Actions that Make a Difference

Report on the Prevention and Control of Noncommunicable Diseases in the Western Pacific Region 2012–2013

World Health Organization
Western Pacific Region
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We are grateful to Professor William Bellew for drafting this report with inputs from WHO staff members in the regional and country offices.
Executive summary

Background

• Key actions undertaken with support from the Australian Agency for International Development (AusAID), the background rationale for these actions and their impact on the prevention and control of noncommunicable disease (NCD) in Western Pacific Region countries are described in this report. The urgent need for further work, together with the priority actions and future investment required to allow WHO and its partners to keep on “making a difference” in NCD prevention and control, are set out in the section entitled, “The way forward: blue chip investments”.

• NCDs are a critical health and development issue for the Western Pacific Region and are the leading cause of death in the Region, accounting for more than 80% of deaths.

• With the support of AusAID, the Western Pacific Region addressed the prevention and control of NCDs during the period 2012–2013. The actions that make a difference are so-called because of their consistency with ‘best buy’ interventions, thus representing the most impactful and cost-effective measures to produce accelerated results in terms of lives saved, diseases prevented and major costs avoided. The impacts from these actions are the “headline achievements”, but all outcomes and activities, mapped by objectives, are reported. Supplementary reports also are available to provide even greater detail for the numerous activities undertaken.

Headline achievements

The headline achievements from the actions that make a difference during the period 2012–2013 included:

✓ Boosting tobacco control in the Region through a focus on plain packaging (technical meeting involving Australia, Brunei Darussalam, Brazil, Cambodia, China, Hong Kong (China), Malaysia, Mongolia, New Zealand, Panama, Singapore, Thailand, Turkey, the United Kingdom of Great Britain and Northern Ireland, and Uruguay; tobacco and trade (technical consultation with ministry of trade and ministry of health representatives from 15 countries); and taxation (Pacific Tobacco Taxation Project implemented with Fiji, the Federated States of Micronesia, Papua New Guinea, Samoa, Solomon Islands and Tonga; WHO technical assistance on taxation to the Cambodian Ministry of Economy and Finance; and implementing the Sin Tax in the Philippines).

✓ Promoting salt reduction, (a ‘best buy’) through extensive technical assistance and support to Cambodia, the Lao People’s Democratic Republic, Viet Nam, Cook Islands, Fiji, Kiribati, Tuvalu and Vanuatu.

✓ Reducing the impact of marketing of foods and non-alcoholic beverages to children through the baseline surveys conducted on outdoor advertisements near schools in Mongolia and the Philippines.

✓ Introducing WHO-PEN (the WHO Package of Essential Noncommunicable (WHO-PEN) disease interventions) to countries in order to strengthen the health systems approach to the prevention and management of NCDs (including introductory training for Fiji, Solomon Islands, Vanuatu, Tonga, Samoa and Kiribati).

✓ Building capacity for reducing the harmful use of alcohol at the country level through a training initiative that included Cambodia, the Lao People’s Democratic Republic, Mongolia and Viet Nam.

✓ Advancing the promotion of physical activity in Brunei Darussalam through support for the implementation of National Physical Activity Guidelines; in China, through the “Happy 10” schools initiative, which is expanding to three more provinces; and in the Pacific island countries through the Healthy Islands through Sports initiative.

✓ Strengthening surveillance and multisectoral planning through extensive technical support for WHO STEPSwise Surveillance of NCD risk factors (STEPS) and the Global School-based Student Health Survey (GSHS) and a regional meeting and country-level support dedicated specifically to multisectoral planning for NCD prevention and control.
Outcomes and activities, mapped by objectives

Objective 1: Strengthening surveillance and monitoring NCDs and their determinants

Surveillance is a critical component of NCD prevention and control. The WHO STEPwise approach to chronic disease risk factor surveillance (STEPS) and Global School-based Student Health Survey (GSHS) are the main tools available for assessing population levels of risk factors. Low- and middle-income countries have many constraints when conducting national surveys.

Through the support of AusAID, surveillance for NCD risk factors has been advanced in selected countries of the Region.

WHO STEPwise Surveillance of NCD risk factors (STEPS)

The Pacific island countries were supported to meet the demands at different stages (planning, implementation, data analysis and reporting) in risk factor surveillance. Tonga, Niue and Vanuatu published their baseline STEPS reports, while Tonga, Fiji and Samoa planned or made progress with their respective repeat STEPS survey. Cook Islands planned to do a repeat STEPS survey and was supported to move ahead with the planning.

A technical meeting was held in Auckland, New Zealand, in November 2012 to train 14 experts from around the Region to support Western Pacific Region countries. A new code has been written based on the WHO/International Society of Hypertension (ISH) risk charts so that tables describing absolute risk of a fatal or nonfatal cardiovascular disease (CVD) event can be added to STEPs reports.

The Lao People’s Democratic Republic was supported to conduct the first national NCD risk factor survey using WHO STEPS tools. Technical assistance was provided to develop the survey protocol, questionnaire adaptation, equipment and training of survey administrators (fieldwork using a personal digital assistant- (PDA) mounted tool) was carried out in March 2013. This survey will help the Lao People’s Democratic Republic identify the prevalence of NCD risk factors and priority areas for intervention. Results of the survey also will serve as a baseline for monitoring trends and working towards achieving the global set of voluntary targets for NCD prevention and control.

Global School-based Student Health Survey (GSHS) and Global School Health Policy and Practices Survey (SHPPS)

Health-related behaviours and protective factors among youth are important inputs for health promotion and disease prevention. A representative survey of schoolchildren in a country can help to assess and monitor these trends. WHO and the Centers for Disease Control and Prevention (CDC) in the United States of America has developed the GSHS tool, which can provide data on exposures, behaviours and protective factors among schoolchildren.

Cambodia, the Lao People’s Democratic Republic and Viet Nam were trained in conducting GSHS. Fieldwork in Viet Nam and Cambodia was supported.

The SHPPS to monitor school policies also were included in the training.

Objective 2: Reducing risk factors and preventing NCDs

Tobacco control

Plain packaging of tobacco products is a path-breaking intervention and can have substantial impacts in tobacco control. Australia, Brunei Darussalam, Brazil, Cambodia, China, Hong Kong (China), Malaysia, Mongolia, New Zealand, Panama, Singapore, Thailand, Turkey, the United Kingdom of Great Britain and Northern Ireland and Uruguay participated in a technical meeting on plain packaging of tobacco products that was held in January 2012 in Brunei Darussalam.

A consultation on Tobacco and Trade was held in the Philippines in July 2012. Representatives from ministries of trade and ministries of health from 15 countries attended. The Western Pacific Regional Office was the first of the six WHO regional offices to host a consultation on tobacco and trade and has shared the meeting report and training materials with the South-East Asia Regional Office, the Eastern Mediterranean Regional Office and the European Regional Office to help them prepare for consultations in their regions.
A Workshop on Tobacco Taxation in the Pacific was held in Auckland, New Zealand, from 18 to 22 June 2012 and included participants from both the ministries of health and ministries of finance in Fiji, the Federated States of Micronesia, Papua New Guinea, Samoa, Solomon Islands and Tonga. Follow-up in-country engagements were conducted in Fiji, Tonga and Samoa in November 2012. Results from these engagements included a WHO report submitted to the Fiji Ministry of Revenue and Customs that was used to provide input to the 2013 budget. The next fiscal budget includes a 10% increase in fiscal and excise duties on cigarettes, tobacco and alcohol.

The WHO report also was submitted to the Samoan Ministry of Finance and Ministry of Health outlining funding options for the Samoa Health Promotion Foundation and a suggested excise duty over the medium term.

The WHO report also was submitted to the Ministry of Revenue of Tonga for internal consideration. It contained a situational analysis for tobacco taxation in Tonga and suggested excise rates for the next three years. In addition, in order to provide solid evidence of the harmful effects of locally grown and packaged Tonga tobacco compared with manufactured cigarettes, samples have been sent to a WHO collaborating centre in Singapore for testing. Samoa and Tonga are making commitments to carry out similar steps for tobacco taxation by their budget session in 2013.

Reducing the harmful use of alcohol

A biregional Workshop on Building Capacity for Reducing the Harmful Use of Alcohol at the Country Level in Coordination with NCD Prevention and Control was held in Bangkok, Thailand, from 22 to 24 October 2012. The Western Pacific Regional Office supported eight participants from Cambodia, the Lao People’s Democratic Republic, Mongolia and Viet Nam, two temporary advisers and six Secretariat members.

Reducing the impact of an unhealthy diet

Promoting healthier diets can have multiple health benefits, including prevention of NCDs. Two priority areas were identified to support countries: salt reduction and implementation of recommendations for marketing food and nonalcoholic beverages to children.

Salt reduction

Technical support for salt reduction was provided to Cambodia, the Lao People’s Democratic Republic and Viet Nam in collaboration with the George Institute for Global Health in Australia. In Cambodia, a salt intake and dietary survey has been carried out in Phnom Penh. The survey is a starting point for development of an advocacy tool and action plan for a national salt reduction programme. In the Lao People’s Democratic Republic, a study of salt consumption was carried out in a subsample of the Vientiane population. In Viet Nam, evaluation of the communication for behavioural impact (COMBI) in Phu Tho Province was carried out.

Salt reduction strategies in the Pacific have been formulated for Cook Islands, Fiji, the Federated States of Micronesia, the Marshall Islands, Kiribati, Tuvalu and Vanuatu through multisectoral salt reduction consultations. In Cook Islands, a Knowledge, Attitude and Behaviour (KAB) survey, Food Frequency Questionnaire (FFQ) survey and a shops survey was conducted. Activities conducted in Fiji were partly funded and contributed to the establishment of salt reduction targets and consultations with the food industry. Some funds also were used to partly support the printing of information, education and communication (IEC) materials and events during the salt awareness week. In Kiribati, Tuvalu and Vanuatu, training to conduct shops surveys was carried out and the surveys have been initiated.

Implementation of the WHO recommendations on marketing food and nonalcoholic beverages to children

The recommendations were endorsed by the World Health Assembly aiming at reducing the impact of marketing of food and nonalcoholic beverages to children. The Philippines and Mongolia were supported in collaboration with the University of Sydney, Australia, to conduct a survey of outdoor advertisements near schools. The two studies have provided useful information that will form the basis of regulations and restrictions to reduce the advertisement and marketing of unhealthy foods and nonalcoholic beverages near schools.

National workshops were partly funded to prevent childhood obesity and reduce marketing pressure on children and were held in Fiji, Samoa and Tonga, in which over 20 schools were supported. The activities were closely related to the health-promoting schools initiative that WHO is implementing in the Pacific.
Draft regulations in Fiji on the marketing of foods and nonalcoholic beverages to children were drawn up under the Food Safety Act 2003. In Cook Islands, the Marshall Islands, Kiribati and Vanuatu, restrictions on the marketing of food and nonalcoholic beverages to children have been included as part of overall draft food regulations that WHO has been supporting through its food control activities.

**Reducing physical inactivity**

Physical activity levels are low in most countries of the Region. A school-based physical activity promotion programme (Happy 10) was implemented in selected schools in China. Based on this experience, the programme will be expanded to other schools in the three provinces (Western Area Health Initiative) in China.

A symposium was held in Brunei Darussalam to support the implementation of the National Physical Activity Guidelines for Physical Education along with a consultative workshop on increasing physical activity among schoolchildren.

In collaboration with The Pacific Research Centre for the Prevention of Obesity and Non-Communicable Diseases (C-Pond), the Secretariat of the Pacific Community (SPC) and the United Nations Development Programme (UNDP), a subregional multisectoral workshop on Trade and NCDs in the Pacific was held in February 2013. The purpose of the workshop was to strengthen the capacity for effective collaboration between health and trade sectors in and across the Pacific island countries.

In the Pacific, in partnership with the SPC and the Australian Sports Commission, technical support has been provided to Cook Islands, the Federated States of Micronesia, Kiribati, Nauru, the Marshall Islands, Tuvalu and Vanuatu to formulate proposals for Healthy Islands through Sports.

**Objective 3: Strengthening health care for people with NCDs**

Health systems in low- and middle-income countries have many limitations in the prevention and management of NCDs because they were developed for acute episodic care and management of communicable diseases. WHO-PEN was found to be very useful in strengthening primary health care.

An assessment of the health centre capacity for integration of WHO-PEN was conducted in Cambodia. It includes identification of gaps in the capacity of health centres. This was followed by a workshop to train programme managers in the introduction of WHO-PEN. Three health centres were selected to implement WHO-PEN in 2013. In Viet Nam, capacity-building for WHO-PEN was carried out in a district, including at 23 commune health stations. The Philippines has introduced WHO-PEN and support was provided to procure test strips for estimating glucose and cholesterol. This has helped in the expansion of the programme. Chongqing in China conducted a survey to assess the capacity of health facilities to introduce WHO-PEN. This experience will now be extended to support other provinces.

In Viet Nam, support for maintaining the integrated model for NCDs in Phu Tho Province was provided through a refresher course on CVD risk management and management of CVD risks at commune health stations.

A background paper was produced to support the regional meeting on strengthening NCD prevention and control in primary care in Beijing, China, in August 2012, which was attended by 32 participants from 10 countries in the Region.

A two-day introductory training course was carried out by Fiji, in which Solomon Islands, Vanuatu, Tonga, Samoa and Kiribati also attended, and it was conducted by both Ministry of Health staff responsible for WHO-PEN and project officers based at WHO. Each country later formulated plans on implementing the feasibility phase for two to three months and has initiated implementation. Additional assistance then was provided to Fiji and Solomon Islands involving a consultancy for assessing the feasibility phase and providing design support for a national roll-out plan.
Objective 4: Developing stronger multisectoral coordination and partnership

Political declaration of the United Nations General Assembly High-level Meeting on the Prevention and Control of Noncommunicable Diseases highlighted the need for multisectoral actions. Technical support was provided to countries to draw up multisectoral action plans. Viet Nam organized a workshop to formulate a national multisectoral strategy for NCD prevention and control with technical support. Technical support was provided to the Lao People’s Democratic Republic to draft a national NCD multisectoral plan. Partial support also was provided to the Regional Meeting on A National Multisectoral Plan for NCD Prevention and Control held in Kuala Lumpur, Malaysia, in June 2012.
NCDs encompass four major health conditions: cancer, cardiovascular diseases, chronic respiratory diseases and diabetes. These diseases are grouped because of their strong relationship to four behavioural risk factors: use of tobacco, unhealthy diets, lack of physical exercise and harmful use of alcohol. In addition, they are linked to four underlying measurable metabolic or physiological factors: excess body weight, high levels of serum cholesterol, high fasting plasma glucose levels and high systolic blood pressure.

The High-level Meeting of the United Nations General Assembly on the Prevention and Control of Noncommunicable Diseases and the adoption of the Political Declaration (United Nations General Assembly Resolution 66/2)1 represented a breakthrough in the global struggle against these diseases. It commits governments to a series of multisectoral actions and to exploring the provision of adequate, predictable and sustained resources through domestic, bilateral, regional and multilateral channels, including traditional and voluntary innovative financing mechanisms.

AusAID is assisting countries to draw up and implement cost-effective options for NCD prevention, including strengthening national capacities for NCD surveillance to monitor the burden of disease attributable to NCDs. This support is also helping to build stronger multisectoral partnerships to support country-level implementation of NCD policies and programmes in the Western Pacific Region.2

NCDs are a critical health and development issue for the Western Pacific. The major NCDs—CVDs, diabetes, cancers and chronic respiratory diseases—cause over 60% of all deaths globally.3 Today, NCDs are the leading cause of death in the Western Pacific, accounting for more than 80% of fatalities.3,4 Of all regions, the Western Pacific is the one projected to have the greatest total number of NCD deaths in 2020 (12.3 million).3

The importance of three strategic pillars for the prevention and control of NCDs has been widely accepted. These are surveillance, prevention and health care delivered through strengthened health systems. These pillars were reaffirmed in World Health Assembly resolution WHA/53.175 and continue to be relevant for WHO Global5 and Regional Action Plans for the Prevention and Control of Noncommunicable Diseases.

With the support of AusAID, the Western Pacific Region addressed four objectives in the prevention and control of NCDs during the period 2012–2013:

• Strengthening surveillance and monitoring of NCDs and their determinants.
• Reducing risk factors and preventing NCDs.
• Strengthening health care for people with NCDs.
• Developing stronger multisectoral coordination and partnerships.

This report highlights the most successful work achieved with AusAID support and with the cooperation and work of Member States in the Region. “The actions that make a difference” is so-called because of consistency with the ‘best buy’ interventions. They represent the most impactful and cost-effective interventions to produce accelerated results in terms of lives saved, diseases prevented and costs avoided.
The final section of this report, “The way forward: blue chip investments”, highlights the urgent need for further work together with the priority actions and future investment required to allow WHO and its partners to keep on making a difference in NCD prevention and control. Key messages imparted are:

(1) NCDs are preventable and cost-effective solutions are available now.
(2) ‘Best buys’ for NCD prevention and control have been identified.
(3) We have clear priorities for action and investments.
Background and actions taken

BACKGROUND

There are an estimated 430 million smokers in the Western Pacific Region, or about one third of the world’s smokers. Compared with the other five WHO regions, the Western Pacific Region has the greatest number of smokers, among the highest rates of male smoking and the most rapid increase of tobacco use among women and young people. It is estimated that in the Western Pacific Region two people die every minute from tobacco-related diseases and half of all men, women and children are regularly exposed to second hand smoke at home and in public places.7

ACTIONS TAKEN

Plain Packaging

The Western Pacific Regional Office provided evidence and stood firmly with Australia in its fight to preserve the plain packaging legislation. It also convened a special Technical Meeting on Plain Packaging (involving Australia, Brunei Darussalam, Brazil, Cambodia, China, Hong Kong (China), Malaysia, Mongolia, New Zealand, Panama, Singapore, Thailand, Turkey, the United Kingdom of Great Britain and Northern Ireland and Uruguay.

Taxation

The Pacific Tobacco Taxation Project was implemented with Fiji, the Federated States of Micronesia, Papua New Guinea, Samoa, Solomon Islands, and Tonga (Box 1). WHO Headquarters and the Western Pacific Regional Office provided technical support to the Cambodian Ministry of Economy and Finance aimed at improving the tobacco taxation system, and for the Philippines Department of Finance and Department on Health in the successful effort to pass the Sin Tax legislation.1

Box 1: The Pacific Tobacco Taxation Project

Pacific Tobacco Taxation Project

• To review and evaluate the current tobacco tax systems in Fiji, the Federated States of Micronesia, Papua New Guinea, Samoa, Solomon Islands and Tonga.
• To design new tobacco tax systems, forecast government revenues under current and potential tobacco tax systems and discuss tobacco taxation as a way to promote public health via increased tax revenues.
• To build capacity for the ministry of health and the ministry of finance to continue to work collaboratively on increasing efficiency and effectiveness of tobacco taxation systems in support of full implementation of the WHO Framework Convention on Tobacco Control.

ii http://www.wpro.who.int/tobaccopacific/tobaccotaxationproject/en/index.html
**Tobacco and Trade**

The Western Pacific Regional Office convened a special Consultation on Tobacco and Trade in Manila in July 2012. Representatives from ministries of trade and ministries of health from 15 countries attended. The Western Pacific Regional Office has shared the meeting report and training materials with the South-East Asia Regional Office, the Eastern Mediterranean Regional Office and the European Regional Office to help them prepare for consultations in their regions.

**Impact of the actions**

**A BRAVE NEW WORLD OF TOBACCO CONTROL**

From 1 December 2012, all tobacco products sold, offered for sale or otherwise supplied in Australia must be in plain packaging and be labelled with new and expanded health warnings.

WHO Director-General Dr Margaret Chan described it as a “brave new world of tobacco control”.

“With Australia’s victory, public health enters a brave new world of tobacco control….With so many countries lined up to ride on Australia’s coattails, what we hope to see is a domino effect for the good of public health.” (15 August 2012)

Dr Margaret Chan
WHO Director-General

The decision on plain packaging of tobacco products is undoubtedly one of the landmark rulings of the High Court of Australia, along with its discussion of public health law, intellectual property law and constitutional law. The High Court of Australia is a well-respected superior court. Its precedent will be influential throughout the world. The ruling will reinforce Australia’s position with respect to international conflicts over the plain packaging of tobacco products such as in the World Trade Organization and in investment tribunals. The decision will also encourage other countries to join an “olive revolution” and introduce plain packaging of tobacco products. After the ruling, Tariana Turia, New Zealand’s Associate Minister of Health, said, “This is more than just a victory for the Australian government, I think it is a global victory”.

Public health experts have indicated that the most likely impact from plain packaging will be a reduction in smoking prevalence in adults and a greater reduction in the numbers of children trying smoking.8 Recent studies conducted in the United Kingdom,9 Brazil10 and Belgium11 support this assessment.

**SIN TAX UNDERPINS IMPLEMENTATION OF UNIVERSAL HEALTH CARE IN THE PHILIPPINES**

In the Philippines, the taxation reform supported by WHO reduces smoking while simultaneously supporting the introduction of universal health care. Total excise tax collection (tobacco and alcohol) is projected to be US$ 814 million in 2013, rising to US$ 1.6 billion by 2017.
Reducing harmful use of alcohol

Background and actions taken

BACKGROUND

The harmful use of alcohol results in 2.5 million deaths each year globally. Alcohol is the world’s third largest risk factor for disease burden; it is the leading risk factor in the Western Pacific and the Americas and the second largest in Europe. A significant proportion of the disease burden attributable to harmful drinking arises from unintentional and intentional injuries, including those due to road traffic accidents, violence and suicides. Fatal injuries attributable to alcohol consumption tend to occur in relatively younger age groups.

Alcohol is associated with many serious social and developmental issues, including violence, child neglect and abuse and absenteeism in the workplace. It also causes harm far beyond the physical and psychological health of the drinker. It harms the well-being and health of people around the drinker. An intoxicated person can harm others or put them at risk of traffic accidents or violent behaviour or negatively affects co-workers, relatives, friends or strangers. The harmful use of alcohol is also associated with infectious diseases such as HIV/AIDS, tuberculosis and sexually transmitted infections (STIs). This is because alcohol consumption weakens the immune system and has a negative effect on patients’ adherence to antiretroviral treatment.

The Global Strategy to Reduce the Harmful Use of Alcohol15 adopted by the World Health Assembly in 2010 is a cornerstone for our response in this area, as is noted in the new global and regional action plans for the prevention and control of NCDs. The WHO Global Information System on Alcohol and Health (GISAH) is part of the Global Health Observatory (GHO) and is an essential tool for assessing and monitoring the health situation and trends related to alcohol consumption, harm and policy responses in countries. ‘Best buy’ interventions to reduce the harmful use of alcohol have been defined by WHO as:

- Excise tax increases on alcoholic beverages.
- Comprehensive restrictions and bans on alcohol marketing.
- Restrictions on the availability of retailed alcohol (Table 1).

ACTIONS TAKEN

A biregional Workshop on Building Capacity for Reducing the Harmful Use of Alcohol at Country Level in Coordination with NCD Prevention and Control was held in Bangkok, Thailand, from 22 to 24 October 2012. It included participants from Cambodia, the Lao People’s Democratic Republic, Mongolia and Viet Nam.

Impact of the actions

We have noted the ‘best buy’ interventions for reducing alcohol harm. Implementation of these ‘best buys’ can have a dramatic impact on public health. For example, we have robust evidence that price increases for alcoholic beverages lead to reduced alcohol consumption, both in the general population and in certain high-risk populations such as heavier drinkers or adolescents and young adults. These effects seem to be more pronounced in the long run than in the short run.
Likewise, price increases can help reduce the risk for adverse consequences of alcohol consumption and abuse, including drinking and driving, alcohol-involved crimes, liver cirrhosis and other alcohol-related mortality, risky sexual behaviour and its consequences and poor school performance among youth. Recent research showing that increases in the density of private liquor stores were associated with increases in alcohol-attributable mortality provides additional support for restrictions on the availability of retailed alcohol. The WHO Global Status Report on NCDs has estimated that the combined effect of implementing ‘best buys’ and ‘good buys’ would be to avert 10% to 20% of the alcohol burden, globally amounting to 5–10m DALYs averted.

**Workshop Outputs**

The four participating countries produced:

- Draft country road maps for alcohol policy development.
- Recommendations for further development of technical tools presented in the workshop.
- A workshop report with recommendations for continued collaboration between the WHO Secretariat and countries in reducing harmful use of alcohol as a risk factor for NCDs.
- Strengthened networking within the region on strategies to reduce the harmful use of alcohol.

The illustration of progress achieved in these four countries with AusAID support represents an important foundation on which to build further. Given the potential impact and cost-effectiveness of interventions, there is great scope for scaling up efforts in light of the required investment.

### Table 1: The Impact and cost-effectiveness of Interventions to reduce harmful use of alcohol (WHO 2010–2011)

<table>
<thead>
<tr>
<th>Risk factor</th>
<th>Interventions/ actions</th>
<th>Avoidable burden</th>
<th>Cost-effectiveness</th>
<th>Implementation cost</th>
<th>Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmful use of alcohol</td>
<td>Restrict access to retailed alcohol*</td>
<td>Combined effect: 5–10 m DALYs averted (10–20% alcohol burden)</td>
<td>Very cost-effective</td>
<td>Very low cost</td>
<td>Highly feasible</td>
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<tr>
<td>(&gt;50m DALYs; 4.5% global burden)</td>
<td>Enforce bans on alcohol advertising*</td>
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<tr>
<td></td>
<td>Raise taxes on alcohol*</td>
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<tr>
<td></td>
<td>Enforce drink-driving laws (breath testing)</td>
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<td></td>
<td>Offer brief advice on hazardous drinking</td>
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Improving healthy diet

Background and actions taken

BACKGROUND

High salt consumption is an important determinant of high blood pressure and cardiovascular risk. Salt intake in a population of less than 5 grams per person per day is recommended by WHO for the prevention of cardiovascular disease.\textsuperscript{17,18} But data from various countries indicate that most populations are consuming much more salt than this.\textsuperscript{3}

High consumption of saturated fats and trans-fatty acids is linked to heart disease while adequate consumption of fruit and vegetables reduces the risk for cardiovascular diseases, stomach cancer and colorectal cancer.\textsuperscript{3} The reduction of sodium intake in the population is a cost-effective public health intervention and is one of the nine global targets selected by Member States for the prevention and control of NCDs.

ACTIONS TAKEN

Technical support for salt reduction was provided to Cambodia, the Lao People’s Democratic Republic and Viet Nam in collaboration with the George Institute for Global Health, Australia.

- **Cambodia**: Support for a survey on salt intake. Technical support and initiation of a salt reduction action plan, programme and advocacy forum.
- **The Lao People’s Democratic Republic**: Initiation of a salt reduction programme, including a study in Vientiane to assess salt intake, sources of salt and consumer knowledge and behaviour.
- **Viet Nam**: Technical support for a salt reduction programme and support to conduct a baseline survey to evaluate the effectiveness of Communication for Behavioral Impact (COMBI) intervention for salt reduction in Phu Tho Province.
- **Pacific Island Countries**: Development of salt reduction strategies through multisectoral salt reduction consultations for Cook Islands, Fiji, the Federated States of Micronesia, the Marshall Islands, Kiribati, Tuvalu, and Vanuatu.

Meeting Report

Regional Consultation on Strategies to Reduce Salt Intake

Singapore
2–3 June 2010

Japan-WHO Regional Consultation for Promoting Healthier Dietary Options for Children

26–29 March 2012
Saitama, Japan
A Knowledge, Attitude and Behaviour (KAB) survey, a Food Frequency Questionnaire (FFQ) survey and a shops survey were conducted in the Cook Islands. Activities conducted in Fiji contributed to the establishment of salt reduction targets and consultations with the food industry. The printing of IEC material and the events during Salt Awareness Week were partly funded. Training to conduct shops surveys was conducted and surveys were initiated in Kiribati, Tuvalu and Vanuatu.

**WHO’s set of recommendations on Marketing of Foods and Nonalcoholic Beverages to Children**

In addition to the salt reduction efforts, initiatives included work to support the implementation of WHO set of recommendations on marketing of foods and non-alcoholic beverages to children. For example, the Philippines and Mongolia were supported in collaboration with the University of Sydney, Australia, to conduct a survey of outdoor advertisements near schools. The two studies have provided useful information that will form the basis of regulations and restrictions to reduce advertisement and marketing of unhealthy foods and nonalcoholic beverages near schools.

The World Health Assembly endorsed recommendations aimed at reducing the impact of marketing of food and nonalcoholic beverages to children. WHO supported the Philippines and Mongolia to undertake surveys of outdoor advertisements near schools.

National workshops in Fiji, Samoa and Tonga were supported to prevent childhood obesity and reduce marketing pressure on children, in which over 20 schools were backed to implement childhood obesity prevention plans and to reduce marketing pressure on children.
Impact of the actions

It is estimated that decreasing dietary salt intake from the current global levels of 9 grams to 12 grams per day to the recommended level of 5 grams per day would have a major impact on reducing blood pressure and cardiovascular disease.\textsuperscript{19} We know what action to take and we have had a very clear demonstration of success in the United Kingdom. The impact of the initiatives in the Region has been to set many countries on the right path.

In the United Kingdom, the Food Standards Agency set salt reduction targets in 2003 for the food industry in 85 categories of food. By 2008, the average population salt intake levels had dropped from 9.5 g/d to 8.6 g/d, about 10%, which is predicted to have prevented about 6000 deaths from stroke and heart attack due to high blood pressure. In 2009, further evidence was published in the \textit{British Medical Journal} supporting the health benefits of salt reduction, showing that reducing salt intake by 5 g/d is associated with a 23% decrease in the rate of stroke and a 17% decrease in the rate of total cardiovascular disease. It is estimated that this reduction could prevent about 1.25 million deaths from stroke and almost 3 million deaths from CVD each year.\textsuperscript{20}

For salt reduction, and in general for prevention and control across NCDs, solid evidence of health gains is usually available after several years of sustained programmatic effort and investment rather than within a year. For many of the countries concerned, this was their first time to pay attention to the issue of salt reduction and public health policy. These are very promising results to build on for future success.

In addressing marketing of foods and nonalcoholic beverages to children, WHO support led to the progression of regulatory measures in several countries. Draft regulations on the marketing of foods and nonalcoholic beverages to children were formulated under the Food Safety Act 2003 in Fiji. Restrictions on the marketing of food and nonalcoholic beverages to children have been included as part of overall draft food regulations in Cook Islands, the Marshall Islands, Kiribati and Vanuatu.

Mongolia and the Philippines have baseline information on the outdoor advertising of foods and nonalcoholic beverages near schools and are working on interventions to reduce harm from marketing of foods and nonalcoholic beverages to children.
Physical inactivity is the fourth leading risk factor for global mortality. Globally, 6% of deaths are attributed to physical inactivity. Physical inactivity is the main cause for about 30% of ischaemic heart disease burden, 27% of diabetes and 21% to 25% of breast and colon cancers. Increasing levels of physical inactivity are seen worldwide, in high-income countries as well as low- and middle-income countries.

Physical activity is also a key determinant of energy expenditure, and thus is fundamental to energy balance and weight control.

WHO has published the Global Recommendations on Physical Activity for Health, providing separate evidence-based recommendations for those between 5 and 17 years old, between 18 and 64 years old and those aged 65 years and over as well as the Global Strategy on Diet, Physical Activity and Health (DPAS).

• All sectors and all levels within governments, international partners, civil society, NGOs and the private sector have vital roles to play in shaping healthy environments and contributing to a systematic approach to the promotion of physical activity.

• Consistent with the NCD ‘best buys’ previously identified, the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 has identified specific actions to advance the implementation of the Global Strategy on Diet, Physical Activity and Health (DPAS).
Actions to advance the implementation of the Global Strategy on Diet, Physical Activity and Health

- Adopt and implement national guidelines on physical activity for health.
- Promote physical activity through activities of daily living, including through active transport as well as through recreation, leisure and sport.
- Consider establishing a multisectoral national committee or coalitions to provide strategic leadership and coordination.
- Create partnerships with agencies outside the health sector and identify and promote the additional benefits of physical activity such as educational achievement, clean air, less congestion, increased functional independence, social and mental health and child and adolescent health and development.
- Increase physical activity through programmatic and policy-level interventions and in multiple settings (e.g., planning and urban design are important sectors to improve the built environment and programmes for healthy workplaces can prevent sedentary work and stimulate physical activity).
- Encourage leadership at multiple levels by different agents, including within professional groups (both within and outside the health sector) in the community and for adolescents and youth and all age groups to promote healthy and active ageing across the life course.
- Implement mass media and social marketing strategies that are cost-effective to raise awareness and provide education and motivation (intention) towards physical activity, linking them to supporting actions for maximum benefit and impact.


ACTIONS TAKEN

Pacific Island Countries
Support was provided to Cook Islands, the Federated States of Micronesia, Kiribati, Nauru, the Marshall Islands, Tuvalu and Vanuatu to draft proposals on Healthy Islands through Sports. This was undertaken in partnership with the SPC and the Australian Sports Commission (ASC). WHO also contributed to a key meeting on this strategic approach.34

Brunei Darussalam
Basing the initiative on the WHO Global Guidelines, Brunei Darussalam was one of the first countries in Asia to produce comprehensive public information on exercise recommendations for children and adults. A symposium for physical education teachers was held to support the implementation of Brunei Darussalam’s National Physical Activity Guidelines. A consultative workshop on increasing physical activity among schoolchildren also was convened.

China
The Happy 10 programme was implemented in selected schools in China. Based on this experience, the programme is being expanded to other schools in three provinces as part of the Western Area Health Initiative in China.

Happy 10 School-based Physical Activity Programme
Happy 10 incorporates 10 minutes of physical activity into third and fourth grade classrooms twice a day. Designed like a card game with bright colours and cartoon characters, each Happy 10 period of activity can be led either by a teacher or child who draws a card from a deck and then guides the class through 10 minutes of activities that are described on the card. The 10-minute period is carefully calculated into 1- or 2-minute increments during which students pick up the card, which determines what the class will do; engage in a timed sequence of light, moderate and moderate-high activity; cool down while learning a health message; and reward themselves with stickers placed on the classroom’s wall.
Impact of the actions

We have noted the WHO-recommended ‘best buy’ interventions for promoting increased physical activity and reduced sedentary behaviour. Implementation of these ‘best buy’ and recommendations can have a dramatic impact on public health.

The United Nations has recognized physical activity as a cornerstone for combating NCDs. WHO recognizes physical inactivity as one of the leading global risk factors for morbidity and premature mortality. Physical inactivity directly affects many risk factors for morbidity and mortality, including adiposity, raised blood glucose concentrations, high blood pressure and a poor lipid profile. Furthermore, people benefit from even modest activity. Compared with inactive individuals, those who were active but at levels less than recommended (about 1 1/2 hours per week), lived three years longer. Physical activity thus has vast potential to improve health throughout the world.

Even modest levels of physical activity make a huge difference

A recent prospective study published in The Lancet shows that, when compared with inactive individuals, those who were active but at levels less than recommended (about 1 1/2 hours per week), lived three years longer. The study examined 416,175 individuals (199,265 men and 216,910 women) who participated in a standard medical screening programme between 1996 and 2008, with an average follow-up of more than eight years.


Seven Pacific island countries were supported to develop proposals for Healthy Islands through Sport.

• The progress achieved with AusAID support across these countries is an important foundation on which to build further.
• Given the scale of the problem of inactivity and sedentary behaviour and the cost of inaction, much more needs to be done in the years ahead.
• Given the potential impact and cost-effectiveness of interventions, we can be optimistic that given the required investment, these efforts can be scaled up.
Background and actions taken

BACKGROUND

Access to medicines and vaccines to prevent and treat NCDs is unacceptably low worldwide. In the 2011 United Nations political declaration on the prevention and control of NCDs, heads of government made several commitments related to access to essential medicines, technologies and vaccines for such diseases. Thirty years of experience with policies for essential medicines and 10 years of scaling up HIV treatment have provided the knowledge needed to address barriers to long-term effective treatment and prevention of NCDs. \(^3\)

“WHO-PEN defines a minimum set of essential NCD interventions for any country that wishes to initiate a process of universal coverage reforms to ensure that health systems contribute to health equity, social justice, community solidarity and human rights.” \(^i\)

WHO-PEN for primary care is a prioritized set of cost-effective interventions that can be delivered for an acceptable quality of care, even in resource-poor settings. WHO-PEN provides a conceptual framework for strengthening equity and efficiency of primary health care and it:

- Identifies core technologies, medicines and risk prediction tools.
- Discusses protocols required for implementation of a set of essential NCD interventions.
- Develops a technical and operational outline for integration of essential NCD interventions in primary care and for evaluation of impact.

ACTIONS TAKEN

Regional

The regional meeting (Beijing, China, in August 2012) on strengthening NCD prevention and control in primary care was attended by 32 participants from 10 countries. The Western Pacific Regional Office provided a technical background paper to support the meeting.

Cambodia

Assessment of the health centre capacity for integration of WHO-PEN was conducted, including identification of gaps in the capacity of health centres. Programme managers were trained in the introduction of WHO-PEN.

China

A WHO-PEN capacity assessment survey was conducted in Chongqing with respect to health facilities. This model will be extended to support other provinces in the Western Area Health Initiative.

**The Philippines**

WHO is supporting the Department of Health in implementing WHO-PEN. A service delivery model based on WHO-PEN was piloted in the municipality of Pateros in Metro Manila and is being scaled up. WHO-PEN is also linked with initiatives from Philippine Health Insurance Corporation (PhilHealth) on implementing NCD-related inpatient and outpatient benefit packages and various Department of Health offices on enhancing access to medicines and improved surveillance for NCDs. It is a priority thrust under “Kalusugang Pangkalahatan” (universal health care) and the Millennium Development Goals Max Initiative of the Department of Health.

**Viet Nam**

Phu Tho Province was supported on WHO-PEN through a refresher course on CVD risk management.

**Pacific Island Countries**

An introductory training course was carried out by Fiji in which support was provided for Solomon Islands, Vanuatu, Tonga, Samoa and Kiribati to also attend. It was conducted by Ministry of Health staff responsible for WHO-PEN and WHO project officers. The technical support was provided by WHO HQ and training was conducted for two days, after which each country worked out plans for implementing the feasibility phase for two to three months. Support was then provided to Fiji and Solomon Islands involving consultancy for support in assessing the feasibility phase and providing design support for a national roll-out plan.

**Impact of the actions**

WHO-PEN is rapidly becoming established as a practical solution to unacceptably low worldwide levels of access to medicines and vaccines to prevent and treat NCDs. Access to medicines is a core component of the right to health; this is especially relevant for long-term treatment of NCDs. International commentators recently have stated that prepayment and risk-sharing through tax-based or obligatory health insurance are the most efficient ways to increase population coverage from domestic sources. Some lower-income countries will need additional international financing to address NCDs.

These commentators also have suggested that further development work on specific indicators and targets are needed to monitor country progress towards access to essential medicines.\(^{37}\) Recent evidence also indicates the possible need for more detailed analysis of barriers to generic availability and affordability for NCD essential medicines in order to ensure equitable access to global populations.\(^{38}\) Governments are being encouraged to ensure access to new, patented and expensive NCD medicines through the full use of the flexibilities of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement.\(^{37}\)

The progress achieved through the actions reported above and achieved with AusAID support is an important foundation on which to build further.
Surveillance and multisectoral planning

Background and actions taken

BACKGROUND

Surveillance
Reliable and timely data may be regarded as mandatory for the planning and evaluation of programmes. But setting up and maintaining surveillance systems can be difficult for low- and middle-income countries. Three essential components of NCD surveillance have been defined and constitute a framework that all countries should establish and strengthen. These components are monitoring exposures (risk factors); monitoring outcomes (morbidity and diseasespecific mortality); and health system responses, which also include a national capacity to prevent NCDs in terms of policies and plans, infrastructure, human resources and access to essential health care, including medicines.

Multisectoral planning and action

Decisions made outside the health sector often have a major bearing on factors that influence NCD-related risk. More prevention gains may be achieved by influencing public policies in domains such as trade, food and pharmaceutical production, agriculture, urban development, pricing, advertising, IEC technology and taxation policies than by changes that are restricted to health policy and health care alone. Action to prevent and control NCDs requires support and collaboration from government, civil society and the private sector. Therefore, multiple sectors must be brought together for successful action against the NCD epidemic. In this respect, policy-makers must follow successful approaches to engage nonhealth sectors based on international experience and lessons learnt. Guidelines on promoting intersectoral action have been provided by WHO in Chapter 7 and Annex 6 of the Global Status Report on Noncommunicable Diseases.
GLOBAL MONITORING FRAMEWORK, INCLUDING INDICATORS, AND A SET OF VOLUNTARY GLOBAL TARGETS

A comprehensive Global Monitoring Framework, including indicators (Figure 1) and a Set of Voluntary Global Targets for the Prevention and Control of NCDs, has been drawn up (Table 2).

The Western Pacific Regional Office has worked out a regional NCD profile to serve as a baseline for moving towards the voluntary global targets.  

Figure 1: Comprehensive Global Monitoring Framework for Noncommunicable Diseases

Table 2: A set of voluntary global targets for the prevention and control of noncommunicable diseases

<table>
<thead>
<tr>
<th>Mortality and morbidity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A 25% relative reduction in overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases</td>
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</table>

<table>
<thead>
<tr>
<th>Risk factors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{Behavioural risk factors}</td>
<td></td>
</tr>
</tbody>
</table>

| HARMFUL USE OF ALCOHOL\textsuperscript{iii} |  |
| 2. At least a 10% relative reduction in the harmful use of alcohol,\textsuperscript{iv} as appropriate, within the national context |  |

| PHYSICAL INACTIVITY |  |
| 3. A 10% relative reduction in prevalence of insufficient physical activity |  |

| SALT |  |
| 4. A 30% relative reduction in mean population intake of salt/sodium intake\textsuperscript{v} |  |

| TOBACCO USE |  |
| 5. A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years |  |

| Biological risk factors |  |

| RAISED BLOOD PRESSURE |  |
| 6. A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure according to national circumstances |  |

| DIABETES AND OBESITY\textsuperscript{vi} |  |
| 7. Halt the rise in diabetes and obesity |  |

| National systems response |  |
| DRUG THERAPY TO PREVENT HEART ATTACKS AND STROKES |  |
| 8. At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes |  |

| ESSENTIAL MEDICINES AND BASIC TECHNOLOGIES TO TREAT MAJOR NONCOMMUNICABLE DISEASES |  |
| 9. An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major NCD in both public and private facilities |  |

\textsuperscript{i} http://www.who.int/nmh/global_monitoring_framework/en/
\textsuperscript{ii} http://apps.who.int/gb/NCDs/pdf/A_NCD_2-en.pdf
\textsuperscript{iii} Countries will select indicator(s) of harmful use as appropriate to their national context and in line with WHO’s global strategy to reduce the harmful use of alcohol, and that may include prevalence of heavy episodic drinking, total alcohol per capita consumption and alcohol-related morbidity and mortality, among others.
\textsuperscript{iv} WHO’s global strategy to reduce the harmful use of alcohol encompasses the drinking that causes detrimental health and social consequences for the drinker, the people around the drinker and society at large and the patterns of drinking that are associated with increased risk of adverse health outcomes.
\textsuperscript{v} WHO’s recommendation is less than 5 grams of salt or 2 grams of sodium per person per day.
\textsuperscript{vi} Countries will select indicator(s) appropriate to their national context.
The main tools available for assessing population levels of risk factors are:

• WHO STEPwise approach to chronic disease risk factor surveillance (STEPS).¹
• Global School-based Student Health Survey (GSHS) developed by WHO and the CDC to permit access to data on exposures, behaviours and protective factors among schoolchildren.

Surveillance for NCD risk factors has been advanced in selected countries of the Region and technical support for multisectoral planning has been provided through the support of AusAID funds.

### WHO STEPwise Surveillance of NCD risk factors (STEPS)

- Various Pacific island countries were supported at different stages of planning, implementation, data analysis and reporting in their approaches to risk factor surveillance:
  - Tonga, Niue and Vanuatu published their baseline STEPS reports.
  - Tonga, Fiji and Samoa planned or made progress in their respective repeat STEPS survey.
  - Cook Islands planned to repeat its STEPS survey and was supported to progress with the planning.

- A total of 14 experts from the Region received technical training to support surveillance in regional countries.

- Based on the WHO/ISH risk charts,² a new code was written so that tables describing the absolute risk of a fatal or nonfatal CVD event can be added to STEPs reports.

- The Lao People’s Democratic Republic was supported in preparing for the first national NCD risk factor survey using WHO STEPS tools.

### Global School-based Student Health Survey (GSHS)

- Technical training in conducting GSHS³ was provided to:
  - Cambodia
  - The Lao People’s Democratic Republic
  - Viet Nam

- GSHS fieldwork in Viet Nam and Cambodia was supported.

### Multisectoral planning for NCD prevention and control

- Technical support for multisectoral planning was provided to:
  - Viet Nam, where a workshop was used to develop a national multisectoral strategy for NCD prevention and control.
  - The Lao People’s Democratic Republic, to draft a national NCD multisectoral plan.
  - Cambodia, to draft a national NCD multisectoral plan.

- A regional meeting on National Multisectoral Plans for NCD Prevention and Control was convened in Malaysia in June 2012 and included a special background paper⁴ highlighting regional examples of multisectoral action at national and subnational levels and for specific NCD risk factors.

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³ The Global School Health Policy and Practices Survey (SHPPS) to monitor school policies were also included in the technical training.

⁴ Multisectoral Action to address Noncommunicable Disease in the Western Pacific Region: Learnings and Opportunities. Background Paper. 25 May 2012.
Multisectoral planning and the resulting action is required to create enabling environments in homes, villages and cities so that healthy choices are easy choices. As noted, progress has been made in multisectoral planning and action, but continuing action is required in domains such as trade, food and pharmaceutical production, agriculture, urban development, pricing, advertising, IEC technology and taxation policies.10

Impact of the actions

The Western Pacific Regional Office has produced a regional NCD profile which provides baselines for moving towards the voluntary global targets.39 Country-specific data are classified by income category to reflect the variations among countries in the Region and to serve as a baseline for further monitoring. Disease registries are not widely available in the Region, making it difficult to assess morbidity. Nonetheless, it is possible to provide national-level data on the cancer burden and these data are presented in terms of incidence and mortality. Variations in the rate of breast and uterine cervical cancer in women also are highlighted. Diabetes prevalence is more than 10% in almost all of the Pacific island countries.

Wide variation in tobacco prevalence in the Region indicates that there is potential to reduce tobacco use in many countries. Alcohol consumption also shows a wide variation.79

Raised blood pressure and blood cholesterol levels are uniformly high in the Region. Obesity and lack of physical activity are serious issues in most countries and indicate a need for the promotion of healthy diets and physical activity through multisectoral action.

The regional NCD profile and the emerging strength of country-level surveillance are assets in the fight against the NCD epidemic. But the profile also diagnoses the need for our efforts to be redoubled and our systems to be further developed. For example:

- **Cause-specific mortality data**, with International Classification of Diseases (ICD) coding, are required for monitoring NCD mortality and serve as unbiased indicators of the effectiveness of the overall NCD prevention and control programme.

- **Mortality registration and certification** needs to be strengthened, especially in LMICs, as it is important for implementing and monitoring NCD programmes as well as for assessing other health programmes. Challenges remain in establishing population-based disease registries in LMICs. Hospital-based registries offer an entry point before coverage of a defined catchment population. This is very important in areas such as cancer screening services.

- **NCD risk factor surveillance** such as the WHO STEPS approach also needs to be strengthened. Trends in NCD risk factors serve as indicators of the effectiveness of risk reduction programmes. Periodic collection of comparable data is essential for measuring trends among and within countries. WHO STEPS offers a standardized approach that can be adopted by countries.
The way forward: blue chip investments

NCDs are preventable and cost-effective solutions are available now

The burden of NCDs will reach levels that are beyond the capacity of all stakeholders to manage unless serious action is maintained. Cost-effective measures exist to prevent and control NCDs. The key actions include both population-wide interventions such as tobacco control and targeted treatment for individuals at high risk. The actions focus especially on four behavioural risk factors: use of tobacco, unhealthy diets, lack of physical exercise and harmful use of alcohol, and on four underlying metabolic or physiological factors that are measurable: excess body weight, high levels of serum cholesterol, high fasting plasma glucose levels and high systolic blood pressure.

Evidence shows that to be effective, responses must be multisectoral, integrating health promotion, prevention and treatment strategies and involving the community and the health sector. WHO has identified ‘best buys’ in NCD prevention and control. There is evidence and consensus on the most impactful and cost-effective actions that should be undertaken immediately to produce accelerated results in terms of lives saved, diseases prevented and major costs avoided.

We use the term “blue chip” here to denote ‘best buys’, the options with the highest likelihood of providing the best returns on investment in NCD prevention and control.

‘Best buys’ for NCD prevention and control have been identified

While many interventions may be cost-effective, some are considered ‘best buys’, which are actions that should be taken immediately to produce accelerated results in terms of lives saved, diseases prevented and major costs avoided. A ‘best buy’ is an intervention that is not only highly cost-effective but also cheap, feasible and culturally acceptable to implement.

Table 3 (which shows population-wide interventions) and Table 4 (which shows individually-focused health care interventions) provide a set of actions that can be implemented as per national context to reduce NCDs and their impact.

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A highly cost-effective intervention is one that, on average, provides an extra year of healthy life (equivalent to averted one DALY) for less than the average annual income per person. These threshold values are based on recommendations by the WHO Commission on Macroeconomics and Health (2001) and the work of the WHO cost-effectiveness CHOICE project and are detailed in the WHO Global Status Report on NCD.

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Table 3: Population-wide interventions to tackle NCD risk factors: identifying ‘best buys’

<table>
<thead>
<tr>
<th>Risk factor</th>
<th>Interventions / actions</th>
<th>Avoidable burden</th>
<th>Cost-effectiveness</th>
<th>Implementation cost</th>
<th>Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tobacco use</strong></td>
<td></td>
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<tr>
<td>(&gt; 50m DALYs; 3.7% global burden)</td>
<td>Protect people from tobacco smoke* &lt;br&gt; Warn about the dangers of tobacco* &lt;br&gt; Enforce bans on tobacco advertising* &lt;br&gt; Raise taxes on tobacco* &lt;br&gt; Offer counselling to smokers</td>
<td>Combined effect: 25–30 million DALYs averted (&gt; 50% tobacco burden)</td>
<td>Very cost-effective</td>
<td>Very low cost &lt;br&gt; Highly feasible; strong framework (FCTC)</td>
<td></td>
</tr>
<tr>
<td><strong>Harmful use of alcohol</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(&gt; 50m DALYs; 4.5% global burden)</td>
<td>Restrict access to retailed alcohol* &lt;br&gt; Enforce bans on alcohol advertising * &lt;br&gt; Raise taxes on alcohol * &lt;br&gt; Enforce drink-driving laws (breath-testing) &lt;br&gt; Offer brief advice for hazardous drinking</td>
<td>Combined effect: 5–10 million DALYs averted (10–20% alcohol burden)</td>
<td>Very cost-effective</td>
<td>Very low cost &lt;br&gt; Highly feasible</td>
<td></td>
</tr>
<tr>
<td><strong>Unhealthy diet</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(15-30m DALYs; 1-2% global burden)</td>
<td>Reduce salt intake* &lt;br&gt; Replace trans-fat with polyunsaturated fat* &lt;br&gt; Promote public awareness about diet** &lt;br&gt; Restrict marketing of food and beverages to children &lt;br&gt; Replace saturated fat with unsaturated fat &lt;br&gt; Manage food taxes and subsidies &lt;br&gt; Offer counselling in primary care &lt;br&gt; Provide health education in worksites &lt;br&gt; Promote healthy eating in schools</td>
<td>Effect of salt reduction: 5 million DALYs averted &lt;br&gt; Other interventions: Not yet assessed globally</td>
<td>Very cost-effective</td>
<td>Very low cost &lt;br&gt; Highly feasible</td>
<td></td>
</tr>
<tr>
<td><strong>Physical inactivity</strong></td>
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<tr>
<td>(&gt; 30m DALYs; 2.1% global burden)</td>
<td>Promote physical activity (mass media)* &lt;br&gt; Promote physical activity (communities) &lt;br&gt; Support active transport strategies &lt;br&gt; Offer counselling in primary care &lt;br&gt; Promote physical activity in worksites &lt;br&gt; Promote physical activity in schools</td>
<td>Not yet assessed globally</td>
<td>Very cost-effective</td>
<td>Very low cost &lt;br&gt; Highly feasible</td>
<td></td>
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<tr>
<td><strong>Infection</strong></td>
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<tr>
<td></td>
<td>Prevent liver cancer via hepatitis B vaccination*</td>
<td>Not yet assessed globally</td>
<td>Very cost-effective</td>
<td>Very low cost &lt;br&gt; Feasible (primary care)</td>
<td></td>
</tr>
</tbody>
</table>

* DALYs (or disability-adjusted life years) are widely used as a measure of premature mortality and ill-health - one DALY can be thought of as one lost year of healthy life.

b Main data sources for globally applicable cost-effectiveness estimates are the Disease Control Priorities project (www.DCP2.org) and the WHO-CHOICE project (www.who.int/choice)

c This estimate is based on the combined burden of low fruit and vegetable intake, high cholesterol, overweight and obesity, high blood glucose, high blood pressure - all diet related - and low physical activity. (m=millions)

d Considered a ‘best buy’ when the two interventions are implemented together.

Table 4: Individually-focused health care interventions to tackle NCDs: identifying ‘best buys’

<table>
<thead>
<tr>
<th>Disease</th>
<th>Interventions / actions</th>
<th>Avoidable burden (DALYs averted, millions)</th>
<th>Cost–effectiveness(b)</th>
<th>Implementation cost (US$ per capita)</th>
<th>Feasibility (health system constraints)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiovascular disease (CVD) and diabetes</strong></td>
<td><strong>Counselling and multidrug therapy (including glycaemic control for diabetes mellitus for people (≥ 30 years), with 10-year risk of fatal or nonfatal cardiovascular events ≥ 30%(^c)</strong> * Aspirin therapy for acute myocardial infarction*</td>
<td>60 m DALYs averted (35% CVD burden)</td>
<td>Very cost-effective</td>
<td>Quite low cost</td>
<td>Feasible (primary care)</td>
</tr>
<tr>
<td></td>
<td><strong>Counselling and multidrug therapy (including glycaemic control for diabetes mellitus) for people (≥ 30 years), with a 10-year risk of fatal and nonfatal cardiovascular events ≥ 20%</strong></td>
<td>4 m DALYs averted (2% CVD burden)</td>
<td>Very cost-effective</td>
<td>Quite low cost</td>
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<tr>
<td></td>
<td></td>
<td>70 m DALYs averted (40% CVD burden)</td>
<td>Quite cost-effective</td>
<td>Higher cost</td>
<td></td>
</tr>
<tr>
<td><strong>Cancer</strong></td>
<td><strong>Cervical cancer screening (VIA), and treatment of pre-cancerous lesions to prevent cervical cancer</strong>*</td>
<td>5 m DALYs averted (6% cancer burden)</td>
<td>Very cost-effective</td>
<td>Very low cost</td>
<td>Feasible (primary care)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 m DALYs averted (4% cancer burden)</td>
<td>Quite cost-effective</td>
<td>Higher cost</td>
<td>Not feasible in primary care</td>
</tr>
<tr>
<td></td>
<td><strong>Breast cancer – treatment of stage I</strong></td>
<td>15 m DALYs averted (19% cancer burden)</td>
<td>Quite cost-effective</td>
<td>Higher cost</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Breast cancer – early case-finding through biennial mammographic screening (50–70 years) and treatment of all stages</strong></td>
<td>7 m DALYs averted (9% cancer burden)</td>
<td>Quite cost-effective</td>
<td>Quite low cost</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Colorectal cancer-screening at age 50 and treatment</strong></td>
<td></td>
<td>Not assessed globally</td>
<td>Not assessed</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Oral cancer – early detection and treatment</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Respiratory disease</strong></td>
<td><strong>Treatment of persistent asthma with inhaled corticosteroids and beta-2 agonists</strong></td>
<td>Not established globally (expected to be small)</td>
<td>Quite cost-effective</td>
<td>Very low cost</td>
<td>Feasible (primary care)</td>
</tr>
</tbody>
</table>

\(^a\) DALYs (or disability-adjusted life years) are widely used as a measure of premature mortality and ill-health - one DALY can be thought of as one lost year of healthy life.  


\(^c\) Includes prevention of recurrent vascular events in people with established coronary heart disease and cerebrovascular disease.

Evidence for action, already compelling, grows stronger by the day

There is a notable increase in focus on NCDs in the recent scientific literature that gives further impetus to a compelling evidence base for action. For example, The Lancet has published four series of papers on NCDs in 2005, 2007, 2010 and 2013. We are accumulating more case studies and examples of successful implementation of ‘best buys’ such as those recently produced for physical activity, salt reduction, cervical cancer prevention and the role of leadership in tackling NCDs. Important new studies will continue to strengthen and refine our evidence-informed approach to policy and action.

NCD prevention and control actions are blue chip investments

The benefits from tackling the burden of NCDs are clear, not just from the public health perspective but also from the economic one. The social burdens associated with NCDs include prolonged disability, diminished resources within families and reduced productivity, in addition to tremendous demands on health systems. Over the next 20 years, NCDs will cost more than US$ 30 trillion, representing 48% of global gross domestic product (GDP) in 2010, and pushing millions of people below the poverty line.

Under a business-as-usual scenario in which intervention efforts remain static and rates of NCDs continue to increase as populations grow and age, cumulative economic losses to LMICs from the four diseases are estimated to surpass US$ 7 trillion during the period 2011–2025 (an average of nearly US$ 500 billion per year). This yearly loss is equivalent to about 4% of these countries’ current annual output. On a per person basis, the annual losses amount to an average of US$ 25 in low-income countries, US$ 50 in lower middle-income countries and US$ 139 in upper middle-income countries. The cost attributable to CVD alone in the Western Pacific for the year 2010 was US$ 107.1 billion, of which the productivity cost component was US$ 50.8 billion.

By contrast, the cost of investment required for scaled-up implementation of a core set of NCD ‘best buy’ intervention strategies is comparatively low. Population-based measures for reducing tobacco and harmful alcohol use, as well as unhealthy diet and physical inactivity, are estimated to cost US$ 2 billion per year for all LMICs, less than US$ 0.40 per person. Individual-based NCD ‘best buy’ interventions, which range from counselling and drug therapy for CVD to measures to prevent cervical cancer, bring the total annual cost to US$ 11.4 billion.

On a per person basis, the annual investment ranges from under US$ 1 in low-income countries to US$ 3 in upper middle-income countries. In health terms, the return on this investment will be many millions of avoided premature deaths. In economic terms, the return will be many billions of dollars of additional output. For example, reducing the mortality rate for ischaemic heart disease and stroke by 10% would reduce economic losses in LMICs by an estimated US$ 25 billion per year, which is three times greater than the investment needed for the measures to achieve these benefits.

We have clear priorities for action and investment

A unified front is needed to turn the tide on NCDs. Governments, but also civil society and the private sector, must commit to the highest level of engagement in combatting these diseases and their rising economic burden. We have learnt important lessons from reviews of evidence and our past actions that can guide our future decisions.

For example, the WHO global status report on NCDs emphasized the importance of a comprehensive approach, multisectoral action, surveillance and monitoring as well as health system reform to strengthen NCD management and prevention. We also have a systematic and planned approach, with clear priorities for action, as set out in the newly developed WHO Global and Regional Action Plans for the Prevention and Control of Noncommunicable Diseases.
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Actions that make a difference

Prevention and Control of NCDs in the Western Pacific Region