'BEST BUYS' AND OTHER RECOMMENDED INTERVENTIONS FOR THE PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES

UPDATED (2017) APPENDIX 3 OF THE GLOBAL ACTION PLAN
FOR THE PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES 2013-2020

WHAT IS IN THIS DOCUMENT?

This document provides policymakers with a list of 'best buys' and other recommended interventions to address noncommunicable diseases (NCDs) based on an update of Appendix 3 of the Global Action Plan for the Prevention and Control of NCDs 2013–2020. A list of options is presented for each of the four key risk factors for NCDs (tobacco, harmful use of alcohol, unhealthy diet and physical inactivity) and for four disease areas (cardiovascular disease, diabetes, cancer and chronic respiratory disease).

Mortality and morbidity from NCDs constitutes one of the major challenges for development in the 21st century. More than 36 million people die annually as a result of NCDs, including 15 million people who die too young – between the ages of 30 and 70. The burden continues to rise disproportionately in low- and lower middle-income countries while in all countries, these deaths disproportionally affect the poorest and most vulnerable. The majority of premature NCD deaths in this 30–70 age group are the result of the four main noncommunicable diseases: cardiovascular disease, cancer, diabetes and chronic respiratory disease.

In May 2013 the World Health Assembly endorsed WHO's Global Action Plan for the Prevention and Control of NCDs 2013–2020. The global action plan has six objectives whose implementation at country level will support the attainment of the nine NCD targets by 2025, as well as facilitate the realisation of Sustainable Development Goal 3 – Good Health and Well-being. Part of this plan comprises a menu of policy options and cost-effective and recommended interventions ("Appendix 3") to assist Member States, as appropriate for their national context, in implementing measures towards achieving the Sustainable Development Goals (SDG) Target 3.4.

'BEST BUYS' AND OTHER RECOMMENDED INTERVENTIONS

Since the global action plan was endorsed in 2013, Appendix 3 has been updated to take into consideration the emergence of new evidence of cost-effectiveness and the issuance of new WHO recommendations that show evidence of effective interventions. The updated Appendix 3[1] (which reflects changes to objectives 3 and 4 only) was endorsed in May 2017 by the Seventieth World Health Assembly.

Renamed *'Best buys' and other recommended interventions*, this updated Appendix 3 comprises a total of 88 interventions, including overarching/ enabling policy actions, the most cost effective interventions, and other recommended interventions. These 88 interventions are presented in tables, with one table showing the relevant options for each of the four key risk factors and four NCDs addressed.

[1] Officially called "the updated Appendix 3 of the WHO Global NCD Action Plan 2013-2020. http://apps.who.int/gb/ebwha/pdf_files/WHA70/A70_R11-en.pdf

HOW WERE THESE INTERVENTIONS SELECTED?

Interventions in Appendix 3 were updated taking into consideration the emergence of new evidence of cost-effectiveness or new WHO recommendations since the adoption of the Global Action Plan in 2013. The formulation of some of the interventions was also refined based on lessons learnt from the use of the first version of Appendix 3.

A transparent, unified approach for the identifications was taken after the first consultation on updating Appendix 3, 2015 [1]. From the consultation, the following effectiveness criteria were used for identifying interventions:

- An intervention must have a demonstrated and quantifiable effect size, from at least one published study in a peer reviewed journal
- An intervention must have a clear link to one of the global NCD targets

Using the above criteria, additional interventions were considered. The intervention list for the updated Appendix 3 comprises interventions which have been unchanged from the original version, interventions which have been re-worded or revised to reflect updates in WHO policy or scientific evidence and new interventions.

Interventions were assessed for cost effectiveness, feasibility, as well as non-financial considerations. Interventions which were assessed for cost-effectiveness by the WHO's Choosing interventions WHO CHOICE model are listed for each of the risk factors and disease areas.

As mentioned, the 16 interventions considered to be the most cost-effective and feasible for implementation were those with an average cost-effectiveness ratio of ≤ I$ 100/DALY [2] averted in low and lower middle-income countries. Interventions with an average cost-effectiveness > I$ 100 are listed next and may be considered as per the country context. Interventions that are mentioned in WHO's guidelines and technical documents where WHO-CHOICE analysis could not be conducted are also listed in the tables under 'WHO-CHOICE analysis not available'. Care needs to be taken when interpreting these lists; for example, the absence of WHO-CHOICE analysis does not necessarily mean that an intervention is not cost-effective, affordable or feasible – rather, there were methodological or capacity reasons for which the WHO-CHOICE analysis could not be completed at the current time. For more information on the methodology please see the technical annex.[2]

THE IMPORTANCE OF NON-FINANCIAL CONSIDERATIONS

Cost-effectiveness analysis is a useful tool but it has limitations and should not be used as the sole basis for decision-making. When selecting interventions for the prevention and control of noncommunicable diseases, consideration should be given to effectiveness, cost-effectiveness, affordability, implementation capacity, feasibility, according to national circumstances, and impact on health equity of interventions, and to the need to implement a combination of population-wide policy interventions and individual interventions.

Critical non-financial considerations that may affect the feasibility of certain interventions in some settings are shown as a footnote to each relevant intervention.

[1] http://www.who.int/ncds/governance/appendix3-update-discussion-paper/en/

[2] The International dollar is a hypothetical unit of currency that has the same purchasing power parity that the U.S. dollar had in the United States at a given point in time.

HOW COUNTRIES CAN USE THIS INFORMATION

Countries can select from the list of best buys and other recommended interventions, based on their national context. Consideration for selection of interventions could include (i) which interventions will bring the highest return on investment in national responses to the overall implementation of the 2030 Agenda for Sustainable Development; (ii) priority government sectors that need to be engaged (in particular health, trade, commerce and finance) and (iii) concrete coordinated sectoral commitments based on co-benefits for inclusion in national SDG responses.

The economic analyses in the technical annex, upon which this list is based, give an assessment of cost-effectiveness ratios, health impact and the economic cost of implementation. These economic results present a set of parameters for consideration by Member States, but such global analyses can be accompanied by analyses in the local context. Other tools, such as the One Health Tools are available to help individual countries cost specific interventions in their national context.

When considering interventions for the prevention and control of noncommunicable diseases, emphasis should be given to both economic and non-economic criteria, as both will affect the implementation and impact of interventions. Non-economic implementation considerations such as health impact, acceptability, sustainability, scalability, equity, ethics, multisectoral actions, training needs, suitability of existing facilities and monitoring are essential elements in preparing to achieve the targets of the global action plan and should be considered before the decision to implement the items shown in these tables.

The WHO Secretariat will explore options to provide an interactive web-tool, to enable users to compare and rank the information according to their own needs. The detailed description of the WHO-CHOICE[1] methods for these analyses, including the assumptions, strength of evidence and the individual studies used to inform the development of models for each intervention, will be published separately as peer-reviewed scientific papers, which will be publicly available through open access.

[1] http://www.who.int/choice/cost-effectiveness/en

GUIDE TO INTERPRETING THE TABLES

- Overarching/enabling policy interventions are shown by the **light green** marker.
- Out of the 88 interventions, there are a total of 16 'best buys' – those considered the most cost-effective and feasible for implementation. These are interventions where a WHO Choice analysis found an average cost-effectiveness ratio of ≤100 I$[1] per DALY averted in low- and lower middle-income countries. They are shown by the dark green marker in the table.
- Other effective interventions for which the WHO Choice analysis produced a cost effectiveness of above this threshold of I$ ≤100 per DALY averted are shown by the **jungle green** marker.
- Other recommended interventions that have been shown to be effective but for which no cost-effectiveness analysis was conducted are shown by the **warm green** marker.

	Overarching/enabling policy interventions.
	'Best buys': Effective interventions with cost effectiveness analysis ≤ I$ 100 per DALY averted in LMICs.
	Effective interventions with cost effectiveness analysis >I$ 100 per DALY averted in LMICs.
	'Other recommended interventions from WHO guidance (cost effective analysis not available).

[1] The International dollar is a hypothetical unit of currency that has the same purchasing power parity that the U.S. dollar had in the United States at a given point in time.

TOBACCO USE

OVERARCHING/ENABLING ACTIONS

→ FOR THE PARTIES TO THE WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL (WHO FCTC):

- Strengthen the effective implementation of the WHO FCTC and its protocols
- Establish and operationalize national mechanisms for coordination of the WHO FCTC implementation as part of national strategy with specific mandate, responsibilities and resources

→ FOR THE MEMBER STATES THAT ARE NOT PARTIES TO THE WHO FCTC:

- Consider implementing the measures set out in the WHO FCTC and its protocols, as the foundational instrument in global tobacco control

BEST-BUYS AND OTHER RECOMMENDED INTERVENTIONS:

'Best buys': Effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in LMICs	• **Increase excise taxes and prices on tobacco products** • **Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages[1]** • **Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship[1]** • **Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places, public transport[1]** • **Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second hand smoke[1]**
Effective interventions with CEA >I$100 per DALY averted in LMICs	• Provide cost-covered, effective and population-wide support (including brief advice, national toll-free quit line services) for tobacco cessation to all those who want to quit[2]
Other recommended interventions from WHO guidance (CEA not available)	• Implement measures to minimize illicit trade in tobacco products • Ban cross-border advertising, including using modern means of communication • Provide cessation for tobacco cessation to all those who want to quit

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

Non financial considerations

[1] Requires capacity for implementing and enforcing regulation and legislation

[2] Requires sufficient trained providers and a better functioning health system

HARMFUL USE OF ALCOHOL

OVERARCHING/ENABLING ACTIONS

- Implement the WHO global strategy to reduce harmful use of alcohol through multisectoral actions in the recommended target areas
- Strengthen leadership and increase commitment and capacity to address the harmful use of alcohol
- Increase awareness and strengthen the knowledge base on the magnitude and nature of problems caused by harmful use of alcohol by awareness programmes, operational research, improved monitoring and surveillance systems

BEST-BUYS AND OTHER RECOMMENDED INTERVENTIONS:

'Best buys' : Effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in LMICs	• **Increase excise taxes on alcoholic beverages**[1] • **Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)**[2] • **Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale)**[2,3]
Effective interventions with CEA >I$100 per DALY averted in LMICs	• Enact and enforce drink-driving laws and blood alcohol concentration limits via sobriety checkpoints[4] • Provide brief psychosocial intervention for persons with hazardous and harmful alcohol use[5]
Other recommended interventions from WHO guidance (CEA not available)	• Carry out regular reviews of prices in relation to level of inflation and income • Establish minimum prices for alcohol where applicable • Enact and enforce an appropriate minimum age for purchase or consumption of alcoholic beverages and reduce density of retail outlets • Restrict or ban promotions of alcoholic beverages in connection with sponsorships and activities targeting young people • Provide prevention, treatment and care for alcohol use disorders and comorbid conditions in health and social services • Provide consumer information about, and label, alcoholic beverages to indicate, the harm related to alcohol

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

Non financial considerations

1 Requires an effective system for tax administration and should be combined with efforts to prevent tax avoidance and tax evasion

2 Requires capacity for implementing and enforcing regulations and legislation

3 Formal controls on sale need to be complemented by actions addressing illicit or informally produced alcohol

4 Requires allocation of sufficient human resources and equipment

5 Requires trained providers at all levels of health care

UNHEALTHY DIET

OVERARCHING/ENABLING ACTIONS

- Implement the global strategy on diet, physical activity and health
- Implement the WHO recommendations on the marketing of foods and non-alcoholic beverages to children

BEST-BUYS AND OTHER RECOMMENDED INTERVENTIONS:

'Best buys' : Effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in L MICs	• **Reduce salt intake through the reformulation of food products to contain less salt and the setting of target levels for the amouAnt of salt in foods and meals[1]** • **Reduce salt intake through the establishment of a supportive environment in public institutions such as hospitals, schools, workplaces and nursing homes, to enable lower sodium options to be provided[1]** • **Reduce salt intake through a behaviour change communication and mass media campaign** • **Reduce salt intake through the implementation of front-of-pack labelling[2]**
Effective interventions with CEA >I$100 per DALY averted in L MICs	• Eliminate industrial trans-fats through the development of legislation to ban their use in the food chain[2] • Reduce sugar consumption through effective taxation on sugar-sweetened beverages
Other recommended interventions from WHO guidance (CEA not available)	• Promote and support exclusive breastfeeding for the first 6 months of life, including promotion of breastfeeding • Implement subsidies to increase the intake of fruits and vegetables • Replace trans-fats and saturated fats with unsaturated fats through reformulation, labelling, fiscal policies or agricultural policies • Limiting portion and package size to reduce energy intake and the risk of overweight/obesity • Implement nutrition education and counselling in different settings (for example, in preschools, schools, workplaces and hospitals) to increase the intake of fruits and vegetables • Implement nutrition labelling to reduce total energy intake (kcal), sugars, sodium and fats • Implement mass media campaign on healthy diets, including social marketing to reduce the intake of total fat, saturated fats, sugars and salt, and promote the intake of fruits and vegetables

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int

Non financial considerations

[1] Requires multisectoral actions with relevant ministries and support by civil society

[2] Regulatory capacity along with multisectoral action is needed

PHYSICAL INACTIVITY

OVERARCHING/ENABLING ACTIONS

- Implement the global strategy on diet, physical activity and health

BEST-BUYS AND OTHER RECOMMENDED INTERVENTIONS:

'Best buys' : Effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in LMICs	• **Implement community wide public education and awareness campaign for physical activity which includes a mass media campaign combined with other community based education, motivational and environmental programs aimed at supporting behavioural change of physical activity levels ***
Effective interventions with CEA >I$100 per DALY averted in LMICs	• Provide physical activity counselling and referral as part of routine primary health care services through the use of a brief intervention[1]
Other recommended interventions from WHO guidance (CEA not available)	• Ensure that macro-level urban design incorporates the core elements of residential density, connected street networks that include sidewalks, easy access to a diversity of destinations and access to public transport[2] • Implement whole-of-school programme that includes quality physical education, availability of adequate facilities and programs to support physical activity for all children • Provide convenient and safe access to quality public open space and adequate infrastructure to support walking and cycling • Implement multi-component workplace physical activity programmes • Promotion of physical activity through organized sport groups and clubs, programmes and events

* The wording has been updated from document A70/27 to fully align with the technical briefing entitled "Physical inactivity interventions for the Appendix 3 of the WHO Global NCD Action Plan" which was made available to Member States on 24 April 2017 as part of WHO's effort to provide additional technical briefings on the evidence underlying the best buys and other recommended interventions (see http://www.who.int/ncds/governance/appendix3-update/en/).

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

Non financial considerations

[1] Requires sufficient, trained capacity in primary care

[2] Requires involvement and capacity of other sectors apart from health

Objective 4: Strengthen and orient health systems to address the prevention and control of noncommunicable diseases and the underlying social determinants through people-centred primary health care and universal health coverage

OVERARCHING/ENABLING ACTIONS

- Integrate very cost-effective noncommunicable disease interventions into the basic primary health care package with referral systems to all levels of care to advance the universal health coverage agenda
- Explore viable health financing mechanisms and innovative economic tools supported by evidence
- Scale up early detection and coverage, prioritizing very cost-effective high-impact interventions including cost-effective interventions to address behavioural risk factors
- Train the health workforce and strengthen the capacity of health systems, particularly at the primary care level, to address the prevention and control of noncommunicable diseases
- Improve the availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases, in both public and private facilities
- Implement other cost-effective interventions and policy options in objective 4 to strengthen and orient health systems to address noncommunicable diseases and risk factors through people-centred health care and universal health coverage
- Develop and implement a palliative care policy, including access to opioids analgesics for pain relief, together with training for health workers
- Expand the use of digital technologies to increase health service access and efficacy for NCD prevention, and to reduce the costs in health care delivery

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

CARDIOVASCULAR DISEASE AND DIABETES

BEST-BUYS AND OTHER RECOMMENDED INTERVENTIONS:

'Best buys' : Effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in LMICs	• **Drug therapy (including glycaemic control for diabetes mellitus and control of hypertension using a total risk* approach) and counselling to individuals who have had a heart attack or stroke and to persons with high risk (≥ 30%) of a fatal and non-fatal cardiovascular event in the next 10 years[1]** → **Drug therapy (including glycaemic control for diabetes mellitus and control of hypertension using a total risk approach) and counselling to individuals who have had a heart attack or stroke and to persons with moderate to high risk (≥ 20%) of a fatal and non-fatal cardiovascular event in the next 10 years[2]**
Effective interventions with CEA >I$100 per DALY averted in LMICs	• Treatment of new cases of acute myocardial infarction** with either: acetylsalicylic acid, or acetylsalicylic acid and clopidogrel, or thrombolysis, or primary percutaneous coronary interventions (PCI)[3] → Treatment new cases of acute myocardial infarction with aspirin, initially treated in a hospital setting with follow up carried out through primary health care facilities at a 95% coverage rate → Treatment of new cases of acute myocardial infarction with aspirin and thrombolysis, initially treated in a hospital setting with follow up carried out through primary health care facilities at a 95% coverage rate → Treatment of new cases of myocardial infarction with primary percutaneous coronary interventions (PCI), aspirin and clopidogrel, initially treated in a hospital setting with follow up carried out through primary health care facilities at a 95% coverage rate • Treatment of acute ischemic stroke with intravenous thrombolytic therapy[4] • Primary prevention of rheumatic fever and rheumatic heart diseases by increasing appropriate treatment of streptococcal pharyngitis at the primary care level[5] • Secondary prevention of rheumatic fever and rheumatic heart disease by developing a register of patients who receive regular prophylactic penicillin
Other recommended interventions from WHO guidance (CEA not available)	• Treatment of congestive cardiac failure with angiotensin-converting-enzyme inhibitor, beta-blocker and diuretic • Cardiac rehabilitation post myocardial infarction • Anticoagulation for medium-and high-risk non-valvular atrial fibrillation and for mitral stenosis with atrial fibrillation • Low-dose acetylsalicylic acid for ischemic stroke • Care of acute stroke and rehabilitation in stroke units

* Total risk is defined as the probability of an individual experiencing a cardiovascular disease event (for example, myocardial infarction or stroke) over a given period of time, for example 10 years.

** Costing assumes hospital care in all scenarios.

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

Non financial considerations

[1] Feasible in all resource settings, including by non-physician health workers

[2] Applying lower risk threshold increases health gain but also increases implementation cost

[3] Selection of option depends on health system capacity

[4] Needs capacity to diagnose ischaemic stroke

[5] Depending on prevalence in specific countries or sub-populations

DIABETES

BEST-BUYS AND OTHER RECOMMENDED INTERVENTIONS:

Effective interventions with CEA >I$100 per DALY averted in LMICs	• Preventive foot care for people with diabetes (including educational programmes, access to appropriate footwear, multidisciplinary clinics)[1] • Diabetic retinopathy screening for all diabetes patients and laser photocoagulation for prevention of blindness[1] • Effective glycaemic control for people with diabetes, along with standard home glucose monitoring for people treated with insulin to reduce diabetes complications[1]
Other recommended interventions from WHO guidance (CEA not available)	• Lifestyle interventions for preventing type 2 diabetes • Influenza vaccination for patients with diabetes • Preconception care among women of reproductive age who have diabetes including patient education and intensive glucose management • Screening of people with diabetes for proteinuria and treatment with angiotensin-converting enzyme inhibitor for the prevention and delay of renal disease

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

Non financial considerations

[1] Requires systems for patient recall

CANCER

BEST-BUYS AND OTHER RECOMMENDED INTERVENTIONS:

'Best buys' : Effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in LMICs	• **Vaccination against human papillomavirus (2 doses) of 9–13 year old girls** • **Prevention of cervical cancer by screening women aged 30–49 years, either through:** → **Visual inspection with acetic acid linked with timely treatment of pre-cancerous lesions[1]** → **Pap smear (cervical cytology) every 3–5 years linked with timely treatment of pre-cancerous lesions[2]** → **Human papillomavirus test every 5 years linked with timely treatment of pre-cancerous lesions[3]**
Effective interventions with CEA >I$100 per DALY averted in LMICs	• Screening with mammography (once every 2 years for women aged 50-69 years) linked with timely diagnosis and treatment of breast cancer[4] • Treatment of colorectal cancer stages I and II with surgery +/- chemotherapy and radiotherapy → Basic palliative care for cancer: home-based and hospital care with multi-disciplinary team and access to opiates and essential supportive medicines[5]
Other recommended interventions from WHO guidance (CEA not available)	• Prevention of liver cancer through hepatitis B immunization • Oral cancer screening in high-risk groups (for example, tobacco users, betel-nut chewers) linked with timely treatment • Population-based colorectal cancer screening, including through a faecal occult blood test, as appropriate, at age >50 years, linked with timely treatment

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

Non financial considerations

[1] Visual inspection with acetic acid is feasible in low resource settings, including with non-physician health workers

[2] Pap smear requires cytopathology capacity

[3] Requires systems for organized, population-based screening and quality control

[4] Requires systems for organized, population-based screening and quality control

[5] Requires access to controlled medicines for pain relief

CHRONIC RESPIRATORY DISEASE

BEST-BUYS AND OTHER RECOMMENDED INTERVENTIONS:

Effective interventions with CEA >I$100 per DALY averted in LMICs	• Symptom relief for patients with asthma with inhaled salbutamol • Symptom relief for patients with chronic obstructive pulmonary disease with inhaled salbutamol • Treatment of asthma using low dose inhaled beclometasone and short acting beta agonist
Other recommended interventions from WHO guidance (CEA not available)	• Access to improved stoves and cleaner fuels to reduce indoor air pollution • Cost-effective interventions to prevent occupational lung diseases, for example, from exposure to silica, asbestos • Influenza vaccination for patients with chronic obstructive pulmonary disease

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

POLICY OPTIONS FOR OBJECTIVES 1, 2, 5 AND 6 OF THE GLOBAL ACTION PLAN

Objective 1: To raise the priority accorded to the prevention and control of noncommunicable diseases in global, regional and national agendas and internationally agreed development goals, through strengthened international cooperation and advocacy

MENU OF POLICY OPTIONS

- Raise public and political awareness, understanding and practice about prevention and control of NCDs
- Integrate NCDs into the social and development agenda and poverty alleviation strategies
- Strengthen international cooperation for resource mobilization, capacity-building, health workforce training and exchange of information on lessons learned and best practices
- Engage and mobilize civil society and the private sector as appropriate and strengthen international cooperation to support implementation of the action plan at global, regional and national levels
- Implement other policy options in objective 1

Objective 2: To strengthen national capacity, leadership, governance, multisectoral action and partnerships to accelerate country response for the prevention and control of noncommunicable diseases.

MENU OF POLICY OPTIONS

- Prioritize and increase, as needed, budgetary allocations for prevention and control of NCDs, without prejudice to the sovereign right of nations to determine taxation and other policies
- Assess national capacity for prevention and control of NCDs
- Develop and implement a national multisectoral policy and plan for the prevention and control of NCDs through multi-stakeholder engagement
- Implement other policy options in objective 2 to strengthen national capacity including human and institutional capacity, leadership, governance, multisectoral action and partnerships for prevention and control of NCDs

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

Objective 5: To promote and support national capacity for high-quality research and development for the prevention and control of noncommunicable diseases

MENU OF POLICY OPTIONS

- Develop and implement a prioritized national research agenda for noncommunicable diseases
- Prioritize budgetary allocation for research on noncommunicable disease prevention and control
- Strengthen human resources and institutional capacity for research
- Strengthen research capacity through cooperation with foreign and domestic research institutes
- Implement other policy options in objective 5 to promote and support national capacity for high-quality research, development and innovation

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

Objective 6: To monitor the trends and determinants of noncommunicable diseases and evaluate progress in their prevention and control

MENU OF POLICY OPTIONS

- Develop national targets and indicators based on global monitoring framework and linked with a multisectoral policy and plans
- Strengthen human resources and institutional capacity for surveillance and monitoring and evaluation
- Establish and/or strengthen a comprehensive noncommunicable disease surveillance system, including reliable registration of deaths by cause, cancer registration, periodic data collection on risk factors and monitoring national response
- Integrate noncommunicable disease surveillance and monitoring into national health information systems
- Implement other policy options in objective 6 to monitor trends and determinants of noncommunicable diseases and evaluate progress in their prevention and control

An up-to-date list of WHO tools and resources for each objective can be found at http://www.who.int/nmh/ncd-tools/en

RESOURCES

1. ADDITIONAL TECHNICAL MATERIAL

This updated list of best buys and other recommended interventions is accompanied by a technical annex. The annex provides more detailed information about the methodology used to identify and analyse interventions, and presents the results of the economic analysis separately for low and lower-middle income, and upper-middle and high income countries. Other material is also available at this site: http://www.who.int/ncds/governance/appendix3-update/en/

2. TOOLS

A list of all WHO tools for NCDs can be downloaded at: http://www.who.int/nmh/ncd-tools/en.

Weblinks for the specific programmes are listed below:

WHO NCDs
http://www.who.int/ncds/en

TOBACCO USE
http://www.who.int/tobacco/en

HARMFUL USE OF ALCOHOL:
http://www.who.int/substance_abuse/en

UNHEALTHY DIET:
http://who.int/nutrition/en

PHYSICAL INACTIVITY:
http://www.who.int/dietphysicalactivity/en

DIABETES
http://www.who.int/diabetes/en

CANCER
http://www.who.int/cancer/en

CHRONIC RESPIRATORY DISEASE
http://www.who.int/respiratory/en

CARDIOVASCULAR DISEASE AND DIABETES
http://www.who.int/cardiovascular_diseases/en


World Health
Organization