More primary care physicians leads to longer life spans, Stanford researcher says

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New research shows us just how important primary care physicians are in prolonging our lives.

Every 10 additional primary care physicians per 100,000 people in the United States was associated with a 51.5-day increase in life expectancy during the decade from 2005 to 2015, according to a study led by researchers at the Stanford University School of Medicine and Harvard Medical School.

By comparison, the researchers found that an increase of 10 specialists per 100,000 corresponded to only a 19.2-day increase.

"Greater primary care physician supply was associated with improved population mortality, suggesting that observed decreases in PCP supply may have important consequences for population health," the study said.

Nationwide, the researchers found that the number of primary care physicians has increased. However, disproportionate losses of primary care physicians in rural areas and overall population growth has led to a decrease in the density of PCPs per 100,000 people from 46.6 to 41.4 per in that same decade. Rural populations were particularly hard hit.

"Primary care physicians serve as the primary point of contact for most of the population and often perform preventive care, cancer screening and early diagnosis," said Sanjay Basu, MD, Ph.D., assistant professor of medicine and of health research and policy at Stanford.

The researchers' finding will be published Feb. 18 in *JAMA Internal Medicine*. Basu, a core faculty member at Stanford Health Policy, is the lead author. The senior author is Russell Phillips, MD, professor of global health and social medicine at Harvard.

Dramatic shortfall in near future

The Association of American Medical Colleges estimates the United States will see a dramatic shortfall of primary care physicians by 2030.

"Many believe that a well-functioning health care system requires a solid foundation of primary care," the study said. "Yet, persistent payment disparities between primary care and procedural specialties continue to erode the U.S. PCP workforce."

The researchers say that a lack of health care policies aimed at increasing primary care physician supply, compounded by market forces, have reduced the number of primary care physicians relative to higher-income specialties, such as cardiology and orthopedic surgery.

"There are few incentives to go into primary care among U.S. medical school graduates," Basu said. "Pay tends to be lower, burnout rates higher and prestige lower."

The researchers set out to identify the extent to which the number of primary care physicians might impact mortality—and to encourage policymakers to consider the importance of encouraging more medical students to become primary care physicians.

They defined primary care physicians as nonfederally employed physicians younger than 75 years old who are not hospital residents and whose major professional activity is outpatient care in general practice, family medicine, general internal medicine and general pediatrics in every U.S. county and the District of Columbia.

The primary care physician counts were obtained from the American Medical Association Physician Masterfile for the years 2005, 2010 and 2015, and population counts came from the U.S. Census Bureau.

Five major causes of death were considered: cardiovascular disease, cancer, infectious disease, respiratory disease and substance abuse or violence (such as death from alcohol and drug use, self-harm and interpersonal violence).

Bottom line

The association of PCP density with life expectancy was approximately one-fifth the magnitude of the association of poverty with life expectancy, and approximately two-thirds the magnitude of the association of tobacco with life expectancy.

Breaking that down to cause-specific mortality, the researchers found an increase of 10 PCPs per 100,000 people was associated with a 0.9 percent reduction in cardiovascular mortality, a 1 percent reduction in cancer mortality and a 1.4 percent decline in respiratory mortality.

"The surprising result was how much PCP supply has declined despite so much emphasis on primary care over the last decade," Basu said. "I think the problem comes down to money. We pay less for prevention than treatment—and the former is where primary care lives."

Basu believes another key benefit of the study is the methodology that was used.

"We tried to test whether this is just an 'association' at the area level, or more likely to be a causal connection," he said. "We looked at people who moved between ZIP codes and compared how their survival changed when moving to higher-PCP ZIP codes versus lower, controlling for other individual and area characteristics."

They found that those people who moved to ZIP codes with more primary care physicians had substantially higher survival rates, as much as 114.2 days per decade for every 10 additional primary care physicians per 100,000 people.

Basu laments that despite the clear correlation between better health and primary care, the number of primary care physicians is likely to continue

to decline.

"The passionate students who care about population health really want to go into primary care," Basu said. "But they also have serious education debts and are looking at the paychecks for fields like dermatology, ophthalmology or urology. They don't actually find those fields compelling, but the pay disparity is often just too much for them to take a low-level primary care job instead."

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