



## Background Paper:

*Raising the priority accorded to non-communicable diseases in development work and in related investment decisions*

**Side-event on Non-communicable Diseases**

**«Accelerating the MDGs by addressing NCDs»**

**20 September 2010**

**United Nations, New York**

**Conference Room CR7-NLB**

**1:15PM-2:45PM**

*On the occasion of the UN-MDG High-level Plenary Meeting*





## 1. The pattern of ill-health worldwide has changed dramatically

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Four conditions – cardiovascular disease, diabetes, cancer, and chronic respiratory disease – are now the most common causes of premature death and disability. These four diseases now predominate in high-, middle- and most low-income countries. And in all countries, the poor are most affected. These diseases have risen so rapidly, cut productivity so insidiously, and are draining family resources so thoroughly, that they have become a major threat to the economic and social development of developing countries. In Africa, deaths from these diseases are rising faster than anywhere else in the world.

## 2. Key messages

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- Cardiovascular disease, diabetes, cancer, and chronic respiratory disease:
  - are now the leading killers worldwide;
  - are putting a brake on development;
  - are undermining the attainment of MDGs;
  - are amplifying social inequality.
- In Africa, deaths from these diseases are rising faster than anywhere else in the world.
- Tackling these diseases will help people in the poorest countries escape poverty.
- There is a clear way forward for tackling these disease and their key risk factors: tobacco, harmful use of alcohol, unhealthy diet, and physical inactivity.

## 3. Why this surge?

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Cardiovascular disease, diabetes, cancer, and chronic respiratory disease (so called non-communicable diseases or NCDs) are rising as a result of a global epidemic of smoking, unhealthy diet, harmful use of alcohol, and physical inactivity. With this has come an explosion in the rates of obesity and high blood pressure.

Globalization and rapid urbanization have contributed to the rapid rise of disability and premature death from NCDs in middle- and low-income countries. Globalization has brought processed foods and diets high in total energy, fats, salt and sugar into billions of homes. People in developing countries are now consuming more processed foods than ever before, with diets high in fat, sugar and salt. Marketing of fast food, processed food, tobacco and alcohol contribute to this. A significant proportion of global marketing is now targeted at children in developing economies and is a key contributor to unhealthy behaviour.

In the last three decades much has been learned about the causes of NCDs. While death rates have declined by more than half in some developed countries, this has not been the case in low- and middle-income countries, where death rates in young adults are increasing at an alarming rate, especially among the poorest populations. In short, we have an epidemic. And a time bomb that threatens many of the development gains made over the last twenty year.



#### 4. NCDs are now the leading killers worldwide

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Sixty percent of all deaths in the world are caused by NCDs. Eighty percent, or 38 million, of these deaths are in people from low- and middle-income countries. Nine million people die from NCDs every year before they reach their sixtieth birthday. And most of these premature deaths occur in low- and lower middle-income countries. In these countries, 47% of all NCD deaths occur in those under 60 years old.

WHO estimates that each year :

- 7 million deaths are due to high blood pressure;
- 4.4 million are caused by high cholesterol;
- 5.4 million are caused by tobacco;
- 5.3 million are due to unhealthy diet and lack of physical activity.

From: The World Health Report: Reducing risks, promoting healthy life. WHO, 2002.

But now there is strong evidence that premature deaths and disability from NCDs can be cut considerably by reducing the main risk factors associated with these diseases<sup>1</sup> and through effective treatment.<sup>2</sup>

#### 5. NCDs put a break on development

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*NCDs are now a serious threat to the health of those under age 60 in low- and middle-income countries.* People in these countries die or are disabled much younger from NCDs than those in developed economies.

*NCD are now a threat to socio-economic development.* Each year, the World Economic Forum looks at global risks. For the last two years, it has ranked NCDs as third, in terms of risk to global economic loss and fourth in term of impact. These risks are on a par with the fiscal crisis and exceeded only by the impact of an asset price collapse, or the increase in oil and gas prices. The risks of NCDs to the global economy are the result of the escalating cost of care, the threat to productivity from young lives lost, and the effects of catastrophic costs and impoverishment to households. The World Economic Forum highlights the strong links between NCDs and risks such as the fiscal crisis, underinvestment in infrastructure, and food, water and energy in security. The World Bank estimates that 4 to 10% of the potential Gross Domestic Product is foregone in India every year due to NCDs. A recent estimate suggests that NCD reduce the economy of Latin America by around 2% a year.<sup>3</sup> In China, where tobacco use is increasing, one study from the mid-1990s estimated the direct and indirect health costs of smoking at US\$6.5 billion per year.<sup>4</sup>

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<sup>1</sup> WHO. Preventing chronic diseases: A Vital Investment. 2005.

<sup>2</sup> Wald NJ, Law MR. A strategy to reduce cardiovascular disease by more than 80%. BMJ, 2003.

<sup>3</sup> Stuckler D. Population causes and consequences of leading chronic diseases: a comparative analysis of prevailing explanations, 2008

<sup>4</sup> Jin S et al. An Evaluation on smoking-induced health costs in China (1988–1989). Biomedical And Environmental Sciences, 1995



## 6. NCDs are now undermining the attainment of the MDGs

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*Tuberculosis.* In the 22 highest tuberculosis-burden countries, active smoking is estimated to be associated with 23% of new tuberculosis cases; alcohol use, 13%, and diabetes 7% and HIV infection is associated with 18%.<sup>5</sup> In India, smoking is implicated in over 50% of tuberculosis deaths.<sup>6</sup>

*HIV/AIDS.* The link between HIV and cancer is well-established: Kaposi's sarcoma is a leading cancer in Africa. Patients with HIV are 1.7 to 3 times more likely to develop non-AIDS malignancies than the general population.<sup>7</sup> In addition, anti-retroviral therapy increases the risk of cardiovascular disease.

*Child health.* Children, especially poor children, are particularly vulnerable to the NCD epidemic. In developing countries, put together, the burden of HIV and of NCD explained more than half of inequalities in the progress towards MDG targets on child mortality. Smoking and poor diet in pregnancy can have long term effects on the child. Healthy diet in infancy and early childhood is critical to an individual's long-term health. Spending on tobacco and alcohol crowds out spending on education, healthcare and food. In both Bangladesh and Indonesia paternal smoking has been associated with increased stunting, underweight, and wasting in children.<sup>8</sup> Obesity in pregnancy is associated with maternal and infant morbidity and mortality.

*Women's health.* Breast cancer is the most common cancer in women worldwide and is the second most common cancer in African indigenous women. There is strong evidence linking obesity and diabetes to breast cancer.<sup>9</sup> Cancer of the cervix is the second most common tumour in women and more than 80% of the cases occur in developing countries. Effective interventions exist for the two leading causes of cancer deaths in women - 70% of cervical cancer is now vaccine preventable and breast cancer is largely treatable through early detection.

The links between NCDs and the MDGs mean that NCDs need to be tackled if the MDG targets are going to be achieved. And as a result, the 63rd World Health Assembly urged Member States, development partners and WHO, in a resolution on monitoring the achievement of the health-related Millennium Development Goals, to recognize the growing global burden of NCDs.

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<sup>5</sup> Equity social determinants and public health programmes, WHO, 2010.

<sup>6</sup> Gajalakshmi V et al. Smoking and mortality from tuberculosis and other diseases in India: retrospective study of 43 000 adult male deaths and 35 000 controls, *Lancet*, 2003

<sup>7</sup> Bonnet F, Chêne G. Evolving epidemiology of malignancies in HIV. *Curr Opin Oncol*, 2008

<sup>8</sup> Semba RD et al. Paternal smoking is associated with increased risk of child malnutrition among poor urban families in Indonesia. *Public Health Nutrition*, 2007

<sup>9</sup> Sitas F et al. Part II: Cancer in indigenous Africans--causes and control. *Lancet Oncol*. 2008.



*"You have given public health a policy instrument and guidance for tackling one of the world's fastest growing and most alarming health problems. This is the rise of chronic non-communicable diseases, like cardiovascular disease, cancer, diabetes, and chronic respiratory disease."*

Dr Margaret Chan, Director General, WHO, describing the endorsement of the Global Strategy to Reduce the Harmful Use of Alcohol at the Sixty-third World Health Assembly, 2010.

## 7. Reducing NCDs will help people in the poorest countries escape poverty

*The NCD epidemic is growing fastest in the poorest countries:* NCDs are among the leading killers in the poorest countries and the epidemiological transition in these countries is taking place very rapidly. NCD mortality rates in Africa are rising faster than anywhere else in the world.

*Poor populations with NCD are doubly disadvantaged:* In the mid-nineties, Tanzanian men, aged fifteen to sixty-four, were already dying from stroke at three to six times the rate of their counterparts in the UK.<sup>10</sup> In rural Andhra Pradesh in India, NCDs accounted for 55% of all deaths.<sup>11</sup>

*Tobacco and poverty: a vicious circle.* Tobacco disproportionately affects the poor with women and children experiencing the greatest exposure to passive smoking. The poorest quintiles are more likely to smoke. Tobacco consumption displaces expenditure on income available for the family's food, education and healthcare. In China, India and Thailand, the cost of a pack of 20 local cigarettes was at least double that of a kilogram of rice in 2006.<sup>12</sup> In the Philippines, the poorest households spend more on tobacco than on education, health and clothing combined.<sup>13</sup> In Nepal the poorest households spent almost 10% of their income on tobacco products.<sup>14</sup> Advertisements are often placed where children gather, and this is true in disadvantaged neighborhoods too.

*Healthcare costs.* Out of pocket expenditure associated with the acute and long-term effects of NCDs can result in catastrophic health expenditure. A World Bank study in India showed that 25% of families with a member with cardiovascular disease experience catastrophic expenditure and 10% are driven into poverty.<sup>15</sup> And the situation was much worse with cancer where almost 50% of households with a member with cancer experience catastrophic spending and 25% are made poor by healthcare expenses. In Sudan, the cost of caring for a family member with diabetes is 23% of the household income for a child and 9% of household income for an adult. In India, diabetes care for one member of a low-income household in one part of India consumes 34% of all income, while a high-income family was spending 5%.<sup>16</sup>

<sup>10</sup> Walker RW et al. Stroke mortality in urban and rural Tanzania. Adult Morbidity and Mortality Project. Lancet, 2000

<sup>11</sup> Joshi R et al. Chronic diseases now a leading cause of death in rural India--mortality data from the Andhra Pradesh Rural Health Initiative. Int. J. Epidemiol, 2006

<sup>12</sup> Analysis of data from The Economist Intelligence Unit. (Unpublished).

<sup>13</sup> Baquilod M.M. et al. Tobacco and poverty in the Philippines. 2008;

<sup>14</sup> Karki YB et al. A Study on the Economics of tobacco in Nepal. World Bank, 2003

<sup>15</sup> Mahal A et al. The Economic implications of non-communicable disease for India. World Bank, 2010.

<sup>16</sup> Lipton R et al Self-reported social class, self-management behaviors, and the effect of diabetes mellitus in urban, minority young people and their families. Arch Pediatr Adolesc Med.2003.



## 8. NCDs amplify social inequality

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NCDs can exacerbate poverty and increase health inequities. Poor populations in low-income economies are those most burdened by NCDs. They are also those with the least access to public health services, those paying the largest portion of their income for medical care, and the people most often impoverished by the cost of care.

*Differential position* – social class determines health status and the risk of NCDs. This is not just true for those on low incomes – other marginalized groups, including women, indigenous peoples, and migrants, often suffer higher rates of NCDs independent of their economic position. In Brazil, 13.7 % of those in the lowest socioeconomic group have alcohol use disorders compared to 2.7% in the highest income group.<sup>17</sup> Progressive income taxation that funds public services and universal education of girls, along with workplace and other legislation that enhances the social determinants of health can have major impacts on health.

*Differential exposure* – the poor are more exposed to NCD risk factors: smoking, poor diet, harmful use of alcohol and physical activity.

*Differential vulnerabilities* – the poor are born with greater vulnerability to NCDs. They are at risk from the beginning, starting in the intra-uterine environment, and compounding over the life-course. Children with an undernourished mother during pregnancy or under-nutrition in childhood are more vulnerable to developing NCDs later in life.

*Differential outcomes* – the poor do much less well in terms of acute and long-term health outcomes associated with NCDs. In Tanzania, mortality rates for people with diabetes are more than twice as high among those with no formal education compared to those with office jobs.

*Differential consequences* - loss of productive life by the heads of a household leads to intergenerational transmission of poverty.

## 9. Working effectively across government and across sectors to work

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The prevention and control of NCDs in countries at all levels of development requires concerted action across the whole of government. There is no single solution, rather the way forward rests on coherent, pro-poor cross-government solutions that tackle both NCDs and their risk factors. In the same way, as the NCD epidemic is a sign of failed development, the solutions represent a joined-up model of sustainable, human development together with the drive for productivity and growth.

### *Taxation*

Taxes on tobacco are the single most effective intervention to reduce demand for tobacco. A price increase of 10% would reduce smoking by about 4% in high income countries and

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<sup>17</sup> Edwards G et al. Alcohol Policy and the Public Good. Oxford University Press, 1995.



by about 8% in low- and middle-income countries.<sup>18</sup> Public policies that raise prices of alcohol are an effective means to reduce harmful use of alcohol.<sup>19</sup> Alcohol and tobacco taxes also contribute to government revenue.

### *Food*

Agricultural production, trade, manufacturing and retail of food determine the types of food people can buy. The impact on NCDs stems both from the raw ingredients produced, but also how they are transformed, distributed and marketed. Policies such as reducing subsidies on meat production can help. Governments can set targets for the substitution of less energy dense, more nutritious products, for example salt and trans fats, by retail outlets. Pricing strategies, either through taxes or by the food industry can be an effective strategies for encouraging consumers to eat more healthily.

### *Urban development*

Towns and cities are where more and more people in developing countries are living. They need to be built in a way that encourages a healthy lifestyle. Examples include footpaths and cycle tracks. Car use can be discouraged through congestion charges and limiting parking. Homes and workplaces need to be built in a way that promotes a healthy lifestyle too. Planning regulations can restrict the number of fast food restaurants and places selling alcohol or tobacco – or at least prohibit their proximity to schools.

### *Health systems*

A failure to invest in health systems means that NCD prevention and control has been poorly taken up in many countries. Poor people often die in pain from NCDs because they have no access to pain relief. Like AIDS and TB, the chronic nature of NCDs means that reducing out-of-pocket payments and moving towards universal coverage is important. So too is the need to move towards health systems that encourage prevention and work with other sectors to reduce NCD risk factors. In developing countries, access to generic medicines used for chronic diseases is significantly lower than for acute conditions. The poorer a country is the wider the gap. Improved procurement (e.g. national pooled purchasing) and adequate, equitable and sustainable financing is crucial for treating NCDs.

## **10. The 2008-2013 Global NCD Action Plan**

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Tackling NCDs in developing countries is now an urgent challenge for global development. In 2008, WHO published an action plan for preventing and controlling NCDs. The Action Plan highlights the pressing need to invest in NCD prevention as an integral part of sustainable socioeconomic development. The Action Plan makes clear that NCD is an all-government responsibility.

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<sup>18</sup> Chaloupka F et al. The taxation of tobacco products. In: Tobacco control in developing countries. OUP, 2000.

<sup>19</sup> Wagenaar AC et al. Effects of beverage alcohol price and tax levels on drinking: a meta-analysis of 1003 estimates from 112 studies. *Addiction*, 2009.



#### The six objectives of the WHO Action Plan

- *To raise the priority accorded to NCDs in development work at global and national levels, and to integrate prevention and control of such diseases into policies across all government departments.* NCDs are closely linked to global social and economic development. These diseases and their risk factors are closely related to poverty and contribute to poverty; they can no longer be excluded from global discussions on development.
- *To establish and strengthen national policies and plans for the prevention and control of NCDs.* Countries need to establish new, or strengthen existing, policies and plans for the prevention and control of NCDs as an integral part of their national health policy and broader development frameworks.
- *To promote interventions to reduce the main shared modifiable risk factors for NCDs: tobacco use, unhealthy diets, physical inactivity and harmful use of alcohol.* Policies and measures are needed to reduce exposure to tobacco and the harmful use of alcohol, and to increase physical activity and healthy diet.
- *To promote research for the prevention and control of NCDs.* An international collaborative programme is required that focuses on strengthening evidence on prevention and essential health care and on developing and disseminating new ways of responding to the epidemic.
- *To promote partnerships for the prevention and control of NCDs.* The health sector alone cannot address the triple pressures of globalization, urbanisation and population ageing. In each country, a whole-of-government approach is needed. Governments need to work with communities, civil society, academia international organizations, and the private sector. Global alliances can support national efforts.
- *To monitor NCDs and their determinants and evaluate progress at the national, regional and global levels.* Surveillance is essential for determining evidence-based policy and evaluation the effectiveness of programmes.

From: WHO. Action Plan for the Global Strategy for the Prevention and Control of NCDs: 2008-13.

## 11. Key messages for international development

The Action Plan emphasizes the need for all stakeholders to intensify and harmonize their effects to avert these preventable NCDs and to save millions from suffering needlessly and dying prematurely.

- *Global development initiatives must take into account the prevention and control of non-communicable diseases.* The burden of NCDs is a potent force, alongside the burden of HIV that holds back the attainment of the MDGs. Every opportunity should be



taken to include NCDs in efforts to strengthen health systems and address them together with chronic diseases such as HIV/AIDS, and incorporate the prevention and control of NCDs explicitly in poverty-reduction strategies and in relevant social and economic policies at global and national levels, including the MDGs and MDG successor goals. If they continue to be systematically excluded, then the epidemic of NCD will simply reverse any gains, for instance, in Sub-Saharan Africa, within a couple of decades.

- *As with other chronic diseases such as HIV/AIDS the prevention and control of NCDs must be integrated into policies across all government departments.* National policies in sectors other than health have a major bearing on the risk factors for NCDs. Health gains can be achieved much more readily by influencing public policies in sectors like trade, taxation, education, agriculture, urban development, food and pharmaceutical production than by making changes in health policy alone. Every opportunity should be taken to provide developing economies with technical support to build sustainable institutional capacity in this area, enabling them to adopt approaches to the prevention and control of NCDs than involves all government departments.
- *The level of exposure of individuals and populations in developing economies to the common modifiable risk factors for NCDs must be reduced.* In 2008, only 5% of the world's population was covered by comprehensive smoke-free laws – and these were mostly in developed economies. As the underlying determinants of NCDs lie outside the health sector, strategies for reducing risk factors need the involvement of both public and private actors in multiple sectors such as agriculture, finance, trade, transport, urban planning, education and sport. Action is needed in a variety of settings, for example, schools, workplaces, households and local communities.
- *Data and information on trends in respect of NCDs and their risk factors which are immediately available in developing countries must be included in the UN Statistics Division's global statistical system.* Current global surveillance efforts largely exclude NCDs and perpetuate the myth that NCDs are not a problem of developing economies. Unlike many MDG indicators, reliable data for smoking are not available for most developing economies.
- *The recommendations for Member States and international partners included in the WHO Global Strategy for the Prevention and Control of NCDs and its related Action Plan must be implemented.* The Action Plan, which is particularly focused on developing economies, was endorsed by the World Health Assembly in May 2008 and includes recommendations for Member States, international partners and the WHO Secretariat. If the plan is to be implemented successfully, high-level political commitment and the concerted involvement of governments and communities are required. In addition, more resources for preventing and controlling NCDs will be needed.

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