80 under 40 by 2020: an equity agenda for NCDs and injuries

In May, 2013, the World Health Assembly approved a global monitoring and evaluation framework for prevention and control of non-communicable diseases (NCDs). This framework calls for a 25% reduction in deaths from cardiovascular diseases, chronic respiratory diseases, cancer, and diabetes in individuals aged 30–70 years by 2025, or “25 × 25”. Although we applaud this effort, we do not feel that it adequately addresses the specific health and economic burdens affecting low-income countries, nor those of poor people in middle-income countries. We propose a complementary agenda to reduce premature mortality from all NCDs and injuries (including neuropsychiatric disorders) by 80% in individuals younger than 40 years by the year 2020, or “80 × 40 × 20”. This ambitious target was announced in July, 2013, at the inaugural meeting of the NCD Synergies Network in Kigali, Rwanda, hosted by the Rwandan Ministry of Health and attended by representatives from 18 countries, including policy makers from 13 African health ministries.

The Global Burden of Disease Study 2010 showed that two-thirds of life-years lost and disability-adjusted life-years (DALYs) due to NCDs and injuries in sub-Saharan Africa were in individuals younger than 40 years. NCDs causing the unacceptable deaths of children and young adults in this population were generally not driven by classic lifestyle risk factors. Disorders included rheumatic and congenital heart diseases, post-infectious renal failure, malignancies, sickle-cell anaemia, type 1 diabetes, asthma, appendicitis, suicide, epilepsy, and road traffic or workplace injuries. Collectively, these disorders accounted for 36% of the deaths, 33% of years of life lost, and 44% of DALYs in those younger than 40 years in developing countries. Indeed, compared with high-income populations in the Global Burden of Disease Study, the poorest billion people suffered about 800 000 excess deaths in 2010 from NCDs and injuries in those younger than 40 years, with about half of these premature deaths due to NCDs alone. This represents a problem of comparable magnitude to other global health priorities.

To meet the 80 × 40 × 20 target will require additional strategies complementing those identified in the global framework. However, progress towards the global 25 × 25 goal will be quicker if developing countries simultaneously focus on the 80 × 40 × 20 target, which reflects the epidemiology of these countries and is synergistic with the Millennium Development Goals.

Rwanda has adopted this target and has made progress towards it through its integrated health-system strengthening efforts. Data from the Global Burden of Disease Study 2010 suggest that, from 2000–10, Rwanda achieved a 49% reduction in NCD and injury-related mortality in individuals younger than 40 years (figure). These gains seem to have occurred in the context of a 54% decline in all-cause mortality within this age group, and include all NCD subgroups (ranging from 21% for cancers, to 70% for chronic respiratory diseases). In this timeframe, Rwanda’s average annual health expenditure was less than US$27 per head.

We believe that 80 × 40 × 20 can be achieved through shifts from prioritisation of specific diseases to building of integrated health-service delivery platforms at community, health-centre, district hospital, and referral-centre levels. Equitable access to these services, including vaccinations, diagnostics, medical and surgical care, and palliation, should be assured through universal health coverage. In addition, multisectoral action will be needed to mitigate indoor air pollution, and improve household, workplace, and road safety as part of a global movement for eradication of extreme poverty.

Many countries have already made substantial investments in health systems as part of their response to the HIV epidemic. We anticipate that high-quality interventions to prevent premature deaths from NCDs and injuries could be implemented even more quickly through leveraging of these existing investments.
Most of the necessary interventions can be done at low cost. But it should be emphasised that when highly effective interventions carry large upfront costs, or seem unattainable due to the scarcity of specialised resources, innovative efforts should be made to create cost-reduction strategies, as has been done for tuberculosis control, HIV therapy, and HPV vaccination.11 Scarc human resources should not be a barrier to expanded services if tasks are appropriately shifted to non-specialist physicians, nurses, and community health workers, and if academic partnerships are created.12 To allow country-level action on the proposed 80 × 40 × 20 target, as well as on the 25 × 25 goals, we ask WHO to increase its capacity to evaluate the manufacture of generic medicines for NCDs and provide clear quality-assurance guidelines.13 Finally, we propose the inclusion of the 80 and fierce resolve that has fuelled the HIV movement. Gene Bukhman, for the NCD Synergies Group

* Agnes Binagwaho, Marie Aimée Muhimpundu, Gene Bukhman, for the NCD Synergies Group

Ministry of Health, Kigali, Rwanda (AB); Harvard Medical School, Boston, MA, USA (AB, GB); Geisel School of Medicine at Dartmouth, Hanover, NH, USA (AB); Rwanda Biomedical Center, Kigali, Rwanda (MAM); Partners In Health, Boston, MA, USA (GB); and Brigham and Women’s Hospital, Boston, MA, USA (GB) agnesbinagwaho@yahoo.fr

We declare that we have no conflicts of interest. The NCD Synergies Group comprises Anita Asimwe, Charlotte Bavuma, Jeanine Condo, Symaqua Dosabeyeu, Theophyle Dourhime, Marc Herant, Jean Baptiste Kakoma, Corine Karma, Yvonne Kayiteshonga, Leonard Kayondo, Patrick Kyamanywa, Andrew Makaka, Jean Baptiste Mazatari, Joseph Mucumbitsa, Cathy Mugenz, Pacifique Mugenz, Placide Mujwaneza, Jean Louis Mukunzi, Emmanuel Musabeyezu, Francis Mutabazi, Cadet Mbutumbira, Elizaar Ndagurora, Uziel Ndagijimana, Fidele Ngabe, Jean de Dieu Nginabaga, Sabine Nzanimana, Fabien Ntaganda, Svoriste Ntaganda, Christian Nitzumira, Jean Pierre Nyemaz, Eric Remera, Emmanuel Rusingiza, Joseph Shema, Ernestine Simpunga, and Parfait Uwirayire (Ministry of Health of Rwanda and affiliated institutions); Heluf G Medhin (Ministry of Health of Botswana); Jeanine Ayinkamiyi (Ministry of Public Health of Bunudi); Molotok Monyamane and Kabelo Mputose (Ministry of Health of Lesotho); K Karis Kollie (Ministry of Health and Social Welfare of Liberia); Henri Fidele Marie Raharivohitr (Ministry of Health of Madagascar); Beatrice Mwagomba and Michael Mphato Udedi (Ministry of Health of Malawi); Jorge Zacarias Jose and Ana Mocumbi (Ministry of Health of Mozambique); Ayoub Rmadhani Magimba and Norman Sabuni (Ministry of Health and Social Welfare of Tanzania); Gerald Mutungi (Ministry of Health of Uganda); Kate Armstrong, Ceeya Bolman, Yogesh Jain, Injonge Karawanga, and Constance Kekhrembo (from other implementing partners); Donna Barry, Sophie Beauvais, Anne Becker, Corrado Cancetta, Sheila Davis, Peter Drobac, Paul E Farmer, Anguji Gupta, Ken Himmelsohn, Alice Kidder, Gene Kwan, Alisha Mayfield, Melino Ndyazizyige, Gedeon Ngopa, David Omotayo, Asheak Panjahi, Atupere Phiri, Giuseppe Raviola, Celia Reddick, Joseph Rhtagin, Aaron Shakov, Lawrence N Shulman, Sara Stulac, Neo Tapela, Claire Wagner, and Emily Wroe (from the Global Health Delivery Partnership and Partners in Health); Sandy Gove, Claudine Huxman, Margaret E Kruk, Bongani Mayosi, Rachel Nugent, Cameron Nutt, Eliaj Ogola, Vikram Patel, Sinnath Reddy, and Theo Vos (from other academic partners).

Angiogenesis in gastric cancer: hitting the target?

Gastric cancer, a daunting global health problem, is the fourth leading cause of cancer-related mortality worldwide. Survival in gastric cancer has improved with the validation and implementation of adjuvant therapy combined with surgery, including postoperative adjuvant chemotherapy,2 perioperative chemotherapy,3 and postoperative combined chemotherapy and radiotherapy.4 However, little progress has been made in either the treatment of advanced gastric cancer or the development of novel targeted treatments.