International Journal of Public Health (2018) 63:1011–1012
https://doi.org/10.1007/s00038-018-1137-z

EDITORIAL

Aging, non-communicable diseases, and old-age disability in low- and middle-income countries: a challenge for global health

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Received: 22 March 2018 / Revised: 29 May 2018 / Accepted: 21 June 2018 / Published online: 28 June 2018

The growth rate of the population aged 60 years and over is about three times faster in less developed countries than in more developed countries (Chatterji et al. 2015). This is a remarkable success story, reflecting declines in mortality and improvements in longevity resulting from major health-care efforts in low- and middle-income countries (LMICs). However, this unprecedented growth of the older population increases prevalence rates of non-communicable diseases (NCDs) and of old-age disability (United Nations 2011), creating demands that many health systems are currently not equipped to meet.

Responding to these demographic and health trends will be particularly challenging in LMICs, where many mature adults have been exposed to adverse economic and health environments for most of their lives. Cumulative exposure to poverty, infections, and other disease risks is likely to take a toll on the health of these older adults. Furthermore, the coexistence of infectious disease and NCD burdens in severely resource-constrained health systems makes it challenging to implement effective, yet economically feasible responses to population aging (United Nations 2011; Ebrahim et al. 2013). As a result, LMICs can be trapped in a vicious circle in which poor health, resource scarcity, and health system deficiencies aggravate the NCD burden, which, in turn, causes major barriers to economic and social development. The achievements of the Millennium Development Goals (MDGs) and the potential of the Sustainable Developments Goals (SDGs) are at risk if the unfolding NCD epidemics in LMICs are not addressed with some urgency (United Nations 2011).

Faced with this critical confluence of aging and epidemiological transition (Murray et al. 2012; Lim et al. 2013), national health strategies in LMICs have started to rise to the challenges posed by NCDs, which presents a growing need to collect data and assemble evidence to guide policy responses (Ebrahim et al. 2013; Suzman et al. 2015). While the interplay between aging, NCDs, disability, and socioeconomic outcomes is relatively well documented in more developed countries—thanks to the availability of internationally comparable multi-disciplinary longitudinal health and retirement studies (Piggott and Woodland 2016), such as the US Health and Retirement Study (HRS), the Survey of Health, Aging and Retirement in Europe (SHARE), or the WHO Study on Global Ageing and Adult Health (SAGE)—corresponding data from less developed countries are still very sparse (Chatterji et al. 2015).

Recognizing the pressing need for high-quality longitudinal data and for evidence of the impacts of NCDs and disability on socioeconomic outcomes in the developing world, the Swiss Programme for Research on Global Issues for Development (r4d) launched a public health module in 2014. The module aims to deliver research findings to guide policy makers toward sustaining health gains while addressing the emerging challenges of aging and epidemiological change in LMICs. One r4d project in this public health module has helped to implement high-quality HRS-style data collection in India, Sri Lanka, the Philippines, and Malawi, with a focus on mature adults and NCDs.

This Editorial is part of the series "Young Researcher Editorial", a project of the Swiss School of Public Health (SSPH+).

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To better understand the health problems of older adults globally, and to facilitate appropriate health and social policy responses, research must focus on developing instruments that produce reliable measurements of health that are comparable across countries. Such measurements would permit comparative analyses of the determinants of mature adults' health and well-being in LMICs and allow countries to learn from the experiences of others. Functional assessments, such as grip strength, along with biomarkers obtained, for example, from blood pressure measurement and analyses of dried blood spots, are important tools for obtaining reliable and comparable health assessments. Collection of such measures in the r4d project will allow comparison of objective markers of functioning and health in LMICs with similar data from high-income countries, obtained from surveys such as HRS and SHARE. Comparison will enable assessment of how life course exposures to disadvantage, along with inadequate disease prevention, diagnosis, and treatment, affect the aging and health of mature adults in LMICs. By expanding the family of HRS-type studies to include less developed countries, the r4d programme will expand knowledge of the relationship between NCDs and socioeconomic outcomes at different levels of economic development. More broadly, it will contribute to the collection of comparable health and aging data across countries that facilitate international comparisons and learning from the experience of others (Chatterji et al. 2015; United Nations 2010).

To tackle the global issue of aging and the growing burden of NCDs, a harmonized approach is essential. Of course, appropriate health system responses must be country specific and respect local context, but cross-country comparisons and best practice cases can often help initiate and refine policy responses to mitigate the challenges of aging and NCDs in a particular low-income setting.

Acknowledgements Authors have received research grants from the r4d programme (Grant Number 400640_160374).

Funding This study was funded by the r4d programme, a joint initiative of the Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation (SNSF) (Grant Number 400640_160374).

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