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Current status and future prospects of epidemiology and public health training and research in the WHO African region

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We read with great interest the article by Nachega and colleagues on the current status and future prospects of epidemiology and public health training and research in the World Health Organization (WHO) Africa region.[1] We very much agree with the authors that epidemiology and public health training at the master's, doctoral, and postdoctoral levels in academic institutions linked with regional or national centers of research excellence in Africa is key to ensuring that Africa becomes self-sufficient in epidemiological research and education. However, and particularly with regard to the development of intermediate and advanced epidemiology and public health education and training programs in sub-Saharan Africa over recent years, a more comprehensive review of these activities would allow recent experience to inform priorities in research training in the WHO Africa region.

As one example, we would like to highlight the case of the epidemiology and public health training at the School of Public Health of the University of the Witwatersrand in Johannesburg, South Africa (WSPH). The WSPH established and subsequently developed internationally recognised and sustainable degree training programs in public health and epidemiology on the masters- and more recently on the doctoral-degree level, providing basic, intermediate, and advanced theoretical training combined with hands-on experience and on-the-job training as part of its training curriculum. Since inception of the masters degree programs in public health and epidemiology with international seed funding, the programs have been very well evaluated and have produced graduates progressing to doctoral and postdoctoral training and taking on senior positions in research and academia.[2] To date, the epidemiology program offers qualifications in epidemiology and biostatistics, population-based field epidemiology and infectious-disease epidemiology, and is currently preparing for a degree in research-data management in collaboration with the International Network for the Demographic Evaluation of Populations and Their Health (INDEPTH network) to facilitate INDEPTH's epidemiological activities.[3] Growing interest in relation to rising rates of chronic disease was addressed by introducing a curriculum and short course in chronic disease epidemiology focusing on transitional societies in low- and middle-income countries to advance research and training for non-communicable diseases. Similar activities in response to African training needs have been reported for the masters degree in public health program, and stimulated the development of an interdisciplinary doctoral-degree program in public health at the WSPH and beyond through the Consortium of Advanced Research Training in Africa, embedding graduates in interdisciplinary international research consortia with a particularly African focus.[4–6]

Taken together, exemplary activities at the University of the Witwatersrand, most likely mirrored by activities elsewhere in Africa, have demonstrated the ability of institutions in the south of Africa to develop and integrate training programs into university curricula. These were made sustainable by investment from the university and by government investment in higher education. Working together, both in south–south and north-south partnerships, has allowed the development of both breadth and depth in the content and supervisory capacity of these programs so as to permit them to offer relevant training linked to real-world situations in which graduates will work. Direct investment in African institutions is thus fundamental to developing African capacity not only in epidemiology and public health for the creation of nodes of excellence so as to counteract 'brain drain', but also to address the current and future health challenges on the African continent.

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