

THE EFFECT OF THE RISK OF OUT-OF-POCKET SPENDING FOR HEALTH CARE ON ECONOMIC PREPARATION FOR RETIREMENT

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After retirement, the primary sources of uncertainty with respect to an individual's economic status are longevity, investment outcomes and out-of-pocket spending on health care. A person may be well-prepared if outcomes in these three areas are average. In that case, for example, he or she may have sufficient resources to live to life expectancy or afford average out-of-pocket spending for health care services for the rest of his or her life. But should that person live substantially longer than life expectancy or experience health shocks that require above-average spending on health care, he or she may prematurely deplete available resources.

In previous work, we estimated economic preparation for retirement, taking into account the risk of living to an advanced old age and the concomitant risk of running out of resources. Our method was to estimate empirical life-cycle consumption paths on the basis of panel data on total spending. We asked whether, in a sample of 65–69 year-olds, economic resources could support with high probability the life-cycle consumption path anchored at the initial level of consumption until the end of life.

This prior work explicitly accounted for mortality risk and the variation in mortality risk as a function of education, marital status and sex. We found that a substantial majority of those just past the usual retirement age are adequately prepared for retirement, in that they will be able to finance a path of consumption that begins at their current level of consumption and then follows an age-pattern similar to that of current retirees. This is not true, though, for all groups in the population. In particular, almost half of singles without a high school education will likely be forced to reduce consumption. Couples are much better prepared than singles. But because of taxes, a substantial number of married college graduates will also have to reduce consumption.

The model we used for that prior work accounted for health care spending levels, but not for health-care spending risk, that is, the possibility that health care spending may take very large or very small values. The goal of this paper is to explicitly account for the risk of large out-of-pocket spending on health care. Our method is similar to that of our previous paper, and like our previous paper it accounts for taxes, differential mortality, and returns-to-scale in consumption. But, in addition, individuals and households are subject each year to a random expenditure on health care. We draw these spending shocks from the empirical distribution of out-of-pocket spending on health care in HRS 2008. Because they can be large, in some cases, they can reduce the wealth of an individual or household to zero. The increase in the variance in spending, rather than an increase in the mean, will reduce the percentage of persons and households adequately prepared for retirement.

Our first comparative results are based on the assumption that, conditional on age, sex, education and marital status, the shocks to health care spending are independent from one year to the next. We found that, indeed, stochastic variation in out-of-pocket spending for health care changes the percentage of people adequately prepared for retire-

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ment. About 72% of persons were adequately prepared when we assumed spending was not stochastic, compared with 66% when we assumed it was. But the effects differed according to marital status, sex and education. Averaged over all couples, the health spending shocks reduced economic preparation for retirement from 80% to 76%. The reduction was larger among the less-well educated because they had a relatively smaller amount of wealth to buffer against shocks. Economic preparation among married females in the lowest education category is estimated at just 65% when accounting for random out-of-pocket spending shocks.

Among singles, the effect of health care spending shocks is substantially greater because of a lower level of wealth against which to buffer the shocks. Averaged over all education levels, economic preparation fell from 57% to 48% of single persons. Among women in the lowest education category it fell by 13 percentage points to just 19.8%.

Our second set of comparative results is based on a model of health care spending in which there is correlation in spending at the individual level from one year to the next. For example, individuals with chronic conditions are likely have above average spending in two adjacent years whereas healthy individuals are likely to have below average spending in two adjacent years. We estimated this correlation in spending based on data from the Medicare Current Beneficiary Survey (MCBS) and found that the correlation is quite high, about 0.55 among married-person households and about 0.67 among single persons. This high correlation reduces economic preparation for retirement by attributing more extreme spending to some households and individuals.

When we averaged over all persons, both single and married, the percentage adequately prepared was 62.5%. This is 9.2 percentage points lower than our results when out-of-pocket spending does not have a stochastic component. It should be emphasized that this reduction is not due to an increase in total spending: averaged over everyone, out-of-pocket spending on health care did not change (by design). It resulted from attributing high spending to some individuals and low spending to others.

The effects of stochastic health care spending were larger among singles than among married people. When there are no shocks 56.8% of single persons were adequately prepared; with correlated shocks in health care spending, 43.9% were adequately prepared. The difference for females was even larger: 58.3% versus 38.6%. For females lacking a high school degree, just 15.3% died with positive wealth in the simulations based on serially correlated spending, compared with 32.8% when health spending was not stochastic.

The effects on married people are not nearly as large because many couples have wealth substantially in excess of the magnitudes of most health care spending shocks. Thus, the percentage adequately prepared declined from 80.3% to 73.3%.

We conclude that accounting for the stochastic nature of out-of-pocket spending on health care has an important effect on our estimates for the frequency of adequate economic preparation for retirement, particularly for single persons and the less educated. The results also suggest a role for better insurance: with perfect insurance, out-of-pocket spending would be at the mean level of our baseline simulations, resulting in an increase in about nine percentage points of persons adequately economically prepared for retirement.

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