Noncommunicable disease best buys[1] and other effective interventions[2]

Updated 2024

Prevention and control of noncommunicable diseases (NCDs) requires policy and health service interventions to address the four main NCDs and their underlying risk factors. To date, most countries have made little progress in achieving Sustainable Development Goal target 3.4, which calls for a one-third reduction in premature mortality from NCDs by 2030, compared to 2015 levels. The updated Appendix 3 of the Global Action Plan for the prevention and control of NCDs, endorsed by WHO Member States, provides a list of cost-effective interventions to guide countries' policy decisions. To accelerate rates of decline in NCD mortality, countries can prioritize and scale-up the implementation of most impactful and feasible locally tailored packages of interventions. This work can be supported by advances in the areas of digital solutions, big data and artificial intelligence, which have opened new opportunities for monitoring health and preventing and controlling NCDs.

◉ Best buys • Effective interventions

Risk factors



Reduce tobacco use

- ◉ Increase excise **taxes and prices** on tobacco products
- ◉ Implement **plain packaging** and/or large graphic **health warnings** on all tobacco packages
- ◉ **Ban tobacco advertising, promotion and sponsorship**
- ◉ **Ban smoking** in all indoor workplaces, public places and on public transport
- ◉ **Warn about the harms** of smoking/tobacco use and second-hand smoke through mass media campaigns
- ◉ Provide cost-covered, effective, population-wide **tobacco cessation** services
- • Provide cost-covered, effective pharmacological interventions support for **tobacco cessation**, through nicotine replacement therapy, bupropion and varenicline



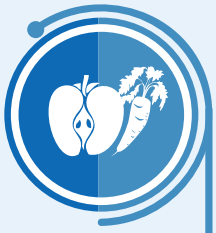
Reduce harmful use of alcohol

- ◉ Increase excise **taxes** on alcoholic beverages
- ◉ **Enforce bans or restrictions on exposure to alcohol advertising**
- ◉ **Restrict the physical availability** of retailed alcohol (via reduced hours of sale)
- • Enact and enforce **drink-driving laws** and **blood alcohol concentration limits**
- • Provide **psychosocial intervention** for persons with hazardous and harmful alcohol use

[1] Best buys are effective interventions with a cost–effectiveness analysis ≤ I$ 100 per disability-adjusted life year (DALY) averted in low- and middle-income countries. I$ = the international dollar, a hypothetical unit of currency that has the same purchasing power parity that the US dollar had in the United States at a given point in time.

[2] Effective interventions with a cost–effectiveness analysis ≥ I$ 100 per DALY.

World Health Organization
Eastern Mediterranean Region



Promote healthy diet

- Reformulate policies **to eliminate trans-fatty acids and/or saturated fats, free sugars and/or sodium** for healthier food and beverage products
- Implement policies to enforce **front-of-pack comprehensive nutrition labelling**
- Carry out mass media **campaigns** for healthy diets
- Promote, protect and support optimal **breastfeeding** practices
- Enforce **policies to protect** children from the harmful impact of food marketing
- Promote healthy diets through public food procurement and service policies

- Raise **taxes on sugar-sweetened beverages and food** to reduce sugar consumption



Promote physical activity

- Promote physical activity through population-wide communication campaigns with links to community-based education, motivational and environmental programmes

- Provide physical activity counselling and referral as part of routine primary health care

Main diseases



Diabetes

- Control the **blood pressure** of people with diabetes
- Offer **glycaemic control** for people with diabetes
- Use **statins** in people with diabetes who are above the age of 40
- Provide **preventive foot care** for people with diabetes
- **Screen** diabetes patients for retinopathy and provide laser photocoagulation to **prevent blindness**
- Screen people with diabetes for **albuminuria** and treat with angiotensin converting enzyme inhibitors (ACE-I) to prevent/delay **renal disease**



Cardiovascular disease

Rheumatic heart disease

- **Develop a register** for patients who receive regular prophylactic penicillin as a secondary prevention of rheumatic fever and rheumatic heart disease

- **Prevent rheumatic fever** and rheumatic heart disease by increasing appropriate treatment of streptococcal pharyngitis at primary care level

Cardiovascular events

- **Use one of the following drugs for the treatment of hypertension:** thiazide and thiazide-like agents, ACE-I/angiotensin-receptor blockers and calcium channel blockers

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Cardiovascular disease *(continued)*

Cardiovascular events *(continued)*

- For **new cases of acute myocardial infarction** patients initially treated in a hospital setting, treat with
  - acetylsalicylic acid OR acetylsalicylic acid and thrombolysis OR acetylsalicylic acid, clopidogrel and thrombolysis, with follow-up carried out through primary health care facilities at a 95% coverage rate; selection depends on health system capacity
- Treat **new cases of myocardial infarction** with primary percutaneous coronary intervention, acetylsalicylic acid and clopidogrel, with patients initially treated in a hospital setting with follow-up carried out through primary health care facilities at a 95% coverage rate

Secondary prevention of cardiovascular events

- **Prescribe a statin and an antihypertensive drug** and counselling for individuals who have had a heart attack or stroke and to persons with a high risk (more than 20%) of a cardiovascular event in the next 10 years, as per the updated WHO cardiovascular disease (CVD) risk charts
- **Prescribe an antihypertensive drug** and counselling for individuals who have had a heart attack or stroke and to persons with a high risk (more than 10%) of a cardiovascular event in the next 10 years, as per the updated WHO CVD risk charts

Stroke

- **Treat acute ischaemic stroke** with intravenous thrombolytic therapy
- Administer **low-dose acetylsalicylic acid** within 24 to 48 hours for secondary prevention of ischaemic stroke
- **Treat acute ischaemic stroke** with mechanical thrombectomy within an experienced facility
- Provide comprehensive care of **acute stroke** patients in stroke units

Cancer

- Emphasize the early detection and comprehensive treatment of cancer for those **living with HIV**
- **Implement early diagnosis programmes** for childhood cancer (the six index cancers of the Global Initiative for Childhood Cancer), cervical cancer, breast cancer and colorectal cancer, linked with timely diagnostic work-up and comprehensive treatment
- **Prevent liver cancer** through hepatitis B immunization
- **Prevent cervical cancer**:
  - Vaccinate girls aged 9–14 years against human papillomavirus (HPV) (1 or 2 doses)
  - Provide HPV DNA screening for women starting at the age of 30 years, with regular screening every 5–10 years

Screening

- Provide **breast cancer screening** with mammography for women aged 50–69 years, once every two years, linked with timely diagnosis and comprehensive treatment in settings where mammography screening is recommended
- Provide a population-based **colorectal cancer** screening programme, including through stool-based tests, above the age of 50, linked with timely treatment and in settings where screening is recommended

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Cancer *(continued)*

Early diagnosis

- Provide early diagnosis programmes for **prostate cancer** and **head and neck cancers,** linked with timely diagnostic work-up and comprehensive cancer treatment
- Provide early detection programmes for **oral cancer** according to the disease burden and health system capacities and linked with comprehensive cancer management and screening programme for high-risk groups

Palliative care

- Provide home-based and hospital-based **palliative care** services

Chronic respiratory disease

- Provide acute treatment with **inhaled bronchodilators and oral steroids** for asthma exacerbations and chronic obstructive pulmonary disease (COPD) exacerbations
- Provide long-term management of COPD with **inhaled bronchodilator**
- Provide long-term management of asthma with inhaled bronchodilator and low-dose beclomethasone

Other recommended interventions from WHO guidance cross-cutting among all four main NCDs include seasonal influenza and COVID-19 vaccination.[3] Please scan the QR code on this document to learn about the other recommendations for each of the main diseases and their underlying risk factors.

[3] Cost–effectiveness analysis not available.

Source: Tackling NCDs: best buys and other recommended interventions for the prevention and control of noncommunicable diseases, second edition. Geneva: World Health Organization; 2024 (https://www.who.int/publications/i/item/9789240091078). Licence: CC BY-NC-SA 3.0 IGO.

Note: The source document includes a comprehensive listing of 112 interventions that are categorized as overarching/enabling policy actions, the most cost-effective interventions, and other effective interventions. This document presents a short summary of the main evidence based NCD interventions.

In 2022, the Global Action Plan https://www.who.int/publications/i/item/9789241506236 was updated with new evidence, refined interventions, and new scientific data, and endorsed by the World Health Assembly in 2023. It includes 90 interventions and 22 policy actions for key risk factors and NCDs, assessed for cost–effectiveness, feasibility, and non-economic factors. The update features unchanged, revised, and newly cost-effective interventions, with 28 identified as "best buys" due to their high cost–effectiveness. This also aligns with the Regional Framework for action on the prevention and control of NCDs https://applications.emro.who.int/docs/EMRPUB-NCD-146-2019-EN.pdf?ua=1&ua=1&ua=1.

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WHO-EM/NCD/159/E