

# Using economic evidence to support policy decisions to fund interventions for non-communicable diseases

Economic analysis of interventions to reduce non-communicable diseases can encourage countries to increase investment, say **Melanie Bertram and colleagues**

**T**he global burden of non-communicable diseases (NCDs) is rising, and financing needs in low and middle income countries are increasing rapidly. This has led to a growing global debate about the required response and how to finance it. Current levels of investment in preventing and controlling NCDs in almost all low and middle income countries are insufficient to meet health and development targets. Global estimates suggest that investing in a set of cost effective and feasible interventions would prevent 8.1 million premature deaths and generate \$350bn (£270bn; €310bn) in economic growth between 2018 and 2030.

To support low and middle income countries to make the economic case for greater domestic and international financing for NCDs, the World Health Organization and UN Development Programme are supporting countries to develop NCD investment cases, providing economic arguments on the benefits of expanding their NCD responses. Eight countries have completed investment cases and another 10 are in progress. The case for investment incorporates both economic (return-on-investment analysis for interventions) and political perspectives to ensure that the recommendations are made

in the context of institutional capacities and economic and political environments. We describe the investment case work in the broader context of NCD financing along with some examples of how the investment cases have been used to support policy change in the Americas.

## NCDs in the global health financing agenda

Non-communicable diseases (NCD) are responsible for around 8.5 million premature deaths a year in low and lower middle income countries, with cardiovascular disease responsible for roughly 40% of these deaths and cancer 27%.<sup>1</sup> The economic losses associated with untreated NCDs are predicted to be \$47tr over the two decades from 2010.<sup>2</sup> Lack of political prioritisation and action for NCD prevention and control places the world at risk of not only failing to meet the sustainable development goal (SDG) target 3.4 of reducing premature mortality from NCDs by a third but also slowing economic growth.

In 2017, the World Health Assembly endorsed a set of “best buys” and other recommended interventions for the prevention and treatment of NCDs. The best buys are high priority, low cost interventions that can be implemented in all settings if political will can enable it.<sup>3</sup> Countries can select from the list of best buys and other recommended interventions to suit their national context. This selection

process could follow that recommended by WHO in the consultative report on making fair choices towards universal health coverage (box 1).<sup>4</sup>

Implementing the best buy interventions in all low and lower middle income countries would prevent 8.1 million premature deaths (before age 70) between 2018 and 2030, representing a reduction of almost 15% in total premature mortality from NCDs.<sup>5</sup> Expanding cancer treatment and tackling other NCDs such as chronic obstructive pulmonary disease and kidney disease are crucial additions to the best buys in order to achieve the SDG targets.

To rapidly implement the best buys for all four of the main NCD risk factors—tobacco, harmful use of alcohol, unhealthy diet, and physical inactivity—and scale up the treatment best buys to reach 50% coverage by 2030 will cost an estimated \$0.62 per capita in low income countries and \$1.44 per capita in middle income countries. This is an average of just \$1.27 a year for every person in these countries.<sup>5</sup> Given average per capita health spending globally is \$1011 a year,<sup>6</sup> it seems feasible and affordable for countries to make these investments, particularly as the interventions also have the capacity to generate additional revenue.<sup>7</sup>

Investing in NCD prevention and control has both health and economic benefits, through increasing workforce participation

## KEY MESSAGES

- Non-communicable diseases need greater investment to meet the sustainable development goal targets
- The solutions do not lie entirely within the health sector
- Analysis of the economic costs of NCDs strengthens arguments to fund interventions
- Development of investment cases can help identify which cost effective interventions are best suited to each country and stimulate multisectoral action

## Box 1:

### WHO recommendations on selecting NCD interventions<sup>4</sup>

- Interventions that are most cost effective
- Interventions that protect against financial risk
- Interventions that prioritise the poorest people

### Additional considerations

- Current and future projected disease burden in the country
- Priority government sectors that need to be engaged (particularly health, trade, commerce, and finance)
- Concrete coordinated sectoral commitments based on co-benefits for inclusion in national SDG responses

and social value.<sup>8</sup> Since most of the 8.5 million premature deaths from NCDs will occur among the working population, the overall economic burden from NCDs comes mainly from loss of workplace productivity. Global estimates suggest that investing in the NCD best buys yields a return of at least \$7 for every \$1 invested by 2030.<sup>5,8</sup> This equates to \$350bn in economic growth between 2018 and 2030.<sup>5</sup>

In 2015, the world spent \$7.3tr on health, or 10% of global gross domestic product (GDP).<sup>6</sup> Domestic financing is the dominant source of financing for health, with development assistance responsible for only 0.3% of health spending globally.<sup>6</sup> However, this 0.3% is crucial in the lowest income countries, where 33% of health financing comes from these external resources. In four low income countries, more than half of current health expenditure is from external resources. As countries increase their income, they become less reliant on aid, with lower middle income countries financing 97% of health expenditure from domestic resources, and upper middle income countries 99%.<sup>6</sup> Although the global system of health accounts 2011 enables countries to report on disease specific expenditures,<sup>9</sup> NCD expenditures are a recent addition and there is still much to learn in this area.

Despite the known statistics on health expenditure, global rhetoric around financing for NCDs often focuses on the need for increased donor resources rather than mobilising domestic resources.<sup>10-12</sup> Given the level of spending on NCDs in the most developed economies,<sup>13</sup> domestic resourcing will clearly be required in all countries, but catalytic investments and innovative financing options such as the proposed NCD and Mental Health Catalytic Trust Fund are crucial in meeting the current needs. Global figures on the economics of investing in NCD prevention and control provide advocacy for policy decisions, but this can be strengthened by country level data.

Economics has become a more accepted analytical language in public policy because of the need to use resources more efficiently as donor financing becomes more scarce. It therefore has a critical role in building bridges between public health and non-health sectors to advance multisectoral NCD action.<sup>15</sup> Health authorities can use economics to communicate challenges and solutions in a manner that resonates with other sectors. Economics is usually associated with two types of analysis: costing the implementation of

interventions and calculating the burden of disease in monetary terms. However, economics provides a wider framework that can provide insights throughout the policy design and evaluation process.

#### Country investment cases

The 2018 political declaration of the UN General Assembly on the prevention and control of non-communicable diseases<sup>16</sup> highlights the importance of engaging beyond the health sector to develop ambitious national responses to the NCD related targets included in the SDGs. Many of the factors influencing NCDs lie outside the health sector so action is required across government with the engagement of civil society and the private sector.<sup>17</sup> Using common language and methods across different sectors for prioritising budget allocations, such as cost-benefit analysis or return-on-investment analysis, can support policy dialogues and reduce conflict between government sectors competing for the same pot of funding.

Clear quantification of financial requirements, along with economic data to support requests for additional domestic or donor financing, is crucial in expanding multisectoral action on NCDs. Country led investment cases are economic and political analyses of current and potential future interventions to prevent and control NCDs in a particular country.<sup>8</sup> The aim is to identify the ongoing and escalating costs of inaction as well as the benefits of investing in prioritised areas of action. A case for investment, as used here, incorporates both economic and political perspectives, thereby ensuring that the recommendations are made in the context of a country's institutional capacities and political environment. The investment case methods have been developed specifically to circumvent the current paucity of data on NCD financing by systematising, aggregating, and interrogating local data with relevant institutions, such as national statistics offices and finance ministries.

The WHO United Nations Interagency Task Force on NCDs secretariat and UNDP has been working with countries to develop investment cases outlining the economic benefits of strengthening the national NCD response within the context of the 2030 Agenda for Sustainable Development. To date investment cases have been completed in Barbados, Belarus, Fiji, Jamaica, Kyrgyzstan, Mongolia, Saudi Arabia, and Uzbekistan, with the goal of supporting governments to develop compelling arguments for

population-wide, prioritised, and coherent investments in NCD prevention and control. Ten other countries are creating investment cases.

The two main components of the investment case are an economic analysis (return on investment) and an institutional and context analysis.<sup>18</sup> The return-on-investment analysis calculates the financial investment needed and the potential economic returns from implementing a set of country specific priority interventions, as well as defining the costs of inaction (baseline or business as usual). These interventions are either specified in a national plan of action on NCDs, derived from the 88 actions defined in WHO's global action plan,<sup>3</sup> or identified during the institutional and context analysis.

The institutional and context analysis outlines the diverse range of institutions—their power relations, capacities, and incentives—that affect NCD related policy, instruments, and responses in a given country.<sup>19</sup> It provides recommendations to help ensure that the numbers, narratives, and policy options emerging from the economic modelling are heard, understood, and acted upon, as well as supporting identification of the priority actions to be included when calculating return on investment.

Experience of using investment cases in countries shows that they have the potential to help ministries of health to better understand funding priorities and to reconsider orienting health budgets towards more investments in the prevention and control of diseases rather than spending money on treating illnesses and their consequences. An investment case also provides evidence that health ministries can use to back their requests to finance ministries for increased investment in NCDs, as well as justification for development partners to start or increase their investments in the prevention and control of NCDs. Investment cases have also helped countries in planning national efforts to tackle NCDs, specifically supporting the implementation of new excise taxes on tobacco, alcohol, and sugar sweetened beverages; salt reduction campaigns; risk communication strategies such as warning labels; national childhood obesity strategies, better tobacco and e-cigarettes legislation and regulation; and NCDs being incorporated into national development plans and UN development assistance frameworks. Yet, gaps remain in translation of this economic evidence into policy decisions.

### Harnessing economics to improve multisectoral action

The solutions to the NCD epidemic are not entirely within the control of health authorities.<sup>17</sup> Governments in the Americas have begun taking multisectoral actions on NCDs that are aligned with both health and finance policy agendas and interests, in particular taxing of harmful products. Nevertheless, engagement and collaboration of sectors such as finance, trade, education, agriculture, or transportation, remains a challenge for many health authorities in the region.

Analyses grounded in economic reasoning such as national NCD investment cases are becoming instrumental in advocating for action on NCDs across government sectors. Evidence about the substantial adverse effect of NCDs on GDP, through both high treatment costs and decreased productivity, has convinced sectors beyond health to implement NCD prevention policies. For example, in 2018 Peru's ministry of finance increased taxes on tobacco, alcohol, sugary drinks, and fuel—citing the average annual cost of NCDs, which is equivalent to 11% of GDP, and the need to reduce the harms to health caused by these products.<sup>20 21</sup>

Jamaica's investment case, which evaluated the return on investment for selected tobacco, alcohol, diabetes, and cardiovascular disease interventions,<sup>22</sup> provided a powerful monetary value for raising awareness about the importance of acting to prevent and control NCDs. The findings have been prominent in the national public discourse, broadcast on prime news programmes,<sup>23</sup> and referenced by the ministers of finance and health in calling for increased investments in health—highlighting the importance of NCDs and empowering individuals, families, and communities to contribute to a whole of society response.<sup>1</sup>

Besides providing a powerful advocacy tool, the process of conducting economic studies can help highlight the need for improvements in the availability and quality of data. The availability of national data on treatment costs in Barbados, for example, would have improved the applicability of its investment case findings. The lack of data showed the need to include health expenditure as well as multisectoral socioeconomic data within epidemiological surveillance systems.<sup>15</sup>

Although economic studies can provide a basis for multisectoral collaboration on NCD action, this is an iterative process.

The NCD investment cases in Peru (ongoing) and Jamaica built on existing collaborations between the ministries of health and finance on tobacco taxation and expanded the collaboration to other NCD risk factors. Because policy landscapes change and the need for new evidence arises, engagement with other sectors, including civil society and academia, needs to be ongoing to facilitate whole society action to tackle NCDs.

The investment case process has highlighted the value of local institutions sharing and analysing data across sectors to develop budgets and policy. Which incentives exist, and how they collide or reinforce each other, is therefore an important consideration in investment cases. The economic data stimulate a dialogue about what societies value in building NCD responses—this could be health, economic productivity, or societal aspects.

Although the investment cases are based on robust evidence and accepted academic literature, they are not meant to be the final word. The focus in their delivery remains on advocacy, and WHO and UNDP are piloting follow-on components that would allow countries to take a deeper look at specific components such as tobacco control, mental health, air pollution, and harmful use of alcohol. Using economic data to support policy making will hopefully lead to a transparent and consistent approach to policy decision making and increased efficiency in health sector spending.

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