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Towards a global agenda on ageing

There is increasing concern and research around the health issues of ageing, not least because of the increasing proportion of older people in many populations (1). However, while it is widely recognised that more developed countries are encountering an increasing "burden" of elderly people, a more global perspective is often lacking (2). This partially reflects gaps in the global data, which mean that the details of ageing in many contexts are poorly documented, as highlighted by HelpAge International (3). Many other concerns about ageing relate to possible future gaps in pension provision as a result of demographic changes (4).

The numbers behind the global situation, though, clearly show that issues of ageing are by no means restricted to more affluent settings (5). Using the UN population estimates (6), characteristics of the global population in 2010 by level of development are illustrated in Fig. 1. The world's over-60 population is 0.8 billion, 11% of the total. While the overall shape of this population pyramid is perhaps unsurprising, there are several points to note. It is only among the over-85 age group that the elderly of the more developed countries out-number those of the less- and least-developed countries. The over-80s account for 14% of the over-60s.

Interesting as this contemporary situation may be, it also has to be recognised that it is far from static. Fig. 2 shows the UN's projected developments in the world's population by 2050. By this time, only in the over-95 age group will there be a majority from more developed nations. The world's over-60 population will be 1.4 billion, almost 18% of the total. The over-80s globally will account for 20% of the over-60s. Thus, it becomes clear that, in the global context, the proportion of elderly people who live in more developed countries will decline sharply. The difference in the shape of the 2050 pyramid compared with 2010 basically reflects the upward shift of an increasingly large proportion of the population over time, with some of the biggest changes seen in the less- and least-developed countries.

The role of the elderly within any population depends on many interlinked factors, including social determinants, financial concerns, familial structures and cultural norms, all of which impact on the health and well-being of older people. Favourable trends hence lead to longer survival, hopefully associated with continuing good quality of life. The concept of "successful ageing" (7)

thus attempts to create a more constructive paradigm around growing older, as opposed to problematising the ageing process.

What are the health problems globally that mitigate against successful ageing? Much emphasis is rightly given to increasingly high rates of non-communicable diseases as causes of mortality among the elderly (8), and it is inevitable as life expectancy increases that the incidence and prevalence of those diseases that predominantly affect the elderly will also increase. But at the same time, the elderly retain their vulnerability to infections, particularly in environments where widespread epidemics may occur. Emmelin et al.'s detailed account of the impact of abnormal weather patterns on a rural Ethiopian population (9), leading to food shortages and major mortality peaks relating to malaria and diarrhoeal diseases, clearly demonstrates that the elderly may be just as vulnerable as the youngest in such epidemics (Fig. 3).

It is also very important to avoid the fallacy of assuming that relatively low life expectancy at birth reflects low survival among the elderly. To take two fairly extreme examples, Ethiopia and Sweden, UN estimates of life expectancy at birth for the period 2000–2005 were 50.7 and 80.1 years, respectively (10). Nevertheless, survival curves from the age of 60 from Swedish national statistics (11) and the Butajira Rural Health Programme in Ethiopia (12) (Fig. 4) show that survival differences among the elderly in these two very diverse settings are not so great. However, what Fig. 4 does not show is that in Sweden 93% of babies born can expect to reach their 60th birthday, while the corresponding figure in Butajira is just 52%. Thus, the current levels and projected increases in the numbers of elderly people in less- and least-developed countries are related more critically to the number of people entering old age, rather than the survival experience of elders. Hence, at least from a survival perspective in the global context, "successful ageing" might more accurately be described as "successfully joining the elderly".

In terms of research agendas on ageing, there are also significant global disparities. Apart from the relative lack of research on ageing in poorer settings, some research hypotheses and methods are mainly focussed on more developed settings. Current advances and discoveries around genetic and other biomarkers associated with
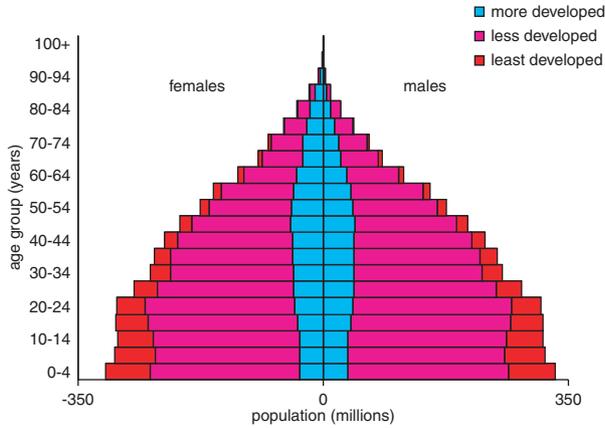
Fig. 1. The age–sex structure of the world's population in 2010, by level of development. Data source: UN Population Division (6).
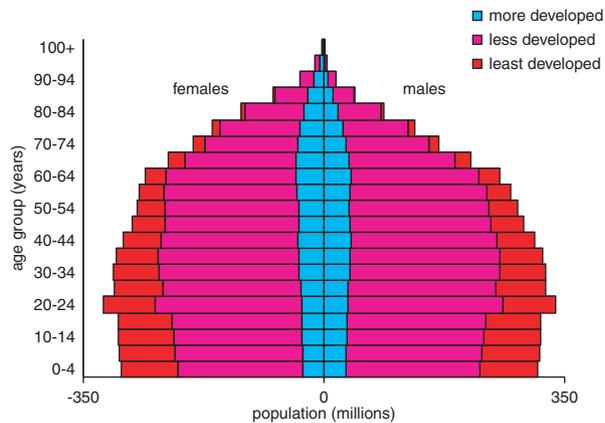

Fig. 2. The age–sex structure of the world's population in 2050, by level of development. Data source: UN Population Division (6).
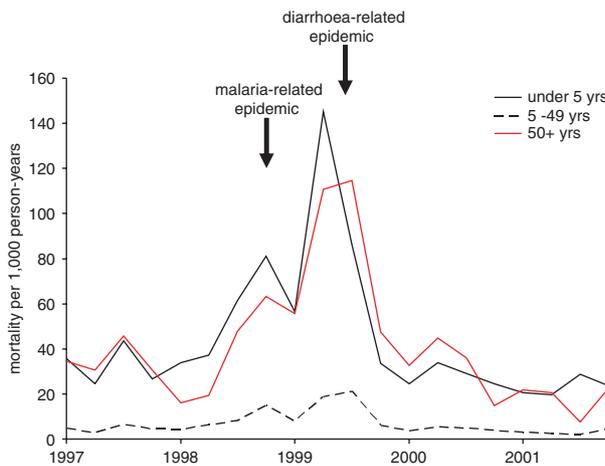

Fig. 3. The impact of infectious epidemics on all-cause community-based mortality rates in Butajira, Ethiopia, by age group. Data source: Emmelin et al. (9).
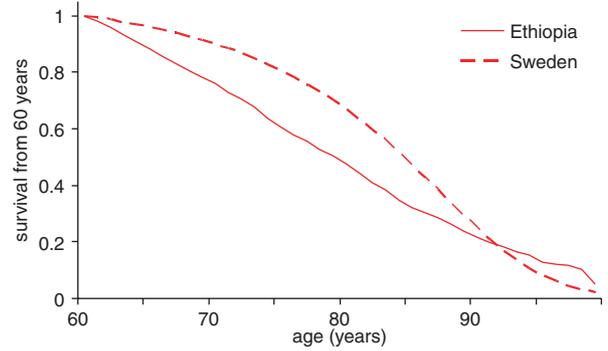

Fig. 4. Survival after the age of 60 years in Ethiopia and Sweden. Data source: Fantahun (12) and Statistics Sweden (11).

the ageing process are such examples (13, 14). There is a clear need for technology and capacity transfer to enable some of these more complex research methods to be applied more widely on a global basis, both for the sake of research equity and broader-based understanding.

In summary, the key points of relevance for setting a more global agenda for ageing are:

- The number of elders in the world is steadily increasing, with the majority of the increases being in less- and least-developed countries.
- The elderly in poorer settings are doubly vulnerable, being exposed both to diseases of ageing and infectious epidemics.
- In less- and least-developing countries, the proportion of people becoming elders is a major determinant of population change.
- Technology transfer is needed to facilitate a more global approach to high-technology ageing research.

Global Health Action would welcome research papers on ageing that reflect these global perspectives.

Peter Byass, Deputy Editor

References

1. Brändström A. Ageing – a cross-cutting research and policy challenge. Scand J Public Health 2007; 35: 225–7.
2. Center for Strategic and International Studies. The Graying of the Great Powers. Available from: http://www.csis.org/media/csis/pubs/080630_gai_majorfindings.pdf [cited 19 November 2008].
3. HelpAge International. State of the world's older people. Available from: http://www.helpage.org/Researchandpolicy/Stateoftheworldsolderpeople [cited 19 November 2008].
4. MacKellar L, Reisen H. A simulation model of global pension investment. OECD Development Centre, 1998. Available from: http://www.sourceoecd.org/10.1787/064457031713 [cited 19 November 2008].

5. National Institute on Aging. Why population aging matters. Available from: http://www.state.gov/documents/organization/81775.pdf [cited 19 November 2008].

6. United Nations Population Division. World Population Prospects: 2006 Revision. Available from: http://esa.un.org/unpp/index.asp?panel=1 [cited 19 November 2008].

7. Grundy E, Fletcher A, Smith S, Lamping D. Successful ageing and social interaction. Available from: http://www.ilcuk.org.uk/record.jsp?type=publication&ID=23 [cited 19 November 2008].

8. Unwin N, Alberti KG. Chronic non-communicable diseases. Ann Trop Med Parasitol 2006; 100: 455–64.

9. Emmelin A, Fantahun M, Berhane Y, Wall S, Byass P. Vulnerability to episodes of extreme weather: Butajira, Ethiopia, 1998–1999. Global Health Action 2008. DOI: 10.3402/gha.v1i0.1829.

10. United Nations Population Division. World Population Prospects: 2006 Revision. Available from: http://esa.un.org/unpp/index.asp?panel=2 [cited 19 November 2008].

11. Statistics Sweden. Life tables for 2007. Available from: www.scb.se/statistik/BE/BE0101/2007A01a/Be0101Livslängdstabeller_07_eng.xls [cited 19 November 2008].

12. Fantahun M. Mortality and survival from childhood to old age in rural Ethiopia. 2008. Available from: http://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-1559 [cited 19 November 2008].

13. Crimmins E, Vasunilashorn S, Kim JK, Alley D. Biomarkers related to aging in human populations. Adv Clin Chem 2008; 46: 161–216.

14. Goldman N, Turra CM, Glei DA, Seplaki CL, Lin Y-H, Weinstein M. Predicting mortality from clinical and nonclinical biomarkers. J Gerontol Ser A: Biol Sci Med Sci 2006; 61: 1070–4.