

# New study finds flaws in mortality projections

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A new study by demographer John Bongaarts, Population Council Vice President and Distinguished Scholar, has found that mortality projections from most low-mortality countries are more pessimistic than they should be. The reason for this flaw is that existing projections fail to recognize that fewer people smoke today than used to. As a result, there will be a future decline in smoking-related mortality. This suggests that with more people living longer, pension and health care costs in coming decades will likely be higher than previously estimated.

A country's future [mortality](#) trajectory has important implications for health and social policy, especially in countries with aging populations where pension and [health care costs](#) are rising steeply.

Developed countries—such as the United States, Japan, and most countries of Europe—often have government agencies that make mortality projections (e.g., the Actuaries of the Social Security Administration in the US), and the United Nations Population Division makes projections for 238 countries and regions. All current mortality projections foresee substantial increases in future [life expectancy](#). However, Bongaarts finds that the increases in life expectancy are likely to be even greater than current estimates suggest.

Nearly all methods for projecting mortality ignore trends in causes of death. Rather, they rely wholly or in part on extrapolation of past trends in [mortality rates](#), longevity measures, or mortality models. Bongaarts examined whether mortality projections could be improved by taking

into account trends in smoking. He focused on trends in death rates and causes of death in 15 countries with high life expectancy and reliable data on causes of death: Australia, Austria, Canada, Denmark, Finland, France, Italy, Japan, the Netherlands, Norway, Spain, Sweden, Switzerland, the United Kingdom, and the United States. Bongaarts studied [mortality data](#) gathered between 1955 and 2010.

A problem arises because most mortality projection methods ignore the past rise and the likely future decline in smoking-related deaths.

"Making explicit adjustments for the distorting effects of smoking is likely to improve the accuracy of projections," says Bongaarts.

Bongaarts did not find that it would be possible to improve mortality projections by making adjustments for other causes of death. Unlike other causes of death, future trends in smoking mortality can be predicted with a high degree of certainty.

"Worldwide, we are making notable progress in reducing the number of people who smoke," says Bongaarts. "This not only has immediate health benefits, but also long-term public policy implications. To adequately prepare for longer-living older populations, countries must take smoking trends into account."

**More information:** The study, "Trends in Causes of Death in Low-Mortality Countries: Implications for Mortality Projections," is included in the June 2014 issue of *Population and Development Review*, a journal published by the Population Council. It is now available free of charge: [onlinelibrary.wiley.com/doi/10 ... 457.2014.00670.x/pdf](http://onlinelibrary.wiley.com/doi/10...457.2014.00670.x/pdf).

Provided by Population Council

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