Improving the collection of birth and death data worldwide

March 10 2020

University of Melbourne researchers have identified and implemented the key interventions and tools that countries can—and should—use to improve the quality and availability of critical birth and death data and ultimately, improve health outcomes.

Published in *BMC Medicine*, it is the first Civil Registration and Vital Statistics collection to report on experience in implementing technical interventions over the first four years of the Bloomberg Data for Health Initiative.

Across the world, about 40-50 per cent of all deaths are unrecorded and millions of deaths do not have a documented cause.

Over four years, University of Melbourne researchers have worked with low and middle-income countries through the Bloomberg Data for Health Initiative to help them improve the collection of birth and death data. This increases understanding about the leading causes of premature death and can be used to inform public health policy and preventive action.

"People live longer if they benefit from informed, targeted public health action and policies, and that means we need to know reliably what people are dying from," said University of Melbourne Professor Alan Lopez, report co-author and expert on the global burden of disease.

As part of the Initiative, researchers have conducted the first ever multi-

country assessment of medical certification improvement strategies designed to improve the accuracy of diagnoses by doctors in hospitals.

Accurate and timely completion of the medical certificate of cause of death should be a relatively straight forward procedure for physicians, but researchers say mistakes are common.

Researchers found a reduction in incorrectly completed certificates of between 28 per cent and 43 per cent is possible, depending on training—training the trainer, direct training of the physician or online training.

The results indicate that a variety of training strategies can produce benefits in the quality of certification, but further improvements are possible.

Other recommendations include using automated verbal autopsy methods. Using a digital tablet and a 20-minute questionnaire, interviewers ask friends and family about the signs and symptoms present before the person died.

Results reported in the journal demonstrate this simple, cost-effective data collection method can produce reliable cause of death information for community deaths for which little was previously known.

Researchers are now calling for parallel investments in critical health information systems to accelerate progress built on lessons learned.

"Knowing how many people are born each year, how many are dying and from what causes, is vital to tackling public health problems, ongoing population planning and developing policies," report co-author and University of Melbourne Associate Professor Deirdre McLaughlin said.

"Our research provides evidence-based interventions that countries can use to strengthen vital statistic systems and improve their record keeping.

"Further funding and support are needed to enable low and middle-income countries to implement these recommendations, improve global health data and ultimately, health outcomes."

This *BMC Medicine* collection was led by the Global Burden of Disease Group at the Melbourne School of Population and Global Health, University of Melbourne, Australia. It draws upon experiences of countries involved in the Data for Health Initiative, supported by Bloomberg Philanthropies and the Australian Department of Foreign Affairs and Trade.

More information: Daniel Cobos Muñoz et al. Better data for better outcomes: the importance of process mapping and management in CRVS systems, *BMC Medicine* (2020). DOI: 10.1186/s12916-020-01522-z

Provided by University of Melbourne