

## Commentary

# Why a global strategy on diet, physical activity and health? The growing burden of non-communicable diseases

In January this year, the World Health Organization's (WHO) Executive Board agreed to forward the WHO Global Strategy on Diet, Physical Activity and Health to its World Health Assembly, after allowing countries an extended period until February 29 for comments. A final draft strategy will be considered by WHO member states this May. The strategy is an important global public health initiative, which was prompted by member states' concern at the explosion in non-communicable diseases (NCDs), for which unhealthy diet and physical inactivity are, together with tobacco use, among the key risk factors.

World health is in transition. Epidemiologically, many low- and middle-income countries all over the world now face a double burden of disease, whereby – in addition to infectious diseases – they are facing a growing toll of death and disability from NCDs. The world's population is ageing, while increased development has been accompanied by rising disposable incomes, urbanisation, mechanisation and globalisation of food markets, leading to lifestyle and behaviour changes that adversely impact on population health<sup>1,2</sup>. These lifestyle changes include dietary changes (nutrition transition), reduced physical activity levels and increased tobacco use.

The result of these changes is that NCDs are increasing at alarming rates globally. The burden of NCDs in developing countries already outweighs that of communicable diseases, both in high- and low-income countries. In 2002, NCDs accounted for 60% of total mortality worldwide and 46% of the global burden of disease<sup>3</sup>. Low- and middle-income countries account for the increased burden of disease from NCDs. One example comes from China. In China's rural areas – and that's still more than 800 million people – NCDs account for more than 80% of deaths; communicable diseases, less than 3%<sup>4,5</sup>.

Only in Africa do deaths from communicable diseases outweigh those from NCDs: in WHO's other five regions, NCDs now dominate. Of the estimated 57 million deaths which occur each year, 33.4 million are attributed to NCDs. Of these, 16.7 million are attributed to cardiovascular diseases (CVDs), especially ischaemic heart disease and cerebrovascular diseases. Twice as many people die from CVDs in developing countries than in developed countries. Obesity is now a global epidemic<sup>6</sup>. Globally, there are more than 1 billion overweight people and at least 300 million of them are clinically obese. Close to 800 million people are suffering from undernutrition, a slow

decline over the past decade. The number of people with diabetes is expected to increase threefold by 2020, and most of this growth is projected to occur in Asia. In India alone there are currently close to 33 million diabetics.

### The causes of non-communicable diseases

As noted above, NCDs are increasing for several key reasons. Throughout the world, birth rates are declining, life expectancy is increasing and populations are ageing. Between 1955 and 2002, life expectancy at birth in low-mortality developing countries rose from approximately 42 to 70 years. In high-mortality developing countries, life expectancy rose from approximately 38 to 55 years<sup>3</sup>. These demographic changes can be explained by significant improvements in medical science and technology, and successful public health and other development efforts over the last 100 years.

The world population exposure to the modifiable risk factors for CVDs, cancer, diabetes, obesity and other NCDs is also increasing at a very rapid pace<sup>7</sup>. Five of the top 10 risk factors for global disease burden identified by the *World Health Report 2002* – high blood pressure, high cholesterol, low intake of fruit and vegetables, high body mass index and physical inactivity – independently and often in combination, are the major causes of these diseases. Food is clearly a major factor in all this. *World Health Report 2002* reflects the impact of risk factors over the last decade or so. But current risk levels predict future major increases in chronic diseases.

The increased prevalence of modifiable risk factors is closely linked to economic development. Urbanisation is a key to understanding lifestyle changes<sup>1</sup>. Rapid growth of urban centres results, in most parts of the world, in deficiencies in housing, infrastructure and basic services. This trend is accompanied by growing influences of global trade, industrialisation and expansion of food markets. Populations are exposed to increased availability and aggressive promotion of processed, inexpensive food – generally high in fats, sugar and salt – but reduced access and affordability of fruits and vegetables. For every 10% increase in income, the proportion of energy intake from fat is increasing faster among the poor than among the rich in China<sup>8</sup>.

But China is not an exceptional example; there are significant changes found in all income groups in many

countries. Between 1962 and 2000 the world's dietary intake of caloric sweeteners increased 74kcal/d, and approximately 82% of this change is attributable to income growth and urbanization changes<sup>9</sup>. In addition, lifestyles are becoming increasingly sedentary globally, with a rapid shift from energy-expenditure-intensive to automated occupations, changes in transportation and the increased use of motorised vehicles<sup>2,10</sup>. All of these factors lead to a decrease in energy expenditure.

### Risk factors and poverty

Diet-related NCDs are not only the biggest killers, but also reflect socio-economic inequalities; e.g. NCDs and their risks tend to cluster heavily among the poorest communities in all countries, and in developing countries they occur, on average, at lower ages<sup>11,12</sup>. In developed countries, these risk factors and their disease outcomes cluster in poor urban centres, where access to and affordability of healthier food items such as fruits and vegetables is limited<sup>13–15</sup>. A recent study by Monteiro *et al.* showed that female obesity already starts to reflect inequalities in the developing world at a GNP of US\$2500 per capita. Unless public health interventions occur, economic growth is expected to expand the number of developing countries where obesity among adult women is associated with health inequalities<sup>15</sup>.

### Need for a new approach

This is, therefore, a global epidemic and requires a global response. Action is needed now to ensure that developing countries do not experience the high peak in NCD prevalence that has occurred in the developed world.

Upon request by its member states, WHO has over the past two years developed the Global Strategy on Diet, Physical Activity and Health. Consistent with an approach in which countries participated from the onset, six regional consultations with member states were completed between March and June 2003. These involved more than 80 countries in formal meetings. The strategy also reflects the expertise and advice of several United Nations organisations, in particular the Food and Agriculture Organization (FAO). WHO has also received significant input from representatives of civil society and non-governmental organisations, and from the private sector, in particular the food and non-alcoholic drinks industry, as well as the sport manufacturing organisations. WHO has been supported in this process by a reference group of prominent experts from all over the world, representing several fields and disciplines. This group provided scientific and policy input and advice for the development of the strategy throughout the process.

The strategy builds upon the vast evidence, best practices and experience in countries in tackling and preventing NCDs. It also draws on the experience and

knowledge of health, nutrition and physical activity experts from a wide range of disciplines and countries, both developed and developing. One of the strategy's most important conclusions is that reducing the burden of NCDs requires a multi-sector, multi-stakeholder approach.

The strategy is not prescriptive, but like a toolbox, and provides WHO member states with a comprehensive range of policy options from which to choose. Many countries are already developing their own national strategies.

During the process there has been considerable debate with regard to the implications of some of the recommendations on countries, and some groups have expressed concerns about certain crops and the effects on primary production.

Preliminary research shows that this is not justified. The strategy may in fact offer a unique opportunity for many sectors and for crop diversification in agriculture-producing countries<sup>17</sup>. The strategy advocates increased consumption of fruit and vegetables, whole grains and fish. In a recent report to its Committee on Agriculture, the FAO notes the huge agricultural potential these areas offer many countries<sup>18</sup>. In addition, some food companies see increasing consumer demand for healthier diets as offering a market opportunity and are developing products aligned with recommendations for healthier diets.

Finally, the Commission on Macroeconomics and Health has shown how disease is a drain on development, and how investments in health are an important prerequisite for economic development<sup>19</sup>. Improving the health of populations and containing the increasing costs of NCDs can be achieved if countries adopt national strategies and plans. The strategy therefore offers a huge potential for countries to improve the health of their populations.

National action can be effective – it has provided much of our evidence base for effective interventions. But independent action is not enough in an increasingly globalised and interdependent world. WHO's goals to advance public health world-wide – and perhaps as importantly, to set new public health priorities – can only be met through decisive and coherent action by countries, sustained political commitment and broader, multi-level involvement with all relevant stakeholders world-wide. The strategy is a global response to a global epidemic.

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