

The Effect of Medicare Prevention Benefit Expansion on Cancer Detection and Mortality: MK Hamer (PhD, CSPH), RM Myerson, CJ Bradley, RC Lindrooth, MC Perrailon. Health Systems, Management, and Policy, Colorado School of Public Health, Aurora, CO

Breast and colorectal cancers are leading causes of death in older adults. Early detection greatly improves survival. Yet in 2010, over half of adults  $\geq 65$  were not up to date on preventive services, including cancer screening. To address this, Medicare expanded prevention benefits through the Affordable Care Act (ACA) by: (1) eliminating cost sharing for prevention services; (2) introducing the Annual Wellness Visit; and (3) providing bonus payments to PCPs in health care shortage areas. The causal effect of these policy changes on cancer detection and mortality is unknown.

We use a difference-in-differences (DID) design to estimate outcomes before and after 2011 for a Medicare-eligible population over age 65. We compare to the near elderly (i.e., age 59-64) who were not affected by the policy changes. The validity of this design relies on the arbitrariness of age 65 as the Medicare-eligibility threshold. We model outcomes using negative binomial regression, controlling for time trends, effect of aging, and county-level factors (e.g., health care supply).

Our sample included 291,666 tumors and 442,974 cancer deaths in people age 59-70 from 2008-2013. Medicare's benefit expansion was associated with an increase in breast cancer detection (11.25/100k pop.,  $p=0.002$ ) driven by early-stage cancers (11.09/100k pop.,  $p<0.001$ ). There was no change in late-stage cancers or breast cancer mortality. There was no change in colorectal cancer detection, total or by stage. There was a small decrease in colorectal cancer deaths (-1.49/100k pop.,  $p=0.026$ ).

By encouraging and improving access to preventive services, Medicare's prevention benefit expansion increased early-stage breast cancer detection and decreased colorectal cancer mortality.