



Silent Killer, Economic Opportunity: Rethinking Non-Communicable Disease

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Summary points

- Non-communicable diseases (NCDs) are the greatest cause of deaths and disability for humans. Usually slowly developing conditions such as heart disease, cancer, asthma, diabetes and depression, some are preventable and others amenable to cost-effective treatment.
- Cumulative losses in global economic output due to NCDs will total \$47 trillion, or 5% of GDP, by 2030. Modest investments to prevent and treat NCDs could bring major economic returns and save tens of millions of lives.
- As populations urbanize and grow, tobacco and alcohol use, poor diet and inactive lives will drive up deaths globally by 17% in the next 10 years.
- A coherent response might prioritize tobacco control and child nutrition, focus innovation on efficient community-based models of care, and ensure access to basic off-patent medicines.
- Although the most effective interventions on tobacco, food and alcohol contain fiscal and regulatory threats for individual industries, these merit consideration given the positive economic effects for businesses in general.
- Sustainable, balanced economic policy can consider low rates of NCDs as a measure of success. Where the economic benefits outweigh the costs, civil society has a major role to play in harnessing an effective response to NCDs.

Introduction

Non-communicable diseases (NCDs) are a major global challenge, one that causes most of the deaths and disability among humans.

These diseases are not transmissible from one person to another. They include cardiovascular disease, cancer, chronic respiratory disease, diabetes and mental health disorders, but exclude injuries. Together, they caused 36 million deaths in 2008, more than three out of five deaths worldwide, and accounted for half of global disability. About one-quarter of deaths occur before the age of 60, mainly in low- and middle-income countries. Without preventive action, the number of deaths under 60 in poor countries will rise from 3.8 million each year to 5.1 million by 2030.¹

For low-income countries, the challenge of NCDs compounds the difficulties of addressing infectious diseases, creating a double burden that causes poverty and slows development. The World Economic Forum predicts that NCDs will result in a cumulative loss in global economic output of \$47 trillion, or 5% of GDP, by 2030, principally through heart disease, stroke, alcohol misuse and depression in high- and upper-middle-income countries.²

The risk factors for NCDs are social, environmental, behavioural and biological. Behavioural factors such as alcohol, tobacco use, unhealthy diet or physical inactivity can influence biological processes such as blood glucose, lung function or brain chemistry. In turn, social and environmental factors such as urbanization, air pollution or consumption trends may influence behaviour and biology. Even infectious diseases can be a contributing cause.

The experience of rich countries shows that improvements in risk factors such as tobacco use caused a larger decline in NCD deaths than treatment did, despite increasing obesity.³ However, in other countries, modifiable risk factors are spreading at an alarming rate. The good news is that many NCDs are amenable to low-cost intervention. The World Health Organization (WHO) has

identified cost-effective ‘best buys’, largely focused on tax and regulation. Reducing risks from tobacco, alcohol, poor diet and physical inactivity prevents up to 80% of all heart disease, stroke and diabetes, and more than 40% of cancers.⁴

On 20 September 2011, a high-level meeting at the United Nations addressed NCDs for the first time. The premise was that political interest at the domestic level was weak and solutions would benefit from international cooperation. The political declaration that followed framed NCDs as an important economic and development issue. However, member states committed little in terms of resources or implementation. Cooperation at scale can only be contemplated when targets are available in 2012, but it is likely that progress will be limited.

Actors and interests in other areas of international affairs have historically slowed and sometimes actively blocked progress. The tobacco industry opposed goals and policies, in order to undermine the WHO Framework Convention on Tobacco Control.⁵

Tensions across international agencies and national ministries have also hindered progress. For example, in the early stages of the tobacco framework discussions, the Food and Agriculture Organization opposed interventions on the grounds of concerns about potential job losses. Such tensions present both a risk and an opportunity for international actors. Transparent, innovative processes to address competing interests could improve policy responses to NCDs.

This briefing paper reflects on the challenges that face international actors responding to NCDs. It identifies areas for further research and policy development, such as mental health disorders. It describes the uncertainties around population growth, the range of actors at several levels of governance, and the trade-offs inherent in fiscal and regulatory intervention. Finally, the paper discusses a new policy narrative, which must address the drivers of our motivation and behaviour. This vision needs to be linked to other interdependent priorities in international affairs.

1 Beaglehole, Robert et al. (2011), ‘Priority actions for the non-communicable disease crisis’, *The Lancet* 377: 1438–47.

2 Bloom, David et al. (2011), ‘The Global Economic Burden of Non-communicable Diseases’, World Economic Forum, Geneva, http://www3.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf.

3 Gay, Juan et al. (2011), ‘Mortality Amenable to Health Care in 31 OECD Countries: Estimates and Methodological Issues’, OECD Health Working Papers, No. 55, Organisation for Economic Cooperation and Development, Paris.

4 World Health Organization (2011), ‘Global status report on non-communicable diseases’, http://whqlibdoc.who.int/publications/2011/9789240686458_eng.pdf.

5 This is widely attested in the literature. See, for example, <http://tobaccocontrol.bmj.com/content/early/2011/06/15/tc.2010.042093>.

The UN response

The WHO developed a global plan for NCDs in 2008. However, countries from the Caribbean Community, managing high levels of diabetes and unaffordable treatments, called for a high-level response from the UN. Academics also played a leading role, in particular through a series of articles in the journal *The Lancet*.

New data showed that progress was more elusive in low- and middle-income countries, and was holding back progress on infectious diseases and development goals. The full burden of NCDs also became clear to policy-makers and professionals. Medical professional groups and NGOs joined forces in 2009 to form the NCD Alliance, aimed at improving engagement by parts of civil society.

UN sessions sometimes have weak effect, but the summit on HIV/AIDS in 2001 gave hope that this could be a pivotal moment for NCDs. Advocates felt that leadership and cooperation at the international level could strengthen accountability. Others sought to strengthen the WHO and the role of international actors in health.

Political analysis in the run-up to the high-level meeting highlighted differences between NCDs and HIV/AIDS. With donor programmes up and running, and a social movement focused on the price of medicines, hopes for targets and action on HIV/AIDS were high. By contrast, falling budgets, weak public interest, disagreement among policy-makers, and the interests of several global industries undermined the hopes of a leap forward on NCDs.⁶

The WHO developed a tight agenda, focused on four diseases and four shared risk factors. The biggest killers were chosen: cardiovascular disease, cancer, diabetes and chronic respiratory disease. The most obvious risk factors they shared were tobacco use, alcohol misuse, poor diet and physical inactivity. Wide adoption of interventions would achieve a fall in deaths of 2% per year, saving tens of millions of lives by 2020.⁷

Box 1: WHO best-buy interventions*

- Protect people from tobacco smoke and ban smoking in public places
- Warn about the dangers of tobacco use
- Enforce bans on tobacco advertising, promotion and sponsorship
- Raise taxes on tobacco
- Restrict access to retailed alcohol
- Enforce bans on alcohol advertising
- Raise taxes on alcohol
- Reduce the salt content of food
- Replace trans-fat in food with polyunsaturated fat
- Promote public awareness about diet and physical activity

*World Health Organization (2011), 'Global status report on non-communicable diseases', http://whqlibdoc.who.int/publications/2011/9789240686458_eng.pdf

UN political declaration

As UN member states drafted the text, sectional interests, related to industry or politics, exerted their influence. The final political declaration is notable for its absence of a broad goal or set of targets. Countries in North America and Europe called for a postponement of targets for at least one year, while framing them as voluntary guidance from the WHO. This is in stark contrast to the 2001 UN summit on HIV/AIDS, where concrete targets gave advocates and policy-makers an instrument to scale up interventions.⁸

The declaration sets out a broad range of factors affecting NCDs, such as poor maternal and child health, or indoor air pollution. There is nominal recognition of other NCDs, including mental health disorders. The declaration also encourages a multi-sectoral, multi-level response.

Some areas of dispute between member states produced mixed results. The declaration contains important positive language about the established role of tax as a cost-effective tool for controlling tobacco use. However, the language is

6 Sridhar, Devi et al. (2011), 'Getting the Politics Right for the September 2011 UN High-Level Meeting on Non-communicable Diseases', Center for Strategic and International Studies, Washington, DC, http://csis.org/files/publication/110215_Sridhar_GettingPoliticsRight_Web.pdf.

7 Beaglehole et al. (2011). 'Priority actions'.

8 *The Lancet* Editorial (2011), 'Time for action in New York on non-communicable diseases', *The Lancet*, 378: 961.

not robust for alcohol. Flexibility also remains to use trade exceptions for medicines to increase access where there are public health concerns.

However, little is specific on international cooperation, coordination or partnership. Health-system development, the regulation of industry, and policies in education, environment, agriculture and transport remain grey areas. Unsurprisingly, there are no global commitments for finance or other resources.

The WHO will develop a global monitoring framework over the next 12 months to address major weaknesses in data. UN member states have also agreed to strengthen national plans by 2013 and report to the UN General Assembly the following year. The rest of this paper shows why implementation may be weak, and what risks and opportunities lie ahead for international actors.⁹

Economic risk and opportunity

Economic policy-makers and businesses concerned with capital and labour costs have good reasons to consider the burden from NCDs. The predicted cumulative losses of 5% of GDP would be even larger if the economic value and utility that people attribute to health were adequately captured.¹⁰

NCDs also contribute to macroeconomic imbalances. In 2008, roughly four out of five NCD deaths occurred in low- and middle-income countries, up sharply from just under 40% in 1990. Countries with a surplus balance of payments may want increased domestic consumer spending. However, because of the way their health systems are structured, their populations are vulnerable to unexpected high medical bills. This encourages people to save (for such bills) rather than spend.¹¹ To limit health-related precautionary saving, surplus countries such as China are trying to extend health insurance and coverage of service. However, out-of-pocket payments for health care, as well as social care costs, are likely to rise without intervention on NCDs.

Returns on investment

Health spending is not just concerned with consumption. There are strong economic incentives to invest. For every dollar invested in NCDs, one can expect three dollars in return.¹² More recent estimates suggest returns multiplied by a factor of ten. For example, the World Bank reviewed the economic benefit of reducing cardiovascular disease alone by 1% per year from 2010 to 2040. In China, this could generate more than \$10.7 trillion, equivalent to 68% of China's real GDP in 2010.¹³

The total cost of completing the full set of best-buy interventions across all low- and middle-income countries is \$11.4 billion per year. This is equivalent to an annual investment of under one dollar per person in low-income countries, and three dollars in upper-middle-income countries. Such costs make up 4% of total health spending in low-income countries and less than 1% in upper-middle-income countries.

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However, cost-effective population interventions for mental health disorders also need research, development and investment. By 2030, they will account for one-third of lost economic output from NCDs.¹⁴

9 United Nations General Assembly (2011), 'Political declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases', http://www.un.org/ga/search/view_doc.asp?symbol=A%2F66%2FL.1&Lang=E.

10 Bloom et al. (2011).

11 Barnett, S. and Brooks, R. (2010), 'China: Does Government Health and Education Spending Boost Consumption?', International Monetary Fund, Working Paper No. 10/16.

12 Beaglehole, Robert et al. (2011), 'UN high-level meeting on non-communicable disease: addressing four questions', *The Lancet* 378: 449–55.

13 World Bank (2011), 'Toward a healthy and harmonious life in China: stemming the rising tide of non-communicable diseases', http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/07/25/000333037_20110725011735/Rendered/PDF/634260WP00Box30official0useOnly090.pdf.

14 Bloom et al. (2011).

Health system financing

Low- and middle-income countries face increasing costs as a result of unmet need and high user fees. Each year, direct payments for health services push 100 million people into poverty.

Out-of-pocket payments exclude 1.3 billion poor people from gaining access to health services; they consistently encourage health service overuse by people who can pay and underuse by those who cannot. In 2007, such fees represented 50% of total health expenditures in 33 countries. Only when the percentage falls to 15–20% does the risk of poverty become negligible.¹⁵

Constrained aid budgets and limited innovative financing raise further concerns. NCDs are driving and aggravating these cost pressures. However, the long-term trend is that low- and middle-income countries are significantly increasing their investment in health systems, such that it dwarfs contributions from donors.¹⁶

It is best to invest now while costs are low. Community-based care offers improved coverage, sustainability and cost-effectiveness. Countries such as Brazil, China, Colombia, Ghana, Kyrgyzstan, Rwanda, Sri Lanka and Thailand have made great strides in coverage. For those still donor-dependent, progress requires increased accountability to local taxpayers.

In contrast, advanced economies urgently need to recognize the challenge of fiscal stress caused by unfunded liabilities linked to ageing societies. Deficit countries are under pressure to cut government spending. As technology develops, the fixed costs of health systems will increase.

This financial burden forces socially and politically uncomfortable trade-offs. Health and social care reform must provide incentives for home care for chronic diseases, and disincentives for high-cost interventions with limited clinical efficacy. Without reform, the cost of health care will rocket, becoming as high as 25% of GDP in high-income countries.¹⁷

The role of trade

Trade can affect NCDs, for example through increased exposure to potentially harmful commodities, notably tobacco, unhealthy foods and alcohol. Indirect effects occur through changes in labour markets, leading to economic insecurity and unemployment.

Conversely, trade treaties may contribute to a decline in the spread of risk factors, for example by reducing domestic subsidies for agricultural exports harmful to health (e.g. sugars, fats, tobacco). The removal of tariffs on the import of off-patent drugs may promote greater access to key medicines.

International businesses have recognized the challenge of NCDs to future business models. Pharmaceutical companies are gaining stronger protection for patents, while promoting a cut in price controls. However, stronger monopolies and reduced regulatory flexibility may aggravate the grave disparities in access.

Bilateral and regional agreements may tiptoe around previous World Trade Organization agreements, such as the Trade Related Aspects of Intellectual Property Rights (TRIPS). In 2001, this agreement affirmed the goal was to promote access to medicines for all.¹⁸ To date, trade interests remain impervious to the broad range of concerns. The broader economic costs for trading partners, including those arising from ill health, need closer examination.

Development and NCDs

In Africa, infectious disease causes 69% of deaths, but the death rate in specific age groups for NCDs remains higher than in any other region, several times higher in younger adults. NCDs will surpass infectious diseases as the leading cause of death in Africa by 2030.¹⁹

NCDs and their risk factors can reduce household earnings and the ability to provide for and educate children. People with NCDs are also more likely to be absent from work, become unemployed or retire early. In India, one in

15 World Health Organization (2010), 'The World Health Report: Health Systems Financing', http://www.who.int/whr/2010/10_summary_en.pdf.

16 Institute for Health Metrics and Evaluation (2010), 'Financing Global Health 2010: Development Assistance and Country Spending in Economic Uncertainty', http://www.healthmetricsandevaluation.org/sites/default/files/policy_report/2010/financing_global_health_report_chapter3_IHME_1110.pdf.

17 International Monetary Fund (2010), 'Macro-Fiscal Implications of Health Care Reform in Advanced and Emerging Economies', <http://www.imf.org/external/np/pp/eng/2010/122810.pdf>.

18 Abbott, Frederick (2005), 'The WTO Medicines Decision: World Pharmaceutical Trade and the Protection of Public Health', *American Journal of International Law* 99: 317.

19 Holmes, Michelle et al. (2010), 'Non-Communicable Diseases in Sub-Saharan Africa: The Case for Cohort Studies', *PLoS Med* 7(5): e1000244.

four families in which a family member has cardiovascular disease will pay for health services at the expense of necessities such as food, clothing or education. This drives some families into poverty.

The UN political declaration recognizes:

the threat [NCDs] pose to the economies of Member States, leading to increasing inequalities between countries and populations, thereby threatening the achievement of the internationally agreed development goals, including the Millennium Development Goals.

The rationale is convincing for the inclusion of NCDs in future development goals. The human cost is vast, but the opportunity is huge for development actors. Simple measures could save 30 million lives over the next 10 years.²⁰

To implement the WHO Action Plan, governments have to develop policies across sectors to prevent and control NCDs. Economic and social policies aimed at reducing poverty will have to address their impact on NCDs. In doing so, policy must consider continuing risks for NCDs from infectious disease, poor maternal and child health, and environmental degradation.

Recent research shows that environmental conditions in the womb can make individuals vulnerable to NCDs. The first 1,000 days of life strongly influence characteristics such as taste, hunger and energy use. Child malnutrition or harmful toxins produced by maternal malnutrition, obesity, stress and smoking may all increase risk.²¹ Maternal and child health programmes can therefore be regarded as NCD programmes. In addition, one-fifth of cancers are attributable to chronic infections, mostly preventable through vaccines and medicines.²²

In the household environment, three billion people live in homes where stoves or fires burn solid fuels such as wood, dung, charcoal or agricultural waste. Two million deaths

occur each year as a result of smoke inhalation from rudimentary stoves – twice as many as malaria. Fortunately, better cooking technology is available at low cost, and countries such as India and China are rolling out national programmes.²³

Broader development challenges also affect NCDs. Population growth, gender inequality, urbanization, food and agrarian distress, unemployment and low wages can all play a role. Therefore, it is important for national policy-makers to consider the policy mix, especially those policies that influence child health and population growth.

Health research, development and innovation

Innovation in health care is an issue for fiscal stability and domestic consumption. It also drives cost-effective clinical intervention. Policy, strategy, finance and governance need careful consideration. It is essential to engage with communities, civil society, providers and professions to achieve sustainable change.

Reforms should be underpinned by operational research so that best practice can be scaled up and policy assessed properly; good data about results are crucial. The WHO monitoring framework will therefore become an important source of metrics for health systems and economies. However, evidence will only be influential when there are strong networks linking researchers with policy-makers.

Access to medicines

Each year, \$5.3 trillion is spent worldwide on health care.²⁴ In rich countries, a potent mix of high-cost diagnostics, expensive surgery and new drugs add cost pressures, with mixed, often slight benefits for patients.

Improvements in cost-efficiency and delivery need to go hand-in-hand with new product development. Informed debate is sorely needed among the public and health professionals. The alternative is similar to the

20 Beaglehole et al. (2011), 'Priority actions'.

21 Lake, Anthony (2011), 'Early childhood development – global action is overdue', *The Lancet* 378: 1277–8.

22 Gay et al. (2011).

23 World Health Organization (2011), 'Tackling the Global Challenge', WHO Press Release, http://www.who.int/mediacentre/news/releases/2011/air_pollution_20110926/en/index.html.

24 Mattke, Soeren et al. (2011), 'Improving Access to Medicines for Non-Communicable Diseases in the Developing World', RAND Corporation, http://www.rand.org/pubs/occasional_papers/OP349.html.

situation in social care – with huge differences in access to affordable treatment.

In low-income settings there is a variation of up to 90% in drug and vaccine prices.²⁵ Using off-patent drugs and applying regional mechanisms for financing and procurement can bring costs down. Governments have an important role to play in the efficient production, distribution and pricing of medicines. Cost-effective interventions can benefit from national guidelines. Treatment thresholds can be set on the basis of social values and available resources, rather than on the arbitrary criteria used in rich countries. In turn, governments need to pass on any price discounts. Finally, private-sector expertise may bring improvements in quality and delivery.²⁶

Public-private partnerships may also encourage investment, protect innovation and ensure timely, equitable access to new medicines. Governments will need to assess what patented drugs they need. Public health emergencies may require compulsory licences where alternative interventions are not available and wholesale prices are extreme.

For pharmaceutical companies, the rise of NCDs in middle-income countries represents a lucrative market – even more so when health systems are fragmented and unregulated.²⁷ Fortunately, off-patent medicines are available for heart disease and diabetes, although costs continue to vary widely.

Access to pain relief

NCDs such as cancer require palliative care, particularly towards the end of life. An estimated 80% of people who die in low- and middle-income countries have no or inadequate access to basic pain relief such as morphine, despite their inclusion on the WHO list of essential drugs.²⁸ The humanitarian implications are huge. This lack of availability is not because morphine is costly or difficult to get hold of. One consequence of the ‘war on drugs’ has been disjointed policy. The International

Narcotics Control Board has frequently approved quotas of controlled narcotics grossly insufficient for treating clinical pain. Concern about the illicit use of morphine has tied the hands of health professionals in countries as diverse as India, Colombia, Egypt and Ukraine.²⁹

Mental health disorders – the invisible challenge

NCDs include psychiatric, neurological, musculoskeletal, gastrointestinal and kidney diseases. They all received mention at the UN meeting, and several may yet find themselves integrated into monitoring and national planning. However, given their global burden and cost, mental health issues stand out for special consideration.

One in every four families has someone with mental health problems. Although low-cost interventions are viable options in non-specialist settings, a lack of attention and investment follows historical neglect in research and policy.

In most countries, mental health spending is no more than 2% of the health budget, with 80–90% of funds going to hospital provision. There are few consumer, carer or other civil-society organizations with a focus on mental health; inadequate protection of the rights of people with mental illness; and little in the way of efforts to promote social and economic inclusion.

A key issue for further research is the effect of broad social and economic change on mental health resilience. Given that utility and value are central to economics, efforts to promote populations’ mental health and well-being ought not to be marginal considerations for international actors.³⁰

Security considerations

The sheer scale of deaths from NCDs prompts some consideration of security consequences. The direct effects can limit military recruitment and preparedness.³¹

Indirectly, states concerned with social tension resulting from unemployment and economic inequity may consider

25 World Bank (2011).

26 Mattke et al. (2011).

27 International Monetary Fund (2010), ‘Macro-Fiscal Implications’.

28 Nickerson, J.W. and Attaran, A. (2012), ‘The inadequate treatment of pain: collateral damage from the war on drugs’, *Plos Med* 9(1): e10001153.

29 Shetty, Priya (2010), ‘The parlous state of palliative care in the developing world’, *The Lancet*, 376: 1453–4.

30 Lund, Crick et al. (2011), ‘Poverty and mental disorders: breaking the cycle in low-income and middle-income countries’, *The Lancet* 378: 1502–4.

31 BBC News (2010), ‘US youngsters are too fat to fight, warn generals’, <http://news.bbc.co.uk/1/hi/world/americas/8655651.stm>.

the effects of NCDs. More broadly, further pressures on health and social care in low- and middle-income countries are likely to be a source of public dissatisfaction.

However, as with HIV/AIDS, indirect relationships to instability and conflict warrant scrutiny. Further research is essential – for example, how mental health issues relate to radical or extremist discourse, or how instability affects mental health, beyond the direct effects of conflict and gender-based violence.

The World Bank reports that health improvements from NCD interventions occur in a shorter period than commonly believed – within a year or a few years rather than decades.³² So there are interventions that produce quick results. However, concerns around food, water and other resources, drivers of NCDs and driven by climate change, are likely to be where the interests of health and security policy-makers coincide most closely.³³

Policy responses to NCDs

The problems outlined above represent a daunting challenge. They were born out of economic and social policy trends in the late 20th century. Environmental changes and technological development contributed to a drop in physical activity. The food energy supply dropped, then surged, largely for commercial reasons. As soon as the supply changed, a tipping point was reached, increasing weight across populations. The physiological, behavioural and environmental influences became asymmetric. Gaining weight is chiefly the result of a normal response, by normal people, to an abnormal situation.³⁴

Almost no country has reversed the obesity epidemic. In a few countries the rise in obesity is beginning to level off, or success is being achieved in schools through strong measures.

One common policy approach is to stress the importance of individual choice and responsibility. The premise is that educated, virtuous consumers will act in their own long-term interests, and consume in moderation even in the face of heavy marketing and promotion.

Education and media campaigns do have limited effects on behaviours that are habitual or current (e.g. food choices, sun exposure or physical activity). Unfortunately, the experience of the 20th century clearly demonstrates that this will not address the burden and risks presented by NCDs.

Businesses and industry, with a profit imperative and an enormous apparatus of advertising, are effective at nudging people to want and potentially need their products. Educational measures, such as those to encourage the consumption of healthy food, are unlikely to be an effective strategy by themselves. It is difficult to sustain positive campaign results given the psychological influence of social norms, the biological bases for our food preferences and motivation for physical activity,³⁵ and the drive of physical addiction or psychological dependence associated with particular ingredients such as nicotine and alcohol.

A second approach has been to eradicate particular forms of consumption altogether. For tobacco and alcohol there have been prohibitions in various forms. Again, the experience has been cautionary; such bans tend to succeed only when strongly backed up by religion or culture.

A third approach is through regulating the market to channel and influence consumer behaviour towards restrained and less harmful use. Alcohol and tobacco regulation show this can be quite effective. Regulation may paradoxically increase choices for the individual, but can also result in the substitution of other harmful products and behaviours. Regulation is also inherently subject to changes in political direction, while voluntary approaches that encourage self-regulation by industries have a mixed record.

Policy disincentives

The history of public health policy shines a light on the key disincentives to act. Those whose health is at stake make up a much more diffuse group, relatively unorganized, unaware and inarticulate in comparison with industry and lobbyists. For government, institutional inertia is a long-standing risk, given the underplayed role of NCDs.

³² Beaglehole et al. (2011), 'UN high-level meeting'.

³³ Friel, S. (2011), 'Climate Change, Noncommunicable Diseases, and Development: The Relationships and Common Policy Opportunities', *Annual Review of Public Health* 32: 133–47.

³⁴ Rutter, Harry (2011), 'Where next for obesity?', *The Lancet*, 378: 746–7.

³⁵ Gortmaker, Steven et al. (2011), 'Changing the future of obesity: science, policy, and action', *The Lancet* 378: 838–47.

Many countries have insufficient capacity. Their governments are also vulnerable to strong corporate interests. For example, policy processes in developing countries receive notable financial and technical support from industry think-tanks that often consider a narrow range of evidence.

For ministers of finance, taxation is an important source of government revenue. For example, in some states of India, alcohol taxes account for as much as 23% of total taxes, compared with 2.4% in EU countries. Yet even in Europe, minimum pricing and limits on availability have stalled.³⁶

Similarly, tobacco manufacturers pay governments nearly \$133 billion in excise tax revenues.³⁷ These short-term, limited revenues have discouraged governments from undertaking tobacco control, despite evidence of net economic costs and effects on labour and capital in other industries.

Where politicians follow short-term outcomes, they find treatment investments an easy sell and shy away from prevention. There is a plethora of national reports and strategic plans showing an awareness of the threat of NCDs without achieving their stated goals. The risk factors chosen for intervention are subject to individual habit and choice, and public and cultural debate. Often interventions are simply not acceptable.

The costs to industry must also be acknowledged. Beyond costs for government, media campaigns and surveillance (which formed the basis of WHO calculations), those for research, reformulation, marketing and new technology need to be factored in. Even when governments understand them, and businesses align their interests, regulations are often only aimed at large companies.

For example, the International Food and Beverage Alliance (IFBA) sells 10% of all packaged foods in developing countries. Participation from small and medium-sized enterprises is therefore important, but they often lack the resources or incentives to reduce the sugar, salt and fat content of their foods. Local government has an important role here.³⁸

Strategic uncertainties

Population growth

Fertility rates have an important impact on the absolute number of NCDs. Projections show there is an 85% chance that the world population will peak by the end of the century. However, population falls are likely to vary by region. Estimates suggest there is a 10% chance that the world population in 2100 could be less than six billion and an equal chance that it could exceed 11 billion.³⁹

Significant drops in fertility mean the proportion of working people declines and that of pensioners increases. The global population is ageing at an increasing pace that is unlikely to slow down until mid-century.⁴⁰ NCD deaths will inevitably increase. However, in rich countries there is evidence that as populations get older, with reductions in NCD risk factors and improved health care, time spent living with disabilities may not increase.

Classically, as countries develop, the main cause of death changes from infectious diseases to NCDs. Today's rich countries have managed to get the former largely under control, with slow declines in disability and rapid declines in death rates from NCDs.

In contrast, poorer countries are facing stubbornly high burdens from NCDs. Some populations are growing quickly with ongoing burdens from infectious disease. They are also urbanizing and face a flood of risk factors for NCDs. Any country strategy must consider the effect of population growth. Interventions that improve child nutrition and survival rates will limit population growth and reduce the burden from NCDs.

Governance of interconnected global risks

NCDs are one of many interdependent long-term risks that have crept onto the international agenda. A key question is whether there is resilience in the face of NCDs. Governance needs a networked approach, with

36 World Health Organization (2010), 'Equity, Social Determinants and Public Health Programmes, 2010', http://whqlibdoc.who.int/publications/2010/9789241563970_eng.pdf.

37 World Health Organization (2011), 'WHO Report on the Global Tobacco Epidemic, 2011', http://whqlibdoc.who.int/publications/2011/9789240687813_eng.pdf.

38 Yach, Derek et al. (2010), 'The role and challenges of the food industry in addressing chronic disease', *Globalization and Health* 6:10.

39 Lutz, Wolfgang (2011), 'Global Demography: Population Inflation', *The World Today* 67: 5.

40 Ibid.

thought given to which departments and sectors are held accountable, and how. Good management may prove crucial in creating a collective sense of ownership. Governments have a convening role, one that can build trust and collaboration between actors and provide transparent processes to resolve conflicts. For NCDs, there are good and bad examples of this across countries.

Governments can also show strategic leadership and provide support to drive implementation at local levels. They can heighten awareness of economic opportunities or risks. Often they will manage risks with limited evidence or unexpected effects of policy measures. Clear principles for action and rules to adjust plans can be pre-set so that risks and trade-offs are considered routinely. Governments can also support research and impact assessment, for example when developing metrics of success for interconnected areas of policy.⁴¹

For health ministries, frequently detached from central policy-making or disempowered in the face of corporate interests, the challenges are that much greater. However, resources can be set aside to analyse the feasibility and impact of health interventions in other sectors. Presenting co-benefits may prove to be a powerful tool, with an outward-looking approach to policy development and evaluation.

The United Nations can support member states through supporting global and regional fora. This can take both formal and informal shapes, to allow frank and open discussion between the different actors and interests. The WHO will play a crucial role in monitoring, sharing case examples, and helping with national planning and target-setting.

Towards a new policy narrative

The UN High-level Meeting on NCDs provides an opportunity to balance and reinvigorate policy. Whether this happens will depend on the political context, and the narrative driving it. International actors will no doubt consider the varied effects across low-, middle- and high-income countries. Countries such as China, India, Indonesia, Russia and Brazil will now face the biggest surge in economic costs of NCDs over the next 20 years.⁴²

The rising financial burden will call for socially and politically uncomfortable trade-offs. In weak health systems, this may involve significant shifts to community-based models. In developed health systems, the public, civil society, industry and health providers will not have much sympathy for beleaguered government officials trying to restrict the use of services. National debates are a likely precondition if NCDs are tackled successfully in the long term.

Engagement by civil society is crucial given the scale of the task and role of individuals and groups. NCDs have not resonated as an unjust and singular issue to give rise to a social movement. The image of a middle-aged obese alcoholic with heart disease does not create the same sense of injustice or societal failure as an innocent child infected with HIV. In addition, there is no fear factor. HIV is infectious. If more people have it, you have a higher chance of getting it. This creates anxiety even where sexual behaviour is characterized as a lifestyle choice. NCDs do not trigger that type of concern.⁴³

Policy-makers also shrug their shoulders, choosing selectively from international evidence to minimize any regulation. These policies keep a narrow focus on the economic benefits from any single industry, subjugating other interests in the private and public sectors. However, there are signs that some businesses are adapting. Stratified business models now exist, with healthier product lines promoted as better or good. Such self-regulation is the favoured approach by industry. However, traditional products, while providing consumer value and choice, continue to contribute to the NCD burden alongside new unhealthy products.

Civil society therefore has much to do to reframe the debate and promote strategies that work to address NCDs. Success in tobacco control in developed countries provides a template for addressing narrow commercial interests given wider economic and social concerns. Civil society might start by pointing out that the choice is obvious – it is cheap to do and has big economic benefits for rich and poor.

41 Jones, Harry (2011), 'Taking responsibility for complexity,' Overseas Development Institute, Working Paper 330.

42 Bloom et al. (2011).

43 Jake, Marcus (2011), 'Treating a Silent Global Epidemic,' National Public Radio, online article accessed 29 April 2011, <http://www.npr.org/2011/04/29/135833372/new-republic-treating-a-silent-global-epidemic>.

Strategic priority – tobacco control

Tobacco use is the single most important risk factor for NCDs. It kills six million people each year. This figure will rise to eight million people a year by 2030 and tobacco-related tuberculosis could add a further million.⁴⁴

Implementing policies to cut tobacco use improves health and quickly reduces healthcare spending. Just one year after quitting smoking, the risk of heart attack falls by half. Even in tobacco-producing countries, the economic gains from tobacco production and trade are questionable given the wider effects on workforce health, productivity and living standards.⁴⁵

However, since 2005, only 11% of countries have fulfilled their legally binding commitments within the Framework Convention on Tobacco Control. The rising toll of 15,000 tobacco-related deaths each day is testament to the scale of failure by governments worldwide. As many as one billion people could die of smoking-related illnesses this century if this situation continues.⁴⁶

While tobacco use is declining in most wealthy countries, it is increasing in many poor ones, with deep consequences for the future of public health and development. As stock prices for tobacco continue to rise – underscoring the confidence of financial markets in tobacco – governments and civil society can remove barriers to implementation, constituted by:

- Investment treaties and associated pressures to open markets;
- Fears about job losses in the agricultural sector, and subsidies for harmful crops;
- Illicit trade in cigarettes and tobacco smuggling; and
- Constraints on tobacco taxation and the regulation of advertising.

Throughout the 1980s and 1990s, the United States, Japan and other tobacco-producing countries used bilateral trade measures to prise open emerging Asian economies to cigarette consumption. Countries that were unprepared for intensive tobacco marketing found that tobacco use rose sharply, particularly in young people and women.⁴⁷

‘Civil society might start by pointing out that the choice is obvious – [tobacco control] is cheap to do and has big economic benefits for rich and poor’

Trade exceptions could limit the ability of tobacco companies to abuse trade dispute resolutions and to block effective advertising and labelling measures. This follows the precedent of other trade disputes where exceptions exist to reflect security, taxation or environmental concerns.⁴⁸

Such strategies may partially address the dual goals of promoting trade and reducing global tobacco use. However, given the broader economic and health effects of tobacco, the NCD Alliance has a more ambitious aim – to reduce the prevalence of tobacco use to less than 5% by 2040.

Conclusion

Recognition of interconnected global risks is now commonplace. NCDs have their place alongside economic risks such as infectious diseases, illicit trade, migration, terrorism, food insecurity and perhaps even climate

44 Basu, Sanjay et al. (2011), 'Projected effects of tobacco smoking on worldwide tuberculosis control: mathematical modelling analysis', *British Medical Journal* 343; doi: 10.1136/bmj.d5506.

45 Glantz, Stanton and Gonzalez, Mariaelena (2011), 'Effective tobacco control is key to rapid progress in reduction of non-communicable diseases', *The Lancet* 378; doi: 10.1016/S0140-6736(11)60615-6.

46 World Health Organization (2011), 'WHO Report on the Global Tobacco Epidemic, 2011', http://whqlibdoc.who.int/publications/2011/9789240687813_eng.pdf.

47 Gannon, Seth and Fisher, Matt (2011), 'U.S. Foreign Policy and the Global Tobacco Trade', Center for Strategic and International Studies, Washington, DC, online article accessed 23 September 2011, <http://www.smartglobalhealth.org/blog/entry/u.s.-foreign-policy-and-the-global-tobacco-trade/>.

48 Bollyky, Thomas J. (2011), 'Forging a New Trade Policy on Tobacco', Centre on Foreign Relations, New York US, Policy Innovation Memorandum No. 7, <http://www.cfr.org/trade/forging-new-trade-policy-tobacco/p25658>.

change. They have global scope, cross-industry relevance and high economic and social impact, and there is uncertainty about their long-term effects. It is fitting that the United Nations, World Bank and World Economic Forum are taking a closer look.

It is also clear that inadequate governance of externalities is the norm. Local, national and global levels need regulatory capacity. If the UN High-Level Meeting leads to a more concerted effort by international and domestic actors to consider interdependencies, and challenge long-established debates over what is in the national interest, then it can be judged a success.

The WHO list of best buys is feasible and affordable for low-income countries. The priority is tobacco control. Achieving the goals of the WHO Framework Convention on Tobacco Control is a must. The absence of low-cost palliative care also represents a shocking failure to relieve pain and protect human rights.

Health system reform will be a major challenge in an era of financial austerity and beyond. New technologies will play a role in solving the NCD challenge, yet they are often expensive and risk raising costs with marginal returns for health and efficiency.⁴⁹ In other areas, such as education and child health, strong policy will have big latent effects – not just for mental health disorders and other NCDs, but for population growth, which in turn influences the distribution of NCDs.

Turning the tide of policy is as much about families, schools and communities as the UN General Assembly. NCDs, simply because they cause so much collective disability, must take their place on the international stage, as they already do in our lives.

The search for engaging policy narratives continues, but perhaps it is time to stop thinking of health as something we get at the doctor's office. We can no longer assume doctors, ministries of health or indeed the WHO can pick up the pieces. We can, however, begin to imagine a healthier more prosperous world, by making sound investments at home and in international policy.

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⁴⁹ International Monetary Fund (2010), 'Macro-Fiscal Implications'.