



The Schroeder Center for Health Policy

The Thomas Jefferson Program in Public Policy

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Recessions and Seniors' Health

What's in this brief?

A summary of the relationship between labor market conditions and health.

A review of current Schroeder Center research on **recessions and seniors' health**.

An explanation of how research on recessions and seniors' health paves the way for future research.

The Schroeder Center for Health Policy is made possible by a generous gift from Cliff and Lois Schroeder and was established to inform and educate decision makers on a wide array of health policy issues. The Schroeder Center is part of the Thomas Jefferson Program in Public Policy at the College of William & Mary.

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Over the past decade a number of provocative studies have reported that adult mortality rates *decline* during recessions. This suggests that rising unemployment may actually be good for population health. Evidence of this sort has been documented not only in the U.S., but also in Germany, France, Spain, and Sweden.^{1,2,3} Two recent contributions to the recessions and health literature show that most of the reductions in mortality associated with rising unemployment rates are among the age 65 and older population.^{4,5}

There are several possible explanations for the link between declining mortality and rising unemployment. A popular hypothesis is that reductions in mortality may result from declines in the “opportunity cost” of healthy living, since recessions appear to improve individuals’ physical health and to reduce unhealthy behaviors like smoking and physical inactivity. For example, when the unemployment rate is relatively high, people may have more time to exercise, prepare healthy meals at home, and sleep – the kinds of activities that lead to better health.⁶ However, most individuals aged 65 and older are retired and less attached to the labor market. This hypothesis does not seem to explain the large, unemployment-related, reductions in elderly mortality rates that have been documented recently.

This brief summarizes a new study that provides a comprehensive look at the effects of recessions on *seniors' health and health-related behaviors*. The new study, by economists at William and Mary’s Department of Economics and Schroeder Center for Health Policy, adds to the recessions and health literature by using data from a more recent time period that includes the beginning of the Great Recession. This study also extends the literature by focusing exclusively on the senior population given the importance of this age group in explaining prior patterns of procyclical mortality.^{4,5}

In their new study, Melissa McInerney and Jennifer M. Mellor re-examine the elderly mortality rate and its relationship to economic downturns using state-level unemployment and mortality data from as recent as 2008. McInerney and Mellor then use data from 15 years of a large survey of Medicare beneficiaries – the Medicare Current Beneficiary Survey or MCBS – to examine how health status, behaviors, and healthcare use among elderly individuals change during economic downturns. Their study is the first to use microdata to exclusively focus on how seniors’

This research brief reports on the findings from:

McInerney, Melissa and Mellor, Jennifer M. 2012. “Recessions and Seniors’ Health, Health Behaviors, and Healthcare Use: Analysis of the Medicare Current Beneficiary Study.” *Journal of Health Economics*, 31(5): 744-751.

<http://www.sciencedirect.com/science/article/pii/S0167629612000884>.

In contrast to prior research and in recent years that include the start of the Great Recession, senior mortality rates actually *increase* as unemployment rises.

health is affected by changes in unemployment rates. Previous studies on the relationship between recessions and health focus on the general adult population.^{1,6,7} McInerney and Mellor also explore how rising unemployment rates affect the *supply* of healthcare available to seniors using data from the Community Tracking Study Physician Survey. ■

New Research on Recessions and Seniors' Health

"Recessions and Seniors' Health, Health Behaviors and Healthcare Use: Analysis of the Medicare Current Beneficiary Survey," forthcoming in the *Journal of Health Economics*, examines both macro-level and individual-level data to provide a comprehensive picture of the relationship between recessions and seniors' health in recent years. McInerney and Mellor use multivariate regression models to determine the impact of unemployment on seniors' mortality rates, health outcomes, behaviors, and healthcare use while controlling for a large number of other influences such as age, education, marital status, and other individual and household traits, as well as state and year specific traits that affect health and health behaviors. Their research answers several questions about seniors' health and its relationship to state-level unemployment rates.

Are Senior Mortality Rates Procyclical in Recent Years?

Previous research showed that senior mortality rates decreased when unemployment rates increased during years 1978 to 1991 indicating that senior mortality follows a procyclical pattern.¹ Newer research by Stevens et al. (2011) examined state mortality rates from 1978 to 2006 and found that including more recent data reduces the effect of unemployment on mortality by nearly half, suggesting that the procyclical relationship between health and the business cycle is weakening.⁵

To examine this further, McInerney and Mellor use annual state-level mortality rates and state-level unemployment data from 1994 to 2008. This allows them to test whether procyclical mortality in the senior population exists in a more recent time period. They find that in contrast to prior research and in recent years that

include the start of the Great Recession, senior mortality rates actually *increase* as unemployment rises. Their results suggest that there is a robust positive relationship between unemployment and mortality that runs counter to prior published estimates.

Next, McInerney and Mellor turn to questions about how seniors' health status, health behaviors, and healthcare use respond to changes in state-level unemployment rates. For this analysis, they use microdata from the MCBS for a 15 year period from 1994 to 2008. The MCBS contains survey responses on demographic and household characteristics, residential location, general health, the presence of chronic conditions like smoking, and some measures of routine medical care for a large sample of over 16,000 Medicare beneficiaries in each year. The MCBS dataset also includes very accurate and detailed measures of healthcare utilization for each respondent defined from Medicare claims.

How Do Recessions Affect Seniors' Self-Reported Physical and Mental Health?

Previous research on large samples of working-aged adults suggests that physical health status *improves* during recessions. For example, (Ruhm, 2003) found that in adults aged 30 and older, higher unemployment rates led to fewer medical problems.⁸ McInerney and Mellor find different results in their analysis of Medicare beneficiaries' self-reports of physical health. Using two different measures of physical health, self-reported health status and whether health limits activity, they find that physical health among seniors *worsens* as the unemployment rate rises.

Previous studies find evidence that mental health in working-aged adults deteriorates during economic recessions. For example, Charles and DeCicca (2008) found that among less educated men, worsening labor market conditions led to reduced mental health.⁷ Consistent with these findings, McInerney and Mellor find that for seniors, a one percentage point rise in the unemployment rate is associated with a 5 to 12% increase in the likelihood of having a mental health diagnosis in the last year.

**Higher
unemployment
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How Do Recessions Affect Seniors' Health Behaviors?

Previous studies of working-aged adults suggested that health behaviors improve as unemployment rates rise. Ruhm (2005) showed that smoking and the likelihood of being obese decreases during recessions while physical activity and fruit and vegetable consumption increase.⁶ In contrast, McInerney and Mellor see some signs that health behaviors among seniors deteriorate during bad economic times. For example, they find that higher unemployment rates lead to an increased likelihood of being underweight. But they find no evidence of a reduction in smoking as unemployment rates rise. These results suggest that recessions and rising unemployment have little effect on the time the senior population has to devote to improving health behaviors.

How Do Recessions Affect Healthcare Use among Seniors?

Previous studies reported that rising rates of unemployment decrease routine medical care use and hospitalizations among the general adult population.^{1,8,9} This could be because job loss causes working-aged adults to lose employer-sponsored health insurance or to fear taking time off from work.^{10,11} Reductions in income from layoffs or reductions in work hours may also decrease demand for medical care among consumers.

In contrast, McInerney and Mellor find evidence that higher unemployment rates *increase* inpatient care utilization among the senior population. To explain why seniors use more healthcare during recessions, McInerney and Mellor next examine provider responses to falling unemployment rates in the Community Tracking Study Physicians Survey. Only one previous study in the recessions and health literature (Stevens et al. 2011) has examined the role of healthcare providers.⁵

Supply-side responses are important to examine in this case. Unlike privately-insured individuals, seniors covered by Medicare are less likely to lose coverage and unlikely to reduce demand for healthcare during recessions. McInerney and Mellor posit that economic down-

turns may ease capacity constraints on healthcare suppliers, allowing them to increase services provided to Medicare patients when demand by the privately-insured falls off.

McInerney and Mellor find evidence that higher unemployment rates do alter healthcare providers' behavior. Physicians are more likely to report that their practice accepts new Medicare patients when the unemployment rate increases. This finding helps to explain the increased utilization patterns that McInerney and Mellor observe in the MCBS. ■

Implications for Future Research

McInerney and Mellor present a comprehensive analysis of the effects of recessions on seniors' health, health behavior, and healthcare using recent data that encompasses the start of the Great Recession. Based on their findings, McInerney and Mellor point to three avenues for future research.

First, McInerney and Mellor find that in contrast to prior research showing that mortality rates decrease during recessions, elder mortality rates increased as unemployment rates increased during 1994 to 2008. Better understanding the change in the effect of unemployment on mortality is an important area for future research.

Second, McInerney and Mellor provide evidence that seniors respond to economic downturns differently than working-aged adults. Seniors' physical health status declines and their health behaviors do not improve as unemployment rates rise. These findings suggest that different mechanisms may drive senior health status and health behaviors during recessions. Future studies comparing the responses of both populations to the same economic shocks are needed to resolve this issue.

Finally, McInerney and Mellor show that, unlike working-aged adults, seniors use more inpatient care during economic downturns. Evidence of increased provider willingness to accept new Medicare patients during recessions may explain increased healthcare utilization among the Medicare population when unemployment rates rise. More research in this area could lead to a better under-

standing of variation in healthcare costs, as well as an understanding of how access to healthcare by seniors is related to healthcare demand by working-aged adults. ■

About the Study's Authors

Melissa McInerney is an Assistant Professor of Economics and a faculty affiliate of the Thomas Jefferson Program in Public Policy at the College of William & Mary. Professor McInerney holds a Ph.D. in Economics from the University of Maryland at College Park. In addition to several studies on the relationships between health, healthcare,

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Notes

- ¹ Ruhm, Christopher. 2000. "Are Recessions Good for Your Health?" *Quarterly Journal of Economics*, 115(2): 617-650.
- ² Ruhm, Christopher. 2007. "A Healthy Economy Can Break Your Heart." *Demography*, 44(2): 829-848.
- ³ Ruhm, Christopher. 2008. "Macroeconomic Conditions, Health, and Government Policy." In Robert F. Schoeni, James S. House, George A. Kaplan and Harold Pollack (eds.), *Making Americans Healthier: Social and Economic Policy as Health Policy: Rethinking America's Approach to Improving Health*. New York: Russell Sage Foundation, p. 173-200.
- ⁴ Miller, Douglas L., Marianne E. Page, Ann Huff Stevens, and Mateusz Filipowski. 2009. "Why Are Recessions Good for Your Health?" *American Economic Review: Papers and Proceedings*, 99(2): 122-127.
- ⁵ Stevens, Ann Huff, Douglas L. Miller, Marianne E. Page, and Mateusz Filipowski. 2011. "The Best of Times, the Worst of Times: Understanding Pro-Cyclical Mortality." NBER Working Paper No. 17657.
- ⁶ Ruhm, Christopher. 2005. "Healthy Living in Hard Times." *Journal of Health Economics*, 24(2): 341-363.
- ⁷ Charles, Kerwin Kofi and Philip DeCicca. 2008. "Local Labor Market Fluctuations and Health: Is There a Connection and for Whom?" *Journal of Health Economics*, 27(6): 1532-1550.
- ⁸ Ruhm, Christopher. 2003. "Good Times Make you Sick." *Journal of Health Economics*, 22: 637-658.
- ⁹ Lusardi, Annamaria, Daniel J. Schneider, and Peter Tufano. 2010. "The Economic Crisis and Medical Care Usage." National Bureau of Economic Research Working Paper 15843, Cambridge, MA.
- ¹⁰ Cawley, John and Kosali I. Simon. 2005. "Health Insurance Coverage and the Macroeconomy." *Journal of Health Economics*, 24: 299-315.
- ¹¹ Holahan, John. 2011. "The 2007-09 Recession and Health Insurance Coverage." *Health Affairs*, 30(1): 145-152.

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