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Preventing cardiovascular disease in Africa – we must act now

“Non-communicable diseases have been a silent killer for too long. They are a major cause of poverty, a barrier to economic development, and a serious threat to achievement of the Millennium Development Goals (MDGs). The 9 million deaths such diseases cause in people younger than 60 years of age each year in low-income and middle-income countries, represent nothing less than a development emergency in slow motion. If governments and aid agencies continue to ignore this threat, we will sleepwalk into a future in which healthy people will be in a minority, obese and unhealthy children die before their parents, and economic development and already vulnerable health systems are overwhelmed.” The NCD Alliance⁽¹⁾

A tsunami of non-communicable diseases (NCDs) such as cardiovascular disease, diabetes, chronic respiratory disease and cancer is threatening to engulf Africa. Globally, the vast majority of NCD deaths occur in low- and middle-income countries placing a significant burden on the world's poor. In 2004, one-quarter of all deaths in sub-Saharan Africa were due to NCDs; by 2030 this figure will rise to almost half.⁽²⁾ Age-standardised death rates from NCDs are already higher in some African countries (the Democratic Republic of the Congo, Nigeria, Ethiopia and South Africa) than in high income countries.⁽³⁾ NCDs share several modifiable risk factors, in particular unhealthy diets, tobacco use, physical inactivity and excessive use of alcohol. This presents an opportunity for action to limit the profound human and economic costs of NCDs predicted for African countries already reeling under the weight of infectious diseases and injuries. A concerted, multi-sectoral and sustained effort will, however, be required which must be implemented without further delay.

Recognising the threat chronic NCDs pose to health and development, the United Nations will, in six months time, convene a meeting of the General Assembly in New York to discuss this issue.⁽⁴⁾ This high level summit aims to place NCDs on global and national agendas and stimulate political commitment that will (it is hoped) lead to partnerships, strategies and funding to support NCDs programmes around the world. The current issue of SA Heart, focusing as it does on prevention of cardiovascular disease (CVD) in Africa, offers a valuable contribution to the dialogue around the control of NCDs, in the run-up to the UN meeting.

Laurence et al. draw attention to the vanishingly small body of high end epidemiological research with a direct bearing on CVD prevention. The authors point out, for example that no population-based, prospective studies of risk factors for first episodes of acute myocardial infarction or stroke have so far been conducted in any African country. CVD risk factors in Africa are likely to be similar to those in the West, as demonstrated by Pieters and colleagues in their case control study of risk factors for myocardial infarction in black South Africans. However, it is still not clear how the relative contribution of individual risk factors for CVD in Africa compares with that found in the Western world, and whether there are yet unidentified environmental or genetic factors that may be particularly important in African populations.

Norton and Woodiwiss contend that hypertension is the dominant CVD risk factor in Africa. They argue that lifestyle changes aimed at limiting salt intake and reducing body weight are key to reducing the burden of CVD, a benefit that may be mediated through effects on central rather than brachial blood pressure. Pisa et al. taking a wider view of the link between nutrition and CVD risk, highlight the contribution of the nutritional transition from a traditional to a more Western diet (and other associated factors) and call for the development and implementation of Africa-specific food-based dietary guidelines.

The most effective long-term strategy for stemming the oncoming tidal wave of NCDs (including CVD) will undoubtedly involve measures that reduce the population average of relevant risk factors.⁽⁵⁾ Accordingly, Maredza et al. stress the importance of a population-wide approach supported by improved legislation and reorganisation of health services to cope with the changing burden of disease. Efforts targeted at high risk individuals, however, remain an important part of prevention. Lancaster's paper supports this notion by providing evidence for the effectiveness of a range of interventions offered by doctors to help patients who smoke quit the habit, showing that even measures as simple as giving advice can be highly cost-effective.

While broad-based preventive programmes are being implemented, steps should at the same time be taken to ensure they are informed by sound evidence. There is a critical need for reliable data on the true incidence of CVD in Africa. This need will not be addressed through hospital-based studies, but by research that also takes into account people who do not access health services. Carefully designed, prospective studies conducted in well-defined populations will help shed light on the role of known and unknown risk factors for CVD. The African setting provides an ideal opportunity to study interactions between communicable and non-communicable diseases, including the impact of chronic infections on the incidence of CVD. Further, Africa's genetic diversity offers a potentially fruitful line of exploration that could substantially improve our understanding of disease risk. Lastly, randomised trials of interventions for both prevention and treatment of CVD are encouraged as these could provide important data for local priority setting.

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