

## HEALTH POLICY

## What Can a UN Health Summit Do?

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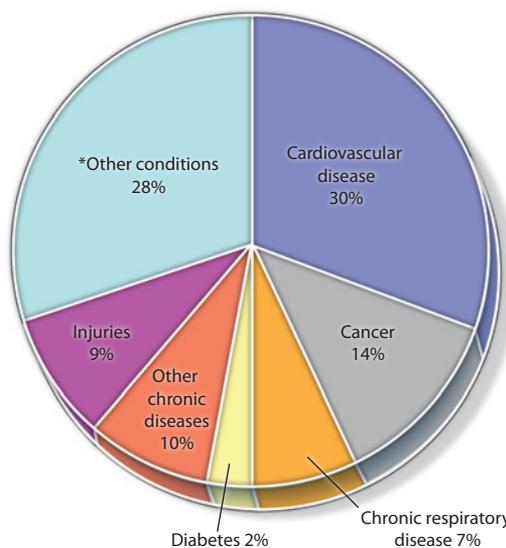
**A United Nations high-level summit meeting on noncommunicable diseases will set priorities for addressing this major threat to the health of both developing and developed nations.**

A high-level meeting on noncommunicable diseases (NCDs) convened by the United Nations (UN) General Assembly is set to take place in New York next week. In 2008, 36 million deaths (63 percent of total) were caused by NCDs such as heart disease, diabetes, cancer, and chronic respiratory disease (Fig. 1). These diseases are generally viewed as diseases of wealthy nations, but there has been a rapid rise in the prevalence of NCDs in low- and middle-income countries. By 2030, NCDs are projected to cause five times as many deaths as communicable (infectious) diseases, including the majority of deaths in low- and middle-income countries. At the UN high-level meeting, heads of state and health ministers from across the globe will focus on actions to prevent and control NCDs. Given that poor diet, lack of exercise, and alcohol and tobacco use are major contributors to NCDs, much effort will be directed to accelerating the implementation of effective public health interventions in both the developed and developing world.

The UN meeting was originally proposed in 2007 by a group of low- and middle-income countries that were later joined by an alliance of professional health organizations. The drumbeat for attention to NCDs arose in multiple UN settings between 2009 and 2010 and was justified by concerns that NCDs were slowing economic growth and development in low- and middle-income countries. The UN General Assembly passed a resolution in May 2010 (1) calling for a high-level meeting for heads of state and governments to discuss prevention and control of NCDs. Expectations for the UN Summit on NCDs are high, based on the

precedent of the first UN Special Session to discuss health in 2001 on the topic of HIV/AIDS. That conference led to the creation of the Global Fund to Fight AIDS, Malaria and Tuberculosis and sparked a donor funding surge to control HIV/AIDS in poor countries.

A number of organizations and commentators have laid out “asks” in advance of the NCD meeting (2). These have been



**Fig. 1. Causes of death worldwide.** NCDs constitute 63% of deaths worldwide. Shown are deaths due to the “big four” NCDs: cardiovascular disease, cancer, chronic respiratory disease, and diabetes. Other chronic diseases—such as musculoskeletal diseases and disorders of the eyes, ears, and other sensory organs—cause 10% of all deaths. \*Other conditions such as communicable (infectious) diseases, maternal and perinatal conditions, and nutritional deficiencies account for 28% of all deaths worldwide. [Data from (24) are for 2008.]

put forth by a narrow subsector of the global health community and encompass an almost bewildering mix of broad reforms (e.g., “raise the priority of NCDs on global agendas”) and specific actions (e.g., “reduce salt intake to less than 5 grams per person by 2025”) (3). The “asks” include

requests for NCD health services that are particularly relevant to developing country governments, along with demands for additional funding, new governance modalities, and other global actions that are especially relevant to global agencies and funders. The health services “asks” include attention to both prevention and treatment of NCDs. In the first category, support has been strong for better implementation of the Framework Convention on Tobacco Control and salt reduction. In the second category, emphasis is on expanding access to cost-effective essential medicines, including combination drugs for heart disease.

In time, we will know whether expectations for the meeting exceeded the ability of a UN meeting to deliver. At this writing, it seems certain that a new institution with billions to spend on NCDs equivalent to the Global Fund to Fight AIDS, Malaria and Tuberculosis is not likely. But real change that can save lives is nonetheless a feasible outcome. In our view, two things are currently missing from the litany of “asks”: a clear procedure for establishing priorities among all of the requests, and real involvement of nonhealth actors, such as the agriculture and food sectors. The first is an immediate need, and the second is a longer-term need. When they leave New York next week, country leaders should have gained a greater understanding of the burden of NCDs on the health and economies of their own countries and specific steps to reduce it—whether they are in the initial stages of the NCD epidemic or well along in the epidemiological transition. They should also be thinking about enlisting a broader array of public sector agencies and private companies to tackle NCDs in their nations in the long term.

#### HEALTH AND ECONOMIC COSTS OF NCDs

We know enough about the health risks of NCDs in developing countries to act and are slowly gathering information about the economic impacts.

The rationale for action is clear and impressive from the burden of disease statistics (4) but is not yet reflected in global health discourse (5) and funding (6). Sixty-three percent of all deaths worldwide in 2008 stemmed from NCDs (Fig. 1), and almost 80 percent of NCD deaths occur in low-

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and middle-income countries. NCDs also account for 48 percent of the DALYs (Disability-Adjusted Life Years) lost worldwide (versus 40 percent for communicable diseases, maternal and perinatal conditions, and nutritional deficiencies and 12 percent for injuries). Middle-income countries experience the greatest number of NCD deaths and show the fastest rise in prevalence. In low-income countries, communicable diseases are the most common cause of death but are declining, and NCDs are projected to soon outnumber deaths from communicable diseases and other causes in low-income countries.

One of the most significant and alarming aspects of NCDs in low- and middle-income countries is that they affect people at a younger age than they do in high-income countries. Figure 2 shows age-standardized death rates from heart disease. Almost half of people who die from NCDs in low- and middle-income countries are under 70, compared to about one-quarter in high-income countries, and the disparity widens at younger ages. About 29 percent of deaths from NCDs in low- and middle-income countries occur below age 60, whereas only 13 percent occur in high-income countries at such a young age. This implies a potentially higher economic loss in developing countries from NCDs as the disease burden falls more on the economically active population.

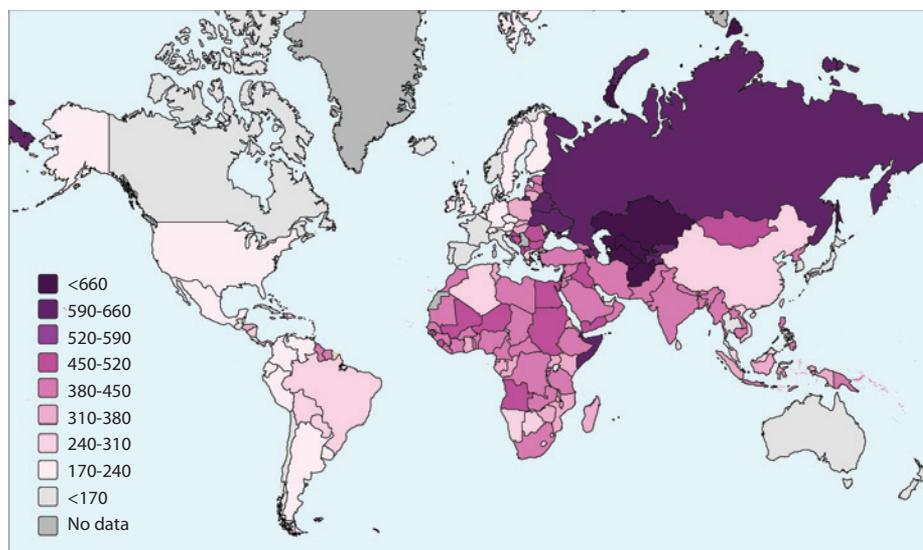
A series of declarations emerging from World Health Organization (WHO) regional consultations and the Moscow Ministerial Conference, hosted by Russia in April 2010 and attended by ninety health ministers and other officials from 167 countries (7) in preparation for the September high-level meeting, expressed deep concern about the economic impacts of NCDs in low- and middle-income countries. These impacts are not yet well understood, in part due to the different economic methods of analysis used to produce estimates. For example, a study from WHO estimated that \$84 billion of economic production will be lost due to stroke, ischemic heart disease, and diabetes in 23 high-burden developing countries between 2006 and 2015 (8). Other studies put the economic costs much higher (9). Macroeconomic estimates provide valuable fodder for advocates to share with policy-makers, but they don't guide spending decisions. For that, evidence from intervention studies is needed. Recent analyses provide guidance for countries at each stage of the epidemiological transition (10).

### SETTING PRIORITIES TO RESPOND TO NCDs

Fortunately, there is increasing knowledge in a broad range of countries about which interventions should come first to slow the rise of NCDs. Early evidence suggested that risks and prevalence of NCDs in poor countries would both rise. Omran was perhaps the first to articulate clearly the implications of a demographic transition to low mortality and fertility rates for patterns of disease (11). Sustained low fertility will lead, he observed, to population age distributions weighted toward older ages that are at high risk for NCDs. Whereas declining mortality from childhood infections leads to greater survival into older ages, reductions in fertility, and hence in the numbers of young people, have a greater effect on shifting the median age of death upward. Shortly thereafter, two World Bank country studies—on Malaysia (12) and on China (13)—documented the specifics of the transition. In addition to forecasting the significance of the NCD burden, the World Bank study on China pointed to the importance of developing affordable responses and in particular emphasized the need to control hypertension and tobacco use. As more evidence became available from developing countries, Frenk *et al.* showed that new patterns of protracted and incomplete epidemiological transition hit many countries with a “double burden” of infection *and* NCDs rather than infec-

tious disease *followed by* NCDs (14). India provides a good example of a country currently having to manage the double burden of both infectious disease and NCDs.

In part in response to findings from the China study, the World Bank initiated the Disease Control Priorities Project in 1989 (15). This initiative assessed the extent to which the available knowledge included approaches to NCDs that could be effective population-wide at a total cost within the budgets potentially available in low-income countries. This led to some preliminary but nonetheless suggestive findings on the cost-effectiveness of interventions against cardiovascular disease (16), cancers (17), chronic obstructive pulmonary disease (18), and several other NCDs. The conclusions concerning cardiovascular disease give a sense of findings more generally. For primary prevention, Pearson and colleagues looked at four broad options: screening and treatment for hypertension, screening and treatment for hypercholesterolemia, a “public prevention package,” and a 20 percent tax on tobacco. They assigned screening and treatment low priority because it cost many thousands of dollars per life year gained. Public prevention (\$150 per life year gained) and the tobacco tax were judged more attractive. Today's analyses would probably support the first two conclusions, be more skeptical about the “public prevention package,” and argue for a substantially higher tax on



**Fig. 2. Age-standardized death rates from heart disease worldwide.** Shown is the number of deaths from cardiovascular disease per 100,000 people of the same age, which is much higher in developing countries (particularly in Africa and Central Asia) than in developed countries. Darker colors on the map show higher rates of same-age mortality from cardiovascular disease. In developing countries, the disease burden falls more on the younger economically active population and therefore exacts a greater economic cost than in developed countries. [Data from (25)]

tobacco in the context of a broad program of tobacco control.

For treatment of patients with established disease, Pearson *et al.* argued that managing poststroke and postmyocardial infarction risk with medication (aspirin plus off-patent blood pressure and cholesterol lowering agents) could be quite cost-effective (19). They predicted that it would cost as little as \$150 per healthy life-year saved in the postmyocardial infarction patient and \$200-\$300 in the poststroke patient. This approach—an early version of multi-drug secondary prevention, now called the “polypill”—continues to be viewed as a priority. Improved treatment of acute myocardial infarction was also identified as a priority at several hundred dollars per healthy life year gained. Subsequent analyses reach similar conclusions (20). The Copenhagen Consensus for 2008 ranked treatment of acute myocardial infarction the 12th highest priority across all development interventions (21). This ranking was lower than education in girls but higher than malaria prevention. Although treatment of acute myocardial infarction has not yet received much policy attention, we would argue that substantial early intervention efforts are warranted.

In sum, country leaders attending the UN meeting have a great deal of economic guidance on which to rely. A well-known set of risk factors is driving the rise in most NCDs worldwide: tobacco use, poor nutrition, excess alcohol consumption, and low levels of physical activity (22). Albeit with wide country and regional variation, trends in metabolic risk factors for NCDs such as high blood pressure, high body mass and central adiposity, and elevated fasting glucose levels are rising in low- and middle-income countries (23). Reversing the harmful trends in risk factors will require scaling up both prevention and treatment interventions at the population and individual levels (24). For some countries, the first step will need to be improved surveillance and screening to diagnose risk and disease status. The U.S. Institute of Medicine reported that awareness of hypertension is below 50 percent in many developing countries (25). Survival from curable cancers remains quite low in developing nations—a situation that screening and early detection can improve (26). Making the right choices among those competing claims on resources requires countries and international agencies to apply the existing evidence and review progress along the way.

The NCD high-level meeting can be viewed, then, as a continuation of decades of work that has slowly developed a short but critical list of action priorities. The first Disease Control Priorities publication in 1993 clearly noted the emergence of NCDs and described approaches to address NCDs in cost-constrained environments (15). The potential economic costs—direct to health systems and indirect to economic growth—were as yet unmeasured but were recognized in a few countries. That knowledge gap is currently being addressed, and the development implications of NCDs are at the forefront of the UN agenda (27).

### INVOLVING A BROADER SET OF ACTORS IN THE NCD RESPONSE

In contrast to the long history of analysis and evidence gathering for priority setting in health, experience and evidence for policy decision-making that involves multiple sectors are in their infancy. Agriculture and food production are among the important sectors in which policies should be developed to support health objectives (28). The clamor for multisectoral involvement is strong, but the details of how it would happen and where it would lead are largely missing. NCD advocates have put forth specific “asks” for the meeting that relate to food and agriculture. These population-based measures are not yet backed up by strong evidence of cost-effectiveness. They are:

- By 2025, reduce salt intake to less than 5 g per person per day. Specific priority interventions included mass media campaigns and voluntary actions by the food industry to reduce salt consumption.
- Mass media campaigns, food taxes, subsidies, labeling, and marketing restrictions to address unhealthy diets and obesity.
- Cross-sectoral coordination to align national policies on agriculture, finance, trade, industry, transport, urban planning, and education to collectively address the NCD epidemic.
- Fiscal and trade incentives for the production, distribution, and marketing of fresh vegetables, fruit, and unprocessed food.

The “whole-of-government approach” to respond to NCDs that would involve the entire range of government agencies in a coherent response is not yet well defined by the UN, nor has it been convincingly put into action in the preparations for the high-level meeting, which have been led by WHO. Other UN agencies, such as the

Food and Agriculture Organization and UN Habitat, which is responsible for the built environment, are absent. Elsewhere, ideas for multisectoral governance arrangements involving cross-ministerial bodies are in the early stages (29). The UN resolution calling for the meeting emphasized the use of indicators to monitor development progress and specifically urged integrating indicators for NCDs within the system already in place to track the Millennium Development Goals. Impetus for the difficult governance changes needed to put this in place will be stronger with better economic evidence of the benefits and costs of multisectoral actions, which can then be compared to the existing evidence for individual interventions. A longer-term agenda to install procedures and institutions for cross-sectoral priority setting can be an outcome of the UN meeting. It could include fashioning a coalition of sectors to plan how to gather the needed cost-effectiveness and other economic evidence.

### WHAT CAN WE EXPECT FROM THE NCD SUMMIT?

It is highly likely that governments at the meeting will endorse at least some of the proposed actions, and then the task will be up to governments and others to carry them out. The NCD-oriented UN watchers believe strongly that the meeting must produce two things to have much impact on the growing chronic NCD health burden in the world: (1) target deadlines for reducing NCDs and (2) development assistance funding for resource-poor countries to enable them to start tackling NCDs. Whether or not those results emerge from next week’s meeting, there is a long standing and compelling case for both short-term priority setting and long-term multisectoral involvement to slow the rise of NCDs globally and nationally.

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