CARTOGRAMS

## DEATH NOTES

## **BY BENJAMIN HENNIG**

With global life expectancy rising continuously and fertility rates falling steadily, the world's population is slowly ageing. Both trends have led to a shift in the age at which people are dying. In 2015, approximately 8.5 per cent of the world's population was estimated to be aged 65 and above.

The Global Burden of Disease study has become a major milestone project in analysing and better understanding global health trends. It comprises comprehensive datasets

about the causes and ages of mortality and their geographical distribution. Among the positive findings of the most recent study, published in 2015, was a ten-year rise in global life expectancy between 1980 and 2015, and a decline in deaths due to infectious and nutritional causes as well as maternal and child deaths.

While overall trends look positive, problematic developments can be observed in regions affected by conflicts. In addition, there are still prevailing geographical inequalities that show the importance of health-related actions within the Sustainable Development Goals.

The main cartogram above shows the distribution of deaths that occurred in 2015 (estimated between 55 and 56.6 million). Each country is resized according to the estimated amount of deaths that occurred there. The colours differentiate the main world regions according to the United Nations geoscheme to allow for a better orientation in the maps.

When further distinguishing where people die at different ages, these patterns become an indicator for existing global inequalities in health. Overall, the number of people dying at a certain age increases within the different age bands. The bar chart above shows that after relatively high child mortality (below the age of four, contributing to three per cent of the deaths worldwide), the numbers of people who have died in 2015 starts relatively low at low ages and then continuously grows, with the largest share of people (29 per cent) having died at the age of 80 and above. Approximately half of the people who died lived beyond the age of 70 which shows the improvements that were made in achieving longer lives.

The three smaller cartograms show that the ages at which people died have significant geographical imbalances. Child mortality remains a major problem in sub-Saharan Africa and southern Asia. However, the underlying data also suggests that progress on reducing under-five mortality is accelerating.

These patterns change gradually when looking at mortality of young adults (age 25 to 29). Now high-income countries become visible where road accidents, mental health and substance use disorders play their part. However, low and middle income countries still dominate the overall picture indicating deficits in the provision of healthcare here. To complete this picture, the mortality of

elderly people (age 80 and above) shows the high-income countries most prominently.

Perhaps most striking in this map series is the role of India and China. India features prominently in all four of the cartograms and has smaller shares of deaths in high age groups, while almost the opposite is true for China. The comparison of these two most populated countries shows the different demographic developments at play there as well as the different stages of economic development. These are a mirror of the prevailing unequal global trends in ageing and dying.

An improved understanding of trends in mortality provides us with the knowledge and tools to identify the existing problems and to develop strategies that address the underlying causes leading to the observed inequalities shown in these maps.

Benjamin Hennig (@geoviews) is Associate Professor of Geography at the University of Iceland and Honorary Research Associate in the School of Geography and the Environment at the University of Oxford. He is involved in the Worldmapper project and is author of www.viewsoftheworld.net.

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