



World Health  
Organization

# Saving lives, spending less

A strategic response to noncommunicable diseases



# Saving lives, spending less

## Document highlights

This page summarizes the findings of "Saving lives, spending less: A strategic response to noncommunicable diseases". This document lays out, for the first time the health and economic benefits of implementing the most cost-effective and feasible interventions to prevent and control NCDs (WHO Best Buys) in low- and lower-middle-income countries. The main findings of this document are:

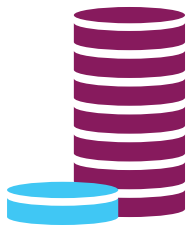


An additional

**US\$ 1.27**

per person per year in low- and lower-middle-income countries is needed to implement the WHO Best Buys

## What will low-and lower-middle-income countries get for this investment?



**US\$ 1 US\$ 7**

Every **US\$ 1** invested in the WHO Best Buys will yield a return of at least **US\$ 7** by 2030



**15%**

A **15%** reduction in premature mortality could be achieved by 2030 by implementing the WHO Best Buys



**17 M**

Implementing the WHO Best Buys will prevent over **17 M** cases of ischemic heart disease and stroke by 2030 in low- and lower-middle-income countries



**8.2 M lives**

can be saved by 2030 in low- and lower-middle-income countries by implementing the WHO Best Buys



Implementing the WHO Best Buys can generate

**US\$ 350 B**

in economic growth between now and 2030

# Foreword

**Dr Tedros Adhanom Ghebreyesus**  
**Director-General, World Health Organization**

The human toll of noncommunicable diseases (NCDs) is unacceptable. These diseases including – cardiovascular diseases, cancer, diabetes, chronic respiratory diseases and mental disorders – are the leading causes of death worldwide, and carry a huge cost that extends beyond health to undermine workforce productivity and economic prosperity. NCDs are also becoming an issue of equity. They disproportionately affect low- and lower-middle-income countries, and in all countries the poorest and most vulnerable are the most at risk and the least likely to have access to treatment.

WHO has a bold new strategic plan that builds on lessons learned and experience gained with its 70-year history. We are dedicated to three core aims: ensuring that 1 billion more people benefit from universal health coverage; that 1 billion more people are better protected from health emergencies; and that 1 billion more people enjoy better health and well-being. NCDs are relevant to all three: progress towards universal health coverage will increase access to services to prevent, diagnose and treat NCDs, without out-of-pocket expenses impoverishing people; protecting people from the impact of health emergencies includes continuity of care for people who suffer from NCDs; and improving health and well-being requires intensified action against the world's leading causes of death and disease.

*Saving lives, spending less: a strategic response to noncommunicable diseases* equips countries and donors with the information they need to prioritize their actions. For the first time, the financing needs for tackling NCDs in low- and lower-middle-income countries have been calculated and translated into health and economic returns. Crucially, the document presents the most cost-effective, feasible interventions by which these outcomes can be realized.

The overarching message is optimistic. Governments and donors are invited to view tackling NCDs as an opportunity to achieve better health outcomes and improved economic performance. If all countries put in place the most cost-effective interventions, by 2030 they will not only save millions of lives, but also see a return of US\$7 per person for every dollar invested.

**“For the first time the financing needs for tackling NCDs in low- and lower-middle-income countries have been calculated and translated into health and economic returns.”**



**Michael R. Bloomberg**  
**WHO Global Ambassador for Noncommunicable Diseases**

For the first time in history, more people are dying from NCDs – such as cancer, diabetes, and heart disease – than from communicable diseases like malaria and tuberculosis.

This is a serious and growing problem that has not gotten the attention it deserves. NCDs kill nearly 41 million people each year, many of them well under the age of 70. About 1% of global health funding is dedicated to preventing and treating NCDs in low- and middle-income countries, where they account for nearly 80% of deaths.

NCDs also impose a huge financial burden in health costs and lives cut short – and the countries that bear the greatest burden are the low- and middle-income countries that can least afford it.

Part of the problem stems from a misconception: governments tend to accept deaths from NCDs as unavoidable – but they are not. A different future is possible. We can turn the tide on NCDs and the suffering they cause. What's more, a relatively small investment can help to prevent enormous costs.

This document makes the economic case for bold action against NCDs, and outlines some of the most effective ways to reduce their toll, which can help to direct more resources to where they are needed most. By spreading those measures around the world – and raising awareness of the urgency of the challenge – we can save millions of lives.



# Investing to save lives

Maximizing the impact of every dollar spent is crucial if we are to tackle one of the biggest health challenges of our time: NCDs. These conditions including – cancer, diabetes, heart diseases and chronic respiratory diseases – cause far more deaths and disability than any other group of diseases. NCDs are the largest cause of death in the world, and their impact undermines multiple aspects of national development, including economic growth, productivity, social welfare, education and quality of life. For low- and lower-middle-income countries in particular, NCDs are a growing challenge, with the majority of all premature deaths occurring in these countries.<sup>1</sup>

In public health as in finance, investors are committed to seeing the greatest impact for every dollar spent. Increasingly, this can extend beyond health gains and towards other impacts such as economic, environmental and social returns. The best NCD policies can provide returns in all of these domains. This means that by investing in them, countries can avoid the health and economic impact of NCDs, and also maximize the benefits for other areas of development.

To help countries achieve this, the World Health Organization (WHO) has identified a set of interventions that are considered affordable, cost-effective and evidence-based. Implementing these will deliver the greatest possible health impact in reducing illness, disability and premature death from NCDs. For this reason, they are known as the ‘WHO Best Buys’.

This document provides policy-makers, funders and other stakeholders with an overview of the value of investing in NCDs, and the health impact and economic returns that can be expected from using the right policies.

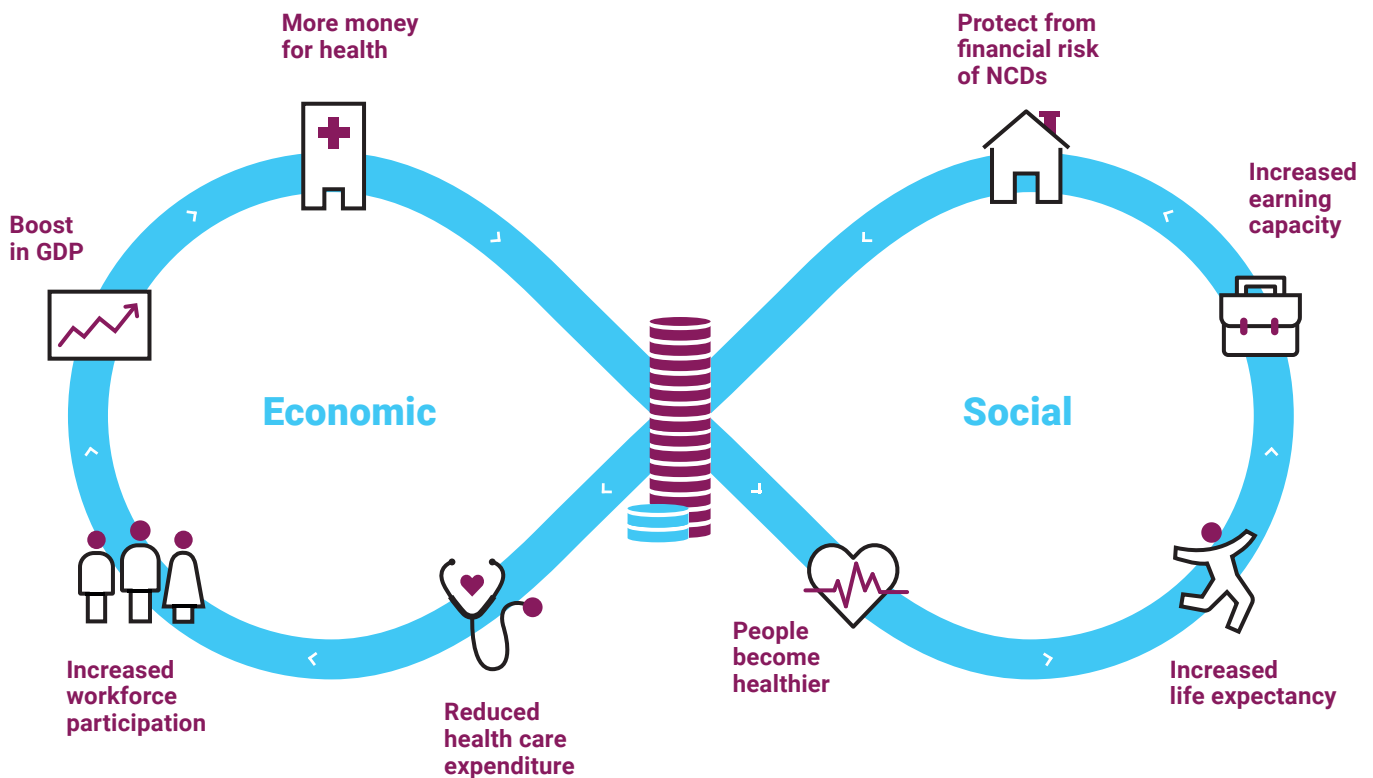
**“Maximizing the impact of every dollar spent is crucial if we are to tackle one of the biggest health challenges of our time: NCDs.”**

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<sup>1</sup> NCD mortality and morbidity. Global Health Observatory [online database]. Geneva: World Health Organization; 2018 ([http://www.who.int/gho/ncd/mortality\\_morbidity/en/](http://www.who.int/gho/ncd/mortality_morbidity/en/)).

# The value of preventing and controlling NCDs

Investing in NCD prevention and control not only improves health and saves lives, but can also improve a country's economic productivity. It can improve workforce participation and productivity, and limit the financial burden of unexpected health costs from NCDs on individuals and families. Investment is particularly important in low- and lower-middle-income countries, where the NCD burden continues to rise, and health systems are less resilient.



Delivering the  
**greatest** possible  
health impact





# The best investments

The Best Buys are both cost-effective and feasible for countries to implement. They cover six policy areas: tobacco use; harmful use of alcohol; unhealthy diet; physical inactivity; the management of cardiovascular disease and diabetes; and the management of cancer.

Within these areas there are 16 targeted interventions. These interventions show the best evidence of generating impact and value – for health, the economy and other areas of national development.

These policies are stronger and more beneficial when used together. For example, campaigns that both promote physical activity and ensure the availability of low-salt food options are more likely to reduce people's long-term risk of developing cardiovascular disease.

Countries can select a single intervention based on their need and build on this with additional interventions. As the number of interventions that a country implements increases, there is a compound increase in benefits.



SDG target 3.4 By 2030 reduce by one-third pre-mature mortality from non-communicable diseases (NCDs) through prevention and treatment, and promote mental health and wellbeing.

## Best Buy interventions

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### Reduce tobacco use



#### Tax

Increase excise taxes and prices on tobacco products



#### Packaging

Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages



#### Advertising, promotion and sponsorship

Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship



#### Smoke-free public places

Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places and public transport



#### Education

Implement effective mass-media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke

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### Reduce harmful use of alcohol



#### Tax

Increase excise taxes on alcoholic beverages



#### Advertising

Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)



#### Availability

Enact and enforce restrictions on the physical availability of alcohol in sales outlets (via reduced hours of sale)

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### Reduce physical inactivity



#### Education

Implement community-wide public education and awareness campaigns for physical activity, including mass-media campaigns combined with other community-based education, motivational and environmental programmes aimed at supporting behavioural change around physical activity levels

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**Reduce unhealthy diet**



**Reformulation of food**

Reduce salt intake through the reformulation of food products to contain less salt, and the setting of maximum permitted levels for the amount of salt in food



**Supportive environments**

Reduce salt intake through establishing a supportive environment in public institutions such as hospitals, schools, workplaces and nursing homes, to enable low-salt options to be provided



**Education**

Reduce salt intake through behaviour change communication and mass-media campaigns



**Packaging**

Reduce salt intake through the implementation of front-of-pack labelling



**Manage cardiovascular disease and diabetes**



**Drug therapy and counselling**

Provide drug therapy (including glycaemic control for diabetes mellitus and control of hypertension using a total risk approach) and counselling for individuals who have had a heart attack or stroke and for persons with high risk ( $\geq 30\%$ ) of a fatal or non-fatal cardiovascular event in the next 10 years



**Prevent and manage cancer**



**Vaccination**

Vaccination against human papillomavirus (2 doses) of girls aged 9 to 13 years



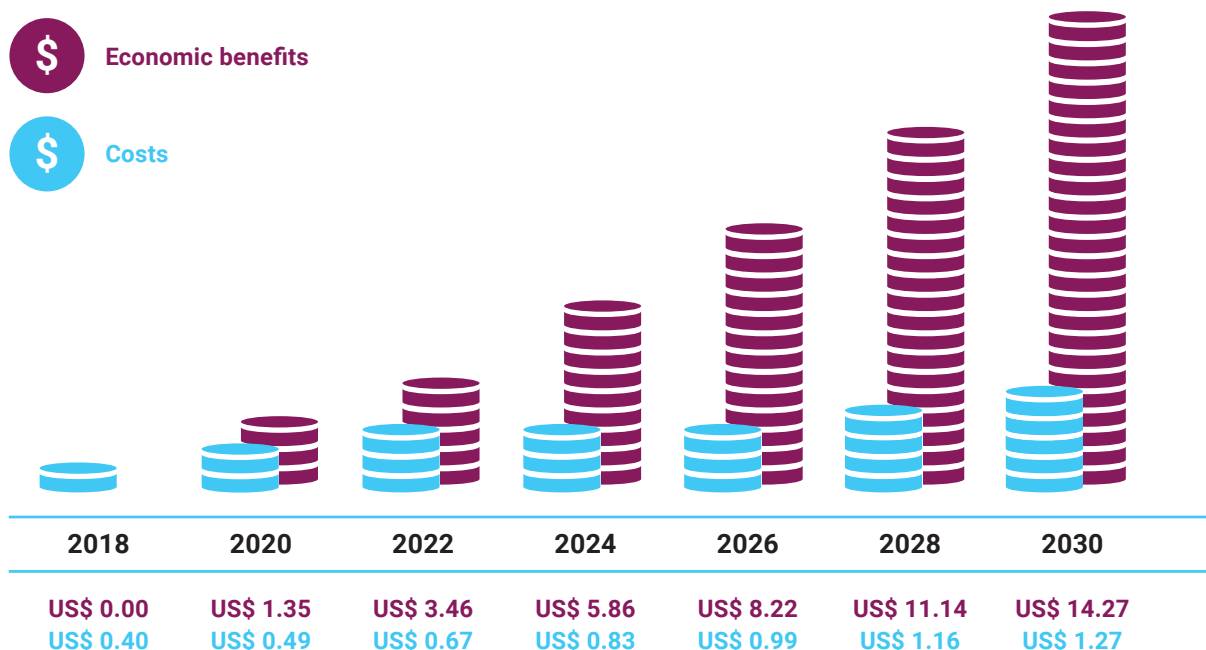
**Screening**

Prevention of cervical cancer by screening women aged 30 to 49 years, either through: visual inspection with acetic acid linked with timely treatment of pre-cancerous lesions; pap smear (cervical cytology) every 3–5 years, linked with timely treatment of pre-cancerous lesions; human papillomavirus test every 5 years, linked with timely treatment of pre-cancerous lesions

# Health impact and economic returns

The economic analysis in this document calculates the health impact and economic returns that could be achieved by low- and lower-middle-income countries adopting and ambitiously scaling-up the Best Buy interventions. Using the methodology of the WHO Sustainable Development Goal Health Price Tag,<sup>3</sup> the cost of implementation was calculated for 78 low- and lower-middle-income countries.<sup>4</sup> The cost of implementing the Best Buys was calculated both as an entire package of all 16 interventions, and as individual disease or risk factor-specific packages. The health outcomes (deaths averted, incident cases averted and healthy life years gained) were also calculated following the same methodology. The return on investment for each of these packages was calculated using a peer-reviewed methodology for cardiovascular disease investment, expanding the interventions and number of countries.<sup>5</sup>

## Economic benefits of the Best Buy package per person, per year in low- and lower-middle-income countries



Based on an ambitious scale-up pattern where all policy interventions are immediately implemented and pharmaceutical interventions reach 50% coverage in 2030. Many of the investments needed are in prevention activities. As such, although investments are required immediately, benefits will only begin to be seen in the following year.

<sup>3</sup> Stenberg K, Hanssen O, Tan-Torres Edejer T et al. Financing transformative health systems towards achievement of the health Sustainable Development Goals: a model for projected resource needs in 67 low-income and middle-income countries. *Lancet Global Health* 2017; published online July 17 ([http://dx.doi.org/10.1016/S2214-109X\(17\)30263-2](http://dx.doi.org/10.1016/S2214-109X(17)30263-2)).

<sup>4</sup> Of the world's 84 low- and lower-middle-income countries, six were excluded: Kosovo (in accordance with Security Council resolution 1244 (1999)) and the West Bank and Gaza Strip were excluded as they are not WHO Member States; South Sudan, Somalia and the People's Democratic Republic of Korea were excluded because of a lack of GDP data. Kiribati was excluded because of insufficient baseline epidemiological data.

<sup>5</sup> Bertram MY et al. Investing in non-communicable diseases: an estimation of the return on investment for prevention and treatment services *Lancet* 2018. [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)30665-2/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)30665-2/fulltext)

For up to an additional  
**US\$ 1.27**

per person per year, in low- and lower-middle-income countries between now and 2030, we can:

### Improve health impact



Save over  
**1,700**  
lives per day



Save over  
**628,586**  
lives per year



Save nearly  
**8.2 M**  
lives

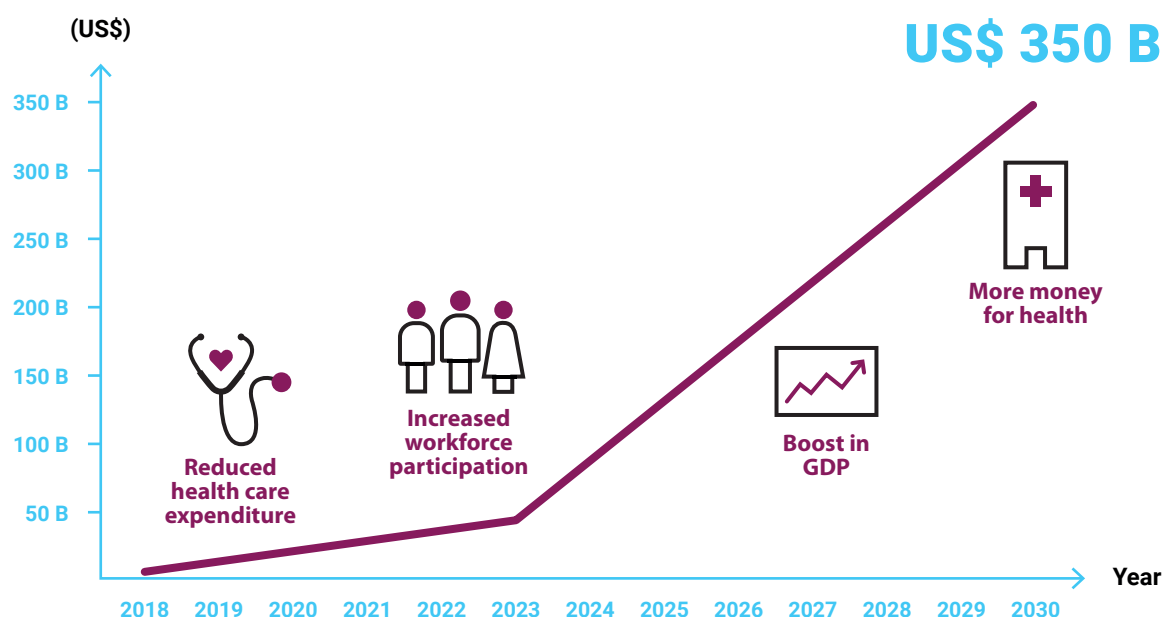


Prevent over  
**17 M**  
cases of ischemic heart disease and stroke



Reduce almost  
**15%**  
of total premature mortality due to NCDs

### Generate economic output







**US\$ 7**

**Every US\$ 1 invested in all Best Buys  
will yield a return of at least US\$ 7 by  
2030**

# Best Buys offer

An excellent return on investment\*



\*Reduce tobacco use; reduce unhealthy diet; reduce harmful use of alcohol; reduce physical inactivity; manage cardiovascular disease and diabetes; prevent and manage cancer.

# Financing options to support the Best Buys

## Financing mechanisms to implement the Best Buys

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### Intelligent taxation



**What:** Raise excise taxes on tobacco and alcohol.

**Why:** Raising taxes on tobacco and alcohol is a proven, efficient and cost-effective way for governments to reduce consumption and to raise additional revenue.

**Supporting evidence:** The Addis Ababa Action Agenda 2015 recognizes that tax measures on tobacco can be an effective means to reduce tobacco consumption and health-care costs, and represent a revenue stream for financing for development. Taxation of tobacco and alcohol are both Best Buys. In 2016 WHO analysis estimated that raising cigarette excise in all countries by 1 international dollar (PPP\$) per pack (about US\$ 0.8/pack) would increase cigarette excise revenue by 47%, from PPP\$ 402 billion to PPP\$ 593 billion, giving an extra PPP\$ 190 billion (US\$ 141 billion) in revenue.

### Impact investment



**What:** Encourage public-private investment strategies that generate a measurable impact on health, as well as delivering a financial return to external investors.

**Why:** Impact investments can provide funding to launch or expand programmes that promote health. They are particularly important as a sustainable funding model, because if they are successful they fully cover their own costs.

**Supporting evidence:** The Addis Ababa Action Agenda 2015 highlights the need to align private sector investment with sustainable development. In collaboration with the Canadian MaRS Centre for Impact Investing, in 2016 the Government of Canada launched a social impact bond for prevention hypertension.



### Innovative financing



**What:** Initiatives that ethically and sustainably create a steady source of revenue for national or regional NCD programmes.

**Why:** In a world of limited resources, there is clear appetite for new funding models, especially ones that generate sustainable income. There is also clear interest in public-private partnerships. If properly designed and managed, these can offer a way for governments, development actors and the private sector to pool resources and work together for efficiency.

**Supporting evidence:** Since 2006, UNITAID – founded by a consortium of governments (Brazil, Chile, France, Norway and the United Kingdom) – has used an airline ticket tax in specific countries to fund work. UNITAID plan to invest and make funding commitments starting in 2019 in improved access to health products for people co-infected with HIV and human papillomavirus, the leading cause of cervical cancer. The Government of Norway also funds the work using part of a national tax on carbon dioxide emissions.

### Catalytic funding (grants and/or loans)



**What:** Use targeted donor or development bank funding to help countries cover the initial costs of introducing a new NCD policy.

**Why:** Initial investment can help countries prove the benefits of a new policy, making it easier to guarantee longer-term public investment. It can also increase private sector confidence in a programme, encouraging its participation.

**Supporting evidence:**

**Grants.** Since 2007, Bloomberg Philanthropies has committed US\$ 1 billion to combat tobacco use worldwide. The Government of Italy has also provided catalytic funding for tobacco control programmes in several countries in Africa.

**Loans.** In 2015, the World Bank provided US\$ 350 million to the Government of Argentina to finance the Protecting Vulnerable People Against NCDs project.

### 'Plus one' policies



**What:** Adding an NCD component to an existing health (or non-health) programme.

**Why:** It can improve the efficiency and return on investment of the original programme by using existing infrastructure and integrating additional services.

**Supporting evidence:** The WHO Global Coordination Mechanism for NCDs conducted a review of different financing options for NCDs in 2017, which highlighted that joint programmes can encourage greater overall investment across both communicable and NCD projects in the promotion of a more horizontal approach to health system support.

From 2017 to 2019, the National Cancer Institute of the United States has funded the Government of Uganda to develop and implement a mobile health programme for tuberculosis and tobacco control. The nongovernmental organization Marie Stopes International has also integrated cervical cancer screening and preventative therapy into its existing sexual and reproductive health platforms in 18 countries in Africa and Asia.

## Financing mechanisms to reinforce the Best Buys

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### Divestment



**What:** Consider the portfolio of investments that you hold as a country or a donor.

**Why:** Addressing the financial support that the tobacco industry in particular receives is an important and often overlooked part of the NCD financing challenge. Sovereign wealth funds, pension funds, large retail and investment banks, and insurance companies all hold stakes in industries whose modus operandi are directly at odds with the aims of the global health community.

**Supporting evidence:** The WHO Framework Convention on Tobacco Control guidelines for implementation stipulate that government institutions and their bodies should not have any financial interest in the tobacco industry, and that Parties should not invest in the tobacco industry or its related ventures.

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### Tracking investment



**What:** A new Organisation for Economic Co-operation and Development (OECD) code for tracking NCD investment will soon highlight how much countries are investing in NCD prevention and control.

**Why:** This will help improve transparency around NCD funding and will make identifying successful policies even more critical to show how they deliver value for money.

**Supporting evidence:** This action was an invitation to the Development Assistance Committee of the OECD as part of the 68th United Nations General Assembly.

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## Call to action

The global burden of NCDs constitutes a major public health and development challenge worldwide. The scale of human suffering caused by NCDs is unacceptable, as the majority of these diseases are preventable. This document makes it clear that the slow progress in tackling the NCD epidemic should no longer be attributed to either a lack of information on the efficacy of interventions, or obstacles to financing their implementation.

The Best Buys are the most feasible and cost-effective interventions to prevent and control NCDs. For an additional investment of up to US\$ 1.27 per person per year between now and 2030, substantial progress towards Sustainable Development Goal 3.4 can be achieved and millions of lives saved.





**Act now**

**to save 8.2 M lives and  
boost economic growth**



**For more information visit:**  
**[www.who.int/ncds/management/ncd-ambassador/en](http://www.who.int/ncds/management/ncd-ambassador/en)**