

 Systems for Action

National Coordinating Center

Systems and Services Research to Build a Culture of Health

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New Research: Investing in Public Health May Reduce Medicare Spending

Investments in public health programs appear to reduce spending in the Medicare program, providing an economic benefit for seniors and the federal budget as growing numbers of baby boomers join program. Results from a [new study](#) published in the December issue of the journal [Health Services Research](#) by researchers at the University of Kentucky, suggest new directions for containing costs by aligning medical and public health programs.

Public health programs aim to prevent diseases and injuries within the public at large, such as those caused by tobacco smoke, poor nutrition, inadequate physical activity, contaminated food and water, or exposure to infectious diseases like influenza. Logic dictates that these programs, if effective, may reduce the need for costly medical care, particularly as people age and accumulate health problems. But research confirming the existence and the size of this effect, which economists and policy analysts call a “medical cost offset,” has not been available until now.

The new study tracks hundreds of U.S. communities over the period 1993-2013. The researchers measured the amount of money spent annually by local public health agencies in each community, and linked these data with measures of Medicare spending per beneficiary in the same local areas, along with detailed information on demographic, economic and community characteristics. Using an advanced statistical methodology known as [instrumental variables analysis](#), the researchers estimated how public health spending influenced Medicare spending over time, while controlling for other factors that tend to obscure the true causal relationship between these two types of spending.

The results show that Medicare spending per beneficiary fell by about 1 percent for each 10 percent increase in public health spending per resident, with even larger offsets observed in low-income and medically underserved communities. These findings suggest that the federal Medicare program could realize an average of \$1.10 in savings for each \$1.00 invested in local public health activities over time.

“Local public health agencies appear to generate important but largely hidden economic benefits for their communities, alongside the more visible health benefits,” said Glen Mays, a professor of health policy research at the University of Kentucky and lead author of the study. “Medical providers who participate in Medicare’s value-based payment models like [accountable care organizations and shared-savings programs](#) should explore the roles that public health agencies can play in helping to improve outcomes and contain costs,” he noted.

The study cannot rule out the possibility that other factors may contribute to the observed connection between public health spending and Medicare savings in local communities. For example, communities that choose to invest in robust public health programs may support other social and community resources that help to constrain Medicare spending, such as better housing and transportation options for seniors. Nevertheless, the study’s strong research design and analysis make this possibility less likely to affect the results.

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One challenge highlighted by the study's findings is the so-called "wrong pocket" problem that can undermine incentives to invest in public health programs. Many public health agencies are funded predominantly by state and local government contributions, but the Medicare savings generated by their work accrues to the federal government. Resolving this problem will require new models for public health financing, such as including public health agencies in Medicare's shared savings models.

The study was conducted as part of the Robert Wood Johnson Foundation's [Systems for Action](#) national research program, which studies new models for aligning the work of medical, social, and public health sectors in ways that improve health and wellbeing. The study appears in the December 2017 issue of [Health Services Research](#), in a special theme issue featuring research on the economics of public health services. For more information, contact professor Glen Mays at glen.mays@uky.edu

About the University of Kentucky: The University of Kentucky is the Commonwealth of Kentucky's flagship research and educational institution.