

THE CONVERSATION

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Without good data, Africa will find it hard to fight non-infectious diseases

AUTHOR



Davies Adeloye

Epidemiologist and PhD candidate at University of Edinburgh



Slower activity. Abaporu, CC BY

Non-communicable diseases that you can't catch from someone else such as stroke, high blood pressure and cancer, account for **36.1m deaths worldwide**. Put it another way, this is about 63% of all deaths in the world. While the West is familiar with contributory factors including smoking tobacco, drinking too much alcohol and inactive lifestyles, the vast majority of the global burden (80%) falls in the developing world, and Africa in particular, where rapid urbanisation, population growth and ageing is driving up the number.

Current projections suggest that **without action** this will rise to 52m by 2030. Deaths from these types of diseases in Africa are also now projected to exceed those from infectious and nutritional diseases, and maternal and perinatal conditions by 2030. But there is wide speculation that the burden may actually be higher than has been reported.

Most published reports on non-communicable diseases (NCDs) are based largely on the number of deaths and disabilities rather than actual annual number of **people living with the disease**. A major gap in Africa is the lack of data – and this has affected the conduct of research on the prevalence of NCDs. For the few estimates on Africa that we do have, there are doubts about sources and the appropriateness of the methods; for example which countries are included in which studies. The question is whether these estimates can closely be said to reflect the entire African population? **Some experts believe** these estimates are based more on extrapolation and over-modelling of the scarce data in the region – which means the answer would be no.

A series of studies we conducted at the University of Edinburgh involved a systematic search of the literature on major NCDs in Africa on stroke, chronic obstructive pulmonary disease (COPD), high blood pressure (hypertension), asthma, and colon cancer. We found ample evidence of a relationship between age and the prevalence of chronic disease, with the middle to older age groups more affected. This is no surprise. In Africa, people are now more mindful of their health than they used to be, so they now tend to seek better health services. Consequently, average life expectancy has been increasing. But as people live longer (with unchecked exposures to smoking, alcohol, sedentary lifestyles, salt and cholesterol consumption) the number of people with NCDs in the region may possibly increase.

We then developed an epidemiological model based on the age of the population and UN population estimates for Africa, which accounted for population growth and ageing earlier noted. Our estimates suggested a higher prevalence of NCDs in Africa and therefore that official figures are an underestimation.

For example, in 2010, we estimated that there were about 130.2m cases of hypertension (25.9%) in Africa in people aged over 20 and 483,000 new stroke cases and 1.89m stroke survivors (around 317 per 100,000 of the population) in people aged over 15. There were also 26.3m cases of COPD (13.4%) in people over 40, 49.7m (13.9%) children under 15 with asthma, and more than 23,000 cases of colon cancer. These figures are significantly higher than have been previously reported. For example, WHO African region reported that there were 20m people living with hypertension in 2005, but this is far below the 92.3m cases we estimated for Africa for 2000.

We still cannot say with all certainty that these are the exact estimates of these NCDs in Africa, because we simply don't have enough data. Estimates at national and regional-level of prevalence and number of cases in Africa are few, partly because of poor health information and management systems across many countries. This has also been further affected by governments' policies, priorities and funding that are weighted towards infectious diseases, notably HIV/AIDS, malaria, tuberculosis, and in recent times, Ebola virus disease.


Obviously, the burden of infectious diseases may be decreasing, with the availability of vaccination and other control measures in Africa, but not without a relative rise in NCDs burden because of how funds are allocated and other factors. Instead, both infectious disease and NCDs now act as a "double burden" on the continent.

To get better population estimates, we ultimately need better research. As NCDs are a clear problem in Africa, we would hope African nations would add this to their list of priorities in health. Without better figures, it will be hard to make better policies in response to the problem.

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