Policy BRIEFING

ISSUE 65 • MAY 2014

Responding to the Threat of Nutrition-related Non-communicable Disease

Shifts in society, demography, technology and the environment are significantly impacting the global burden of disease, with non-communicable disease (NCD) on the rise. Almost half of all deaths attributable to NCD have nutrition as the predominant risk factor (cardiovascular diseases and diabetes). This briefing provides an overview of policy options that have been or could be adopted across a number of sectors, specifically health systems, social protection, food, agriculture and nutrition, and governance. It recommends that the international development community pay greater attention to the undermining effect of NCD, and develop cross-sectoral policy responses to respond to this growing threat.

Understanding non-communicable disease

Non-communicable disease (NCD) cannot be passed from one person to another. According to the World Health Organization (WHO), there are four main types of NCD: 'cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes'. Other definitions of NCD include congenital conditions, like sickle cell anaemia, and mental health conditions, which may have both genetic and environmental risk factors.

A clearer definition derives from the common risk factors for NCD. At a physiological level, these include: increased blood pressure, elevated levels of glucose and/or fat in the blood, and carrying excess body fat. These physiological risks are influenced by individual genetic make-up but also by behavioural and environmental factors. Individual behaviours that increase the risk of NCD include tobacco usage, lack of physical activity, poor diet, and alcohol misuse. Environmental factors thought to be driving the increased levels of NCD include: urbanisation, ageing, and globalisation, along with other common social determinants of health. This briefing focuses only on NCD where the predominant behavioural risk factor is nutrition, which limits the discussion to cardiovascular diseases and diabetes.

Despite decreased fertility rates in many parts of the world, the total population continues to grow, in part because of ageing populations in low- and middle-income countries (LMICs). Cities are getting bigger and more populated. Great strides in preventing deaths and disability from infectious diseases have helped people to live longer.

These changes have prompted technological advances. The agri-food system continues to intensify production but also to experiment with ways of providing healthier processed foods. Manufacturers are also exploring how to provide these foods at lower costs. At the same time, within the health sector, new technologies for tracking, diagnosing, treating and sharing information about a variety of health conditions have advanced significantly.

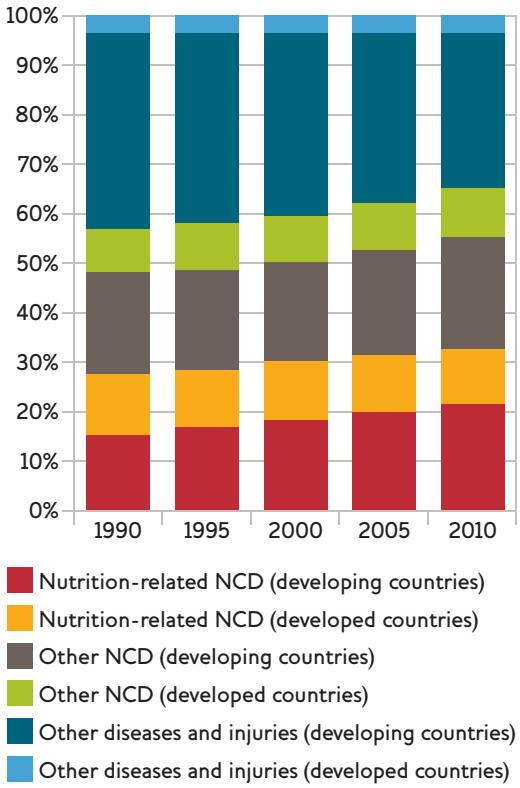
These interconnected shifts in society, demography, technology and the environment are having a huge impact on the global burden of disease, with NCD on the rise (see Figure 1). Almost half of all deaths attributable to NCD result from diseases that have nutrition as a significant behavioural risk factor (namely cardiovascular diseases and diabetes). While the global public health community has long been calling attention to this issue, policy solutions often target individual-level behaviour change and risk prevention interventions without giving sufficient consideration to broader social, economic, environmental and political approaches. Nor do they tend to consider the broader systemic interactions such as the relationship between food systems and under- and over-nutrition.

In this context, experts working across a number of development sectors – health systems, social protection, food, agriculture and nutrition, and governance – have reviewed existing policy responses across several LMICs to draw lessons for a wider development response to nutrition-related NCD. This briefing provides an overview of these policy options.

Understanding the relationship between NCD and poverty

The WHO suggested in 2011 that approximately 63 per cent of global annual deaths (36 million) are attributable to NCD and that 48 per cent of the healthy life years lost (or disability adjusted life years – DALYs) worldwide are due to NCD. Of those deaths, almost 80 per cent occurred in LMICs. Recent data from the 2010 Global Burden of Disease study confirms this (see Figure 1).

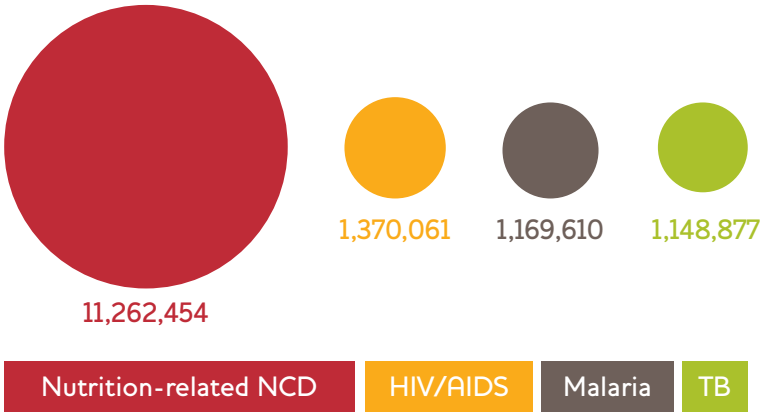
Figure 1 Global deaths by cause and geographic category



Source: Based on data from the Institute for Health Metrics and Evaluation (2013).

Deaths are increasingly caused by NCD, in developed and developing countries alike. Moreover, NCD that has nutrition as a significant risk factor accounts for about half of all deaths from NCD. Put bluntly, cardiovascular diseases and diabetes caused more than three times more deaths in developing countries in 2010 than HIV/AIDS, malaria, and tuberculosis combined (see Figure 2).

Figure 2 Deaths in developing countries in 2010 by cause



Source: Based on data from the Institute for Health Metrics and Evaluation (2013)

This presents a serious challenge to health systems around the world, especially because, unlike many communicable diseases and accidents, NCD treatment is often chronic in nature. For example, a person suffering from diabetes will require regular doses of insulin for the rest of his or her life. Compared with rich countries, poor countries generally have larger out-of-pocket health expenses and higher fractions of health costs borne by patients themselves. Thus, in LMICs – even for those who have escaped severe poverty – impoverishment can reoccur when people are faced with large, lifelong out-of-pocket expenses. For those living close to the poverty line, the high cost of NCD care can plunge households into impoverishment, if care is sought at all.

In India, for example, Mahal *et al.* in 2010 found that about 40 per cent of household expenditures for treating NCD were financed by households, with distress patterns such as borrowing and sales of assets suggesting that the economic burden at the household level is increasing. The same study found that the amount of out-of-pocket expenditures attributable to NCD treatment during 12 months in 1995–6, and again in 2004, increased from 32 per cent to 47 per cent, suggesting a growing importance of NCD in terms of its financial effect on households.

There is not yet enough evidence about NCD prevalence rates across wealth quintiles globally to suggest that they are either diseases of poverty, or wealth, or both. However, it is clear that the impact of NCD on households in the lower wealth quintiles is significant, especially in contexts where people lack health insurance and other social protection mechanisms. This has the distinct potential to reinforce intergenerational transmission of poverty.

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Health system responses

The majority of health systems have been designed to respond to communicable disease and accidents. This means that they are well placed to deal with short, and sometimes intense, periods of care. The long-term and/or expensive treatment implied by NCD, particularly in the later stages of disease, has the potential to cripple health systems around the world, owing to lack of human resources (trained doctors and nurses) and/or financial resources. Health system responses, then, look to alternative care pathways that reduce the potential burden on the formal care sector.

The following health system responses could be adopted to reduce this potential burden:

- **Providing better integrated care**, where NCD is diagnosed at early stages during routine health visits rather than by adding on special programmes designed specifically to combat NCD.
- **Focusing on early detection and education** to prevent people acquiring NCD in the first place through behavioural change.
- **Re-prioritising primary care services**, where trained health workers have the opportunity to identify and deal with health concerns before they develop into serious NCD.
- **Scaling up low-cost drug distribution networks** in combination with prevention strategies and with awareness of potential conflicts of interest.
- **Implementing a patient self-management model**, where those who have contracted NCD control it through personal monitoring of disease status, assuming responsibility for risk factor mitigation through behavioural change and drug adherence.

Each of these responses has its own advantages and drawbacks. Quality of care is of particular concern; access to formal health services and providers, as well as community-based initiatives and civil society organisations, will remain necessary.

Social protection responses

Aside from the health system, social protection strategies have a role to play in both preventing people contracting NCD and mitigating the financial consequences when they do – particularly people in the lower wealth quintiles.

Effective social protection policies have an important role to play in helping tackle nutrition-related NCD. They can:

- Improve the poorest people's access to healthy foods and encourage them to adopt healthy behaviours – for example, through the provision of **cash and food transfers.** As transfers have, in some cases, been found to have perverse effects (i.e. food being sold for cash), programmes should be carefully designed and implemented to ensure that they lead to positive outcomes;
- Help break down barriers to people accessing health services – for example, through **integrated health financing and insurance**, such as community-based health insurance schemes, cash transfers, preventing large out-of-pocket expenditures, and enabling people to meet the costs of user fees;
- **Encourage health-seeking behaviours**, as was done in Mexico's *Oportunidades* programme.

In order for a social protection response to be sustainable in light of the growing NCD burden and its ongoing costs, there needs to be greater **integration of social, health and preventive programmes**. Example initiatives include free or subsidised school meals, or community care committees.

Agri-food system responses

The rapid change in diets, patterns of work and leisure over the past 30 years – referred to as the 'nutrition transition' – is already contributing to the causal factors underlying the increasing burden of NCD, even in the poorest countries. Influencing these patterns requires a number of regulatory approaches. These could include:

- **Facilitating consumer choice by stipulating transparent food labelling**, coupled with education campaigns to ensure that consumers are able to make informed decisions;
- **Restricting marketing of 'unhealthy' foods. This could be achieved through:**
  - **Introducing compositional standards** for specific products – for example, limits on the amount of sodium or trans fats in processed products;
  - **Advertising controls** that prioritise consumers' health, such as those that have been applied in the case of nicotine products;
  - **Pricing controls** to influence food markets. This might include **'taxes' on unhealthy nutrients, ingredients or products**. These controls must be accompanied by careful monitoring to avoid circumvention and to ensure that poor people do not bear the brunt.

Governance responses

Effective policy responses to NCD should be articulated at multiple levels: international, national, state/district and local levels. In all cases, a clear argument has to be made as to why governments need to intervene to address

"A more integrated policy response to nutrition-related NCD must be developed."

a public health issue, as opposed to leaving it as a private or individual concern.

- International governance must create an enabling environment for national-level policymakers to focus on NCD control. This could be about **setting high-level targets,** or by **raising awareness about the social and economic costs associated with NCD**. International donors can also influence national governments through **dedicated funding** to support action to tackle NCD.
- At the national level, governance interventions might be most effective if organised around a **coordinating function**. Given the wide-ranging issues that influence the risk factors for NCD, national governments can **establish cross-sectoral fora to coordinate activity across ministries and with civil society and the private sector.** National governments can also **advance research and development by securing and investing funding** in relevant areas.
- Local policymakers at state or district level have a role to play in **translating government policies into context-specific benefits for citizens**. Local-level policymakers have perhaps the greatest scope to **effect immediate changes** that have huge impacts on people's health – for example, through closing streets at certain times of the day to create public exercise spaces.

Policy recommendations

In order to tackle nutrition-related NCD more effectively:

- **The international development community must recognise the potential for nutrition-related NCD to undermine development progress**. Evidence is emerging that the assumptions that NCD is driven by excess wealth and therefore are not relevant to poverty alleviation are inaccurate. NCD also affects the poorest groups in society and has a disproportionate impact on them, which can reinforce intergenerational transmission of poverty.
- **A transdisciplinary focus on nutrition-related NCD needs to be embraced**. Risk factors for NCD are diverse, ranging from environmental factors to food systems.
- **Global frameworks must create an enabling environment for national policymakers and private sector actors to tackle nutrition-related NCD and help foster partnerships between government, business and civil society**. Global goals, such as those that emerge post-2015, should include targets for tackling nutrition-related NCD to provide focus and bolster political will. New types of political coalition are needed to address the major changes in food systems that are occurring in the context of rapid urbanisation and changing lifestyles.
- **Greater cross-country learning should be facilitated**. There are a number of innovative approaches to tackling NCD in LMICs across the globe that might be just as relevant to high-income countries. At the same time, high-income countries have a head start of several decades in responding to increased prevalence of NCDs.
- **A more integrated policy response to nutrition-related NCD must be developed**. It is unlikely that any single ministry will be able to act alone to tackle the challenges posed by nutrition-related NCD. Individual or uncoordinated policy responses, such as the Mexican 'soda tax', are easily circumvented.

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Further reading

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Credits

This *IDS Policy Briefing* is based on the IDS report *Non-Communicable Disease and Development: Future Pathways*, and was written by **Jeff Knezovich** and **Hayley MacGregor** and edited by **Carol Smithyes**. It was part of a broader project that also included ideas and input from Steven Lally, Gerry Bloom, Mark Davies, Spencer Henson, Andrés Mejía Acosta, Keetie Roelen, and Martina Ulrich. It was produced as part of the IDS Policy Anticipation, Response and Evaluation Programme, Horizon Scanning sub-theme. The programme is funded by UK aid from the UK Department for International Development.

The opinions expressed are those of the authors and do not necessarily reflect the views of IDS or the UK government's official policies.

AG Level 2 Output ID: 248

ISSN 1479-974X