Market Institute 2009), only about 14 percent of the elderly possess a long-term care insurance policy (Brown and Finkelstein 2011). Is this because the residual risk is still large (Cutler 1996)? Because people are not financially or statistically literate (Lusardi and Mitchell 2007)? Because long-term care insurance is overpriced relative to relying on Medicaid (Brown and Finkelstein 2008)? Only by understanding the true probability of long-term care utilization can we answer these questions.

Similarly, many authors have considered whether people at or near retirement have savings adequate to finance their consumption during retirement years (Poterba, Venti, and Wise 2012). Normal consumption is relatively straightforward to estimate; it is typically assumed that the elderly will need about 80 percent of their consumption during working years when they are retired. But long-term care is a major additional expense. If the expected cost of long-term care is high, it implies that many people are undersaving. The key to determining this is again the lifetime risk of nursing home use.

Michael Hurd, Pierre-Carl Michaud, and Susann Rohwedder have done an enormous service by estimating the lifetime risk of nursing home care. They have taken data from the Health and Retirement Study and carefully estimated the probability that a person enters a nursing home. Along the way, they tackle several difficulties: the sampling frame for the HRS is people not in institutions; even though the HRS has been collecting data for nearly two decades, many of the original cohort have not lived long enough to measure total lifetime use; and so on. To address these problems, Hurd, Michaud, and Rohwedder estimate transition rates from one health state to another and then use these transition rates to simulate the probability that a random group of individuals will enter a nursing home before they die.

The final answer from Hurd and colleagues is that just about half of people age fifty and older (53 percent) will enter a nursing home before they die. That answer can then be plugged into equations for the value of long-term care insurance and for required saving to see how the elderly and near elderly are doing in their preparation for this event.

The most striking feature about the Hurd et al. result is that it is higher than comparable studies previously published. The most cited estimate of lifetime nursing home risk used to be Kemper and Murtaugh (1991). Using

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data from the National Mortality Followback Study, Kemper and Murtaugh estimated that 37 percent of people used a nursing home before they died. More recently, Brown and Finkelstein (2008) reported on lifetime nursing home risks as determined by a model commonly used by insurance actuaries in pricing long-term care insurance (Robinson 2002). That model suggests that lifetime nursing home risk for a sixty-five-year-old who is healthy enough to buy long-term care insurance is 27 percent for men and 44 percent for women—reasonably close to the estimate of Kemper and Murtaugh.

Hurd and colleagues claim that the difference between their estimates and those in the prior literature is that they include information provided by the next of kin in a postdeath survey, and there is significant use of nursing homes prior to death. A survey only of people who are alive would miss these stays. With regard to the Kemper and Murtaugh paper, however, this cannot be the sole explanation. Kemper and Murtaugh base their results entirely on a survey of next of kin. In principle, the National Mortality Followback Survey should pick up all people who used a nursing home, even in the period just before death. The Robinson model reported on by Brown and Finkelstein is a transition model just as Hurd et al. is. It is based on the early years of the National Long-Term Care Survey, in particular data from the 1982, 1984, and 1989 waves. I could not discern whether it used information from a next-of-kin survey on the use of nursing homes just prior to death, and would find clarification on this helpful.

If not a result of next-of-kin interviews, what else might explain the difference in nursing home rates between Hurd et al. and the prior studies? For starters, the data in the prior studies are relatively old. The National Mortality Followback Study was conducted in 1987 and was based on deaths in 1986. The Robinson model is based on transitions in the 1980s. Each of these is sufficiently old that newer data could give different results. The difficulty, however, is that the age-adjusted prevalence of nursing home residence is falling, so I would guess the trend would be for newer data to give lower values of nursing home care. In addition, the sample sizes for the older data are not huge—there are about 17,000 next of kin interviewed in the National Mortality Followback Survey and a comparable number in the National Long-Term Care Survey. The HRS is larger and perhaps more reliable. In the end, I am not sure how to explain the higher number here, and would like more clarification.

As Hurd et al. continue assembling their model, there are two elements I would like to see them add. First, they could differentiate between short- and long-term nursing home stays. There are two types of nursing home visits, and they are generally reimbursed differently. Short stays are used to recover from acute events: strokes and broken hips are the classic examples. They involve significant rehabilitation and have the endpoint of discharge to the community. Medicare generally pays for such stays, since the care provided is associated with recovery from an acute medical event. Long stays are associ-

ated with frail individuals or people with severe and worsening impairment. People with Alzheimer's disease, Parkinson's disease, and other degenerative physical and cognitive impairments are often in a nursing home for long periods of time. Medicare does not pay for these stays. Rather, payment comes from the individual, their family, or Medicaid if family funds are not sufficient. It is these stays that an individual may wish to insure against. The vast bulk of nursing home days are accounted for by long stay residents, but the share of stays will be tilted much more to the short stays.

In light of this mix, looking at whether people have any nursing home stay is not the best predictor of long-term care needs that an individual may wish to insure. I would like to see the analysis differentiate between Medicare-covered acute rehabilitation stays and long-term stays associated with frailty and decline.

The issue of distinguishing short and long stays is compounded by the fact that there are other alternatives for short stays beyond the nursing home. Inpatient rehabilitation facilities are alternatives to skilled nursing facilities, and one would not want to count a nursing home stay without also counting stays in a rehabilitation hospital. Otherwise, trends in the use of these two facilities would have major impacts on the estimated use of nursing care, which is not being affected nearly as much.

On the long-term stay side, the major alternative to using a nursing home is assisted living. The use of assisted living has increased immensely in recent years. For payment purposes and for evaluating the welfare of the elderly, we care about how stays in these two types of facilities are trending and how substitutable assisted living is for nursing homes. I believe it is possible to model assisted living facilities in the HRS, much as the authors have done for nursing homes, and I would encourage the authors to do so.

In sum, what seems like a small issue becomes big very rapidly. Hurd et al. start with a tightly focused question, and in no time the desired model grows. Hopefully, we will see the model evolve to incorporate these additional issues.

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