

Medical expansion has improved health—with one exception

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While Americans debate the rising cost of health care, a new study of 30 countries over 27 years found that medical expansion has improved overall health - with one major exception.

Researchers found that increased spending on [health](#) care and increases

in specialized care were both associated with longer [life expectancy](#) and less mortality in the countries studied.

But [pharmaceutical industry expansion](#) was linked to [negative health effects](#).

"This study isn't the first to suggest prescription drugs can pose a health risk. But it is the first to find that the growth of the pharmaceutical industry itself may be associated with worse rather than better health," said Hui Zheng, lead author of the study and associate professor of sociology at The Ohio State University.

"The findings were surprising to us."

Zheng conducted the research with Linda George, professor of sociology at Duke University. Their study is published in the March 2018 issue of the *Journal of Health and Social Behavior*.

The medical industry has undergone a massive expansion all over the Western world since the mid-20th century, Zheng said. In the United States, [health care](#) expenditures as a percentage of the gross domestic product increased from 5.1 percent in 1960 to 17.1 percent in 2014.

But it has been unclear whether this expansion has benefited overall public health.

To help answer this question, the researchers used data from 30 countries, including the United States, that are members of the Organisation for Economic Co-operation and Development. This includes most of the world's affluent democracies.

Zheng and George looked at how different types of medical expansion were related to population health between 1981 and 2007. Specifically,

they linked expansion to life expectancy at birth; men's and women's life expectancy at age 65; and all-cause mortality rate.

They controlled for a variety of social, economic and demographic variables that also might account for relationships between medical expansion and health.

Medical investment, pharmaceutical expansion and medical specialization increased over time for virtually all 30 countries, although the amount of increase varied substantially, Zheng said.

The United States had the largest increase in medical investment and a steep increase in pharmaceutical expansion, but one of the flattest trajectories over the 29 years in the increase of medical specialization.

All three types of medical expansion were associated with two or more indicators of population health, results showed.

Increased medical investment and increased medical specialization were related to growth in all three life-expectancy measures and a decrease in overall mortality.

Two measures of expansion in the pharmaceutical industry - increased sales and more money spent on research and development - were linked to lower life expectancy among women aged 65 and older, and with increased mortality rates. The pharmaceutical measures were not associated with the other health outcomes studied.

The researchers ran tests to confirm that it wasn't the other way around - that lower life expectancy and increased mortality were causing an expansion of the pharmaceutical industry. But that wasn't the case.

That wasn't the only negative finding about the growing drug industry.

"We found that as the pharmaceutical industry expands, there is a decrease in the beneficial impact of medical specialization on population health," Zheng said.

This study can't say why expansion in the pharmaceutical industry is leading to negative [population health](#) effects, Zheng said.

"It could be due to toxic side effects of drugs, doctors' prescribing practices, patients' misuse of prescription drugs, reasons related to pharmaceutical [industry](#)'s marketing strategies or some combination of these factors," he said.

He said they plan on studying this issue further.

What do the results mean for the United States?

"We can debate whether the increasing costs of health care in the United States are reasonable, but our study suggests it is associated with longer life overall," he said. "However, it may be that we're spending too much on some kinds of health care and not enough on others. We need to study that further."

More information: Hui Zheng et al. Does Medical Expansion Improve Population Health?, *Journal of Health and Social Behavior* (2018). [DOI: 10.1177/0022146518754534](#)

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