

## EDITORIAL

# Global response to non-communicable diseases—the role of epidemiologists

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It is well documented that non-communicable diseases (NCDs) carry an increasing burden of the diseases and mortality in affluent and poor countries.<sup>1</sup> NCDs amount to ~60% of all deaths in the world, and ~80% of these occur in low- and middle-income countries (LMICs). Cardiovascular diseases and chronic obstructive diseases are expected to increase rapidly in many LMICs, and NCDs are a major cause of poverty, loss of productivity and quality of life worldwide.

Much is known about preventable causes of NCDs, and several actions are sufficiently well documented to be implemented now.<sup>2–4</sup> However, one should keep in mind that much of the research stems from affluent countries, and implementing actions requires local knowledge and sometimes also research. Epidemiologists, with experience in community intervention trials, have an important role to play here.

It is also important to monitor disease occurrence over time and be prepared to act on monitoring signals. We all need to see if prevention programmes are on the right track, and if they have unintended positive or negative effects. Diseases, especially NCDs, often have many causes that operate in concert to trigger effects. This mix of component causes will differ in different countries, and preventive strategies have to take this into consideration. For example, several studies indicate that the health consequences of obesity or vaccination programmes are influenced by genetic factors and differences in exposure to infectious agents.<sup>5–7</sup> Epidemiologists should make sure changes do not do more harm than good and that they do as much good as they can with the available resources.

It is obvious that preventive actions are often linked to strong financial interests. For example, advocating

a certain diet, preventing smoking and preventing excess alcohol intake may benefit some producers and harm others. Epidemiologists should be the ones who can keep the process on a track that is not influenced by financial interests unrelated to public health. Those in charge of running the programme should only be guided by population-based evidence and not economic interests.

It is unfortunate that many countries, especially the lowest income countries, have few trained epidemiologists. To provide research in these regions, the *IJE* has introduced a new section of the journal called 'Global Status of Epidemiology', with a recent article from the South East Asian Region.<sup>8</sup> We suggest that universities with a good track record in epidemiological research in LMICs and other organizations prepare to scale up their training of health professionals and others in epidemiology. It is important that this training programme takes place in low-income countries or at least is based on examples of relevance for these countries. For educational programmes to work, LMICs need a career track system for those who receive training at a master's level or higher. It is a waste of good resources to train PhD students in epidemiology, if they all end up in administrative positions.

A formal structure is needed to coordinate and develop these activities, and some countries, possibly in consultation with WHO, should consider placing a research and documentation centre in an LMIC with a mandate to coordinate training and monitoring and to do research on some of the larger and most ambitious activities. Epidemiologists, clinicians and basic scientists should work together with the overall aim of preventing the early onset of NCDs all over the world, including middle- to low-income countries.

## References

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