A global research network for non-communicable diseases

Research has been fundamental in the reduction of deaths from cardiovascular disease in high-income countries, and in showing that chronic non-communicable diseases (NCDs) such as diabetes can be prevented. Research to evaluate innovative strategies is crucial to control the pandemic of NCDs sweeping through low-income and middle-income countries. Both the political declaration after the UN High Level Meeting on NCDs and the WHO Global Action Plan emphasise the need for research. But results of a study for the UN meeting suggested that currently only about 3% of global health aid is devoted to NCDs. Furthermore, most research in low-income and middle-income countries is, understandably, aiming to provide evidence to help achieve the Millennium Development Goals, and so concentrates on communicable diseases and on maternal and child health. The world urgently needs to build capacity in low-income and middle-income countries for research to prevent and control NCDs, and our network of 11 centres comprising some 120 institutions in 30 countries has much to offer.

The network of centres was created in 2008 by an innovative collaboration between the US National Heart, Lung, and Blood Institute (NHLBI) and UnitedHealth Group. When the first proposal was launched by UnitedHealth Group some 140 responses were received from 70 countries, showing the appetite for research on NCDs in low-income and middle-income countries. The two institutions that created the network have provided about US$60m in funding, but the centres have already raised around another $40m and should be sustainable when the initial funding ends.

Four centres are in Asia (China, Bangladesh, and two in India), three are in Africa (Tunisia, Kenya, and South Africa), and four are in Latin America (Mexico, Guatemala for Central America, Peru, and Argentina for the Southern Cone). Some centres work with neighbouring countries. The research programme fits well with the call in the political declaration after the UN meeting and the WHO global action plan. The emphasis is on surveillance, prevention, development of evidence-based interventions, knowledge translation, and strengthening of health systems. As recommended by the UN, many of the centres are building on programmes for HIV, tuberculosis, and maternal and child health; this is not about creating new vertical programmes.

Basic surveillance data and systems are poor in many low-income and middle-income countries, and many of the centres are gathering epidemiological data and developing routine surveillance systems. Most of the centres are working on primary prevention of NCDs, mainly in deprived communities, and several are working on secondary prevention. Almost all of the centres are doing research with community health workers, who amplify the work of doctors and nurses, but also work in slums and rural areas where doctors and nurses might not be present. Several centres are doing studies with mobile phones, which are now widely available in even the poorest communities. The centres’ studies use many different designs, including some 15 randomised trials; in total the studies include about 60 000 participants. The results of the studies by this research network will be presented at a major meeting in Washington, DC, USA in April, 2014, and thereafter at a special session at the World Congress of Cardiology in Melbourne, Australia in May, 2014. The principal investigators of the centres will present some of their findings at the Royal Society, London, on Oct 4, 2013.

From the beginning of the programme emphasis has been on building of capacity of leaders, researchers,
institutions, and communities who will be equipped to counter NCDs. When we began, NCDs were not high on the global health agenda, but we recognised that the epidemiological transition leading to NCDs causing nearly two thirds of deaths meant that NCDs would inevitably rise up the agenda. More funds are expected to be forthcoming for research, as has started to happen, for example, with the creation of the Global Alliance for Chronic Disease.1 Those funds can be spent effectively only if research leaders and trained researchers are ready to do the work. Our best estimate is that the network has trained 90 research leaders, 400 junior researchers, and 450 community health workers and health-care providers.

All 11 centres have partners in high-income countries, including Johns Hopkins, Harvard, Duke, and McMaster Universities, and the centres themselves are mostly clusters of institutions—eg, the South African centre includes all three universities in Cape Town, the health department of the Western Cape Province, and the South African Medical Research Council.

The leaders of the centres are recognised as leaders within their countries and regions, and work with governments, WHO, the World Bank, and other organisations. From the beginning, the centres have been very conscious of the need to scale-up their innovations if they prove effective, and they have concentrated on innovations that are scalable. The leaders are also interested in policy, and have published together on programmes and policies to reduce the burden of NCDs.12

One of the primary aims of the network has been to make the whole more than the sum of the parts—as well as meeting every 6 months, the centres share data and write together. The surest way to come together is, however, to work together, and NHLBI has awarded supplemental grants for centres to work jointly. Further cooperative work is being planned.

The network plans to continue after 2014 with the primary aim to reduce suffering and premature deaths from NCDs. It will do this through continuing research, building capacity, spreading innovation, and influencing policy. The network is not exclusive, and it plans to grow with new members into the leading global body of researchers aiming to counter NCDs in low-income and middle-income countries. Please join us.

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