

WHO's math doesn't add up for developing world

June 6 2011, By Keith Rozendal

Medical school researchers warned last month that one of the most widely trusted sources of data on global health could be mistaken, leaving countries ill-prepared to deal with the economic and health-care burdens of aging populations.

“We could be getting something really wrong on chronic diseases for older people,” said Benjamin Seligman, a medical school student and lead author of the study appearing May 24 in *PLoS One*.

Since 1996, the World Health Organization has organized [global health](#) statistics in a publication called the Global Burden of Disease. More than 90 countries lack reliable data on births and deaths, forcing the WHO to calculate estimates for these basic health statistics, which appear in the book. Many health agencies in poorly resourced countries rely upon these estimates to plan for the future [health-care](#) needs of their citizens.

“These estimates are created based on data from rich countries,” said Seligman. “It’s an open question whether they really represent what’s going on in modern [developing countries](#).”

Seligman, along with co-authors Mark Cullen, MD, a Stanford professor of medicine, and Ralph Horwitz, MD, former chair of the Department of Medicine and now with GlaxoSmithKline, turned to the Human Mortality Database, a collection of international population records known to be reliable, to check whether the Global Burden of Disease formulas when applied to these data retroactively would produce

numbers that matched the observed historical patterns of births and deaths.

The team assembled data from 37 countries, generally those with the highest level of development today, focusing on the period between 1900 and 2000. The researchers reasoned that the rapid changes sweeping developing countries today — such as people moving to cities and changing lifestyles — resemble the forces that swept through the countries in their data set during the 20th century. This would provide a good test for how well the WHO methods work during times of rapid social change.

“If the model can capture that kind of change in rich countries, then we would feel better about how it works in modern developing countries,” said Seligman. “But the model didn’t accurately estimate survival at older ages. After 1970, the formulas substantially overestimated the number of deaths among those 60 to 80 years old. Survival actually got better.”

This means relying upon the Global Burden of Disease statistics may saddle already poor countries with an unexpectedly large [population](#) of elders, many requiring expensive health care for chronic diseases that strike late in life. Seligman hopes a correction to the WHO estimates now will prevent these developing countries from being caught flat-footed in the future. He also hopes it will spur these countries to collect complete records of births and death to better divine the health-care challenges to come.

“If we had better vital statistics — even just the age of death — those countries would have a much clearer picture of how to prepare their health-care systems,” he said.

More information: www.who.int/healthinfo/global_burden_disease

Provided by Stanford University Medical Center

Citation: WHO's math doesn't add up for developing world (2011, June 6) retrieved 6 May 2024 from <https://medicalxpress.com/news/2011-06-math-doesnt-world.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.