
Effective interventions to decrease the burden of noncommunicable diseases

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WE KNOW HOW TO REDUCE NCD INCIDENCE, PREVALENCE AND MORTALITY



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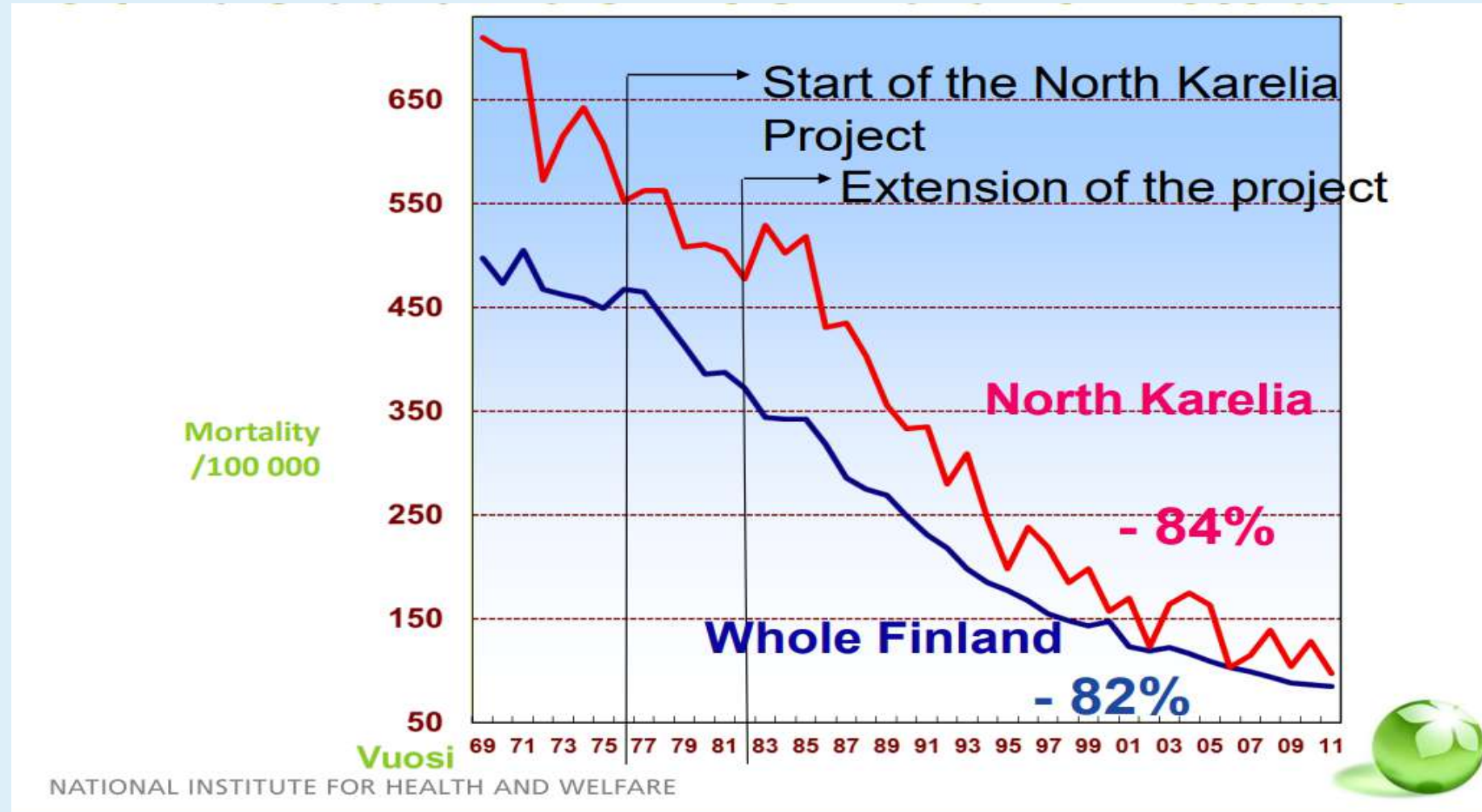
The success of Finland – yes, we can make it!

Finland decreased the level of premature mortality from CVD by 80%

Puska, Pekka. "Fat and Heart Disease: Yes We Can Make a Change - The Case of North Karelia (Finland)." *Annals of nutrition and metabolism* 54.1 (2009): 33–38. Web.



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WHAT DO WE KNOW?



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NCDs are multifactorial!

Unnecessary and insufficient to cause the disease

More than one risk factor is associated with one health condition

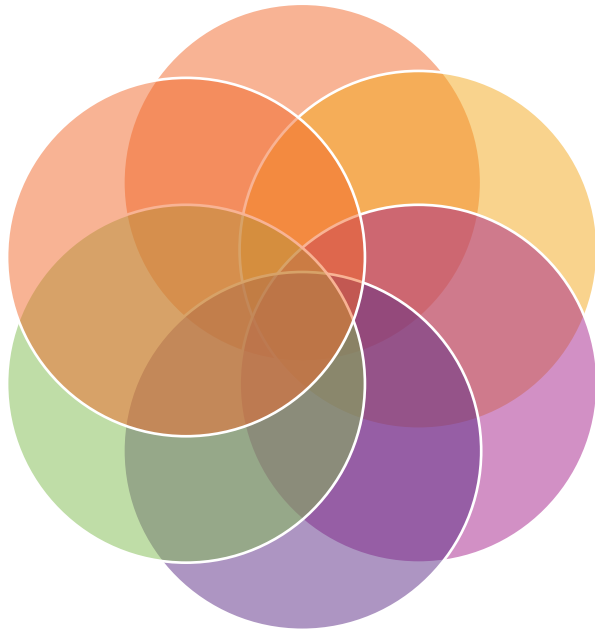
The same risk factor is associated with more than one health condition



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Implication for Public Health Action:



Tackle more than one risk factor to improve health outcomes

5X5

DISEASES



**Cardiovascular
Disease**



**Chronic Respiratory
Diseases**



Cancer

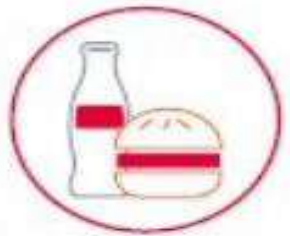


Diabetes



**Mental and
Neurological Conditions**

RISK FACTORS



Unhealthy Diet



Tobacco Use



**Harmful Use of
Alcohol**

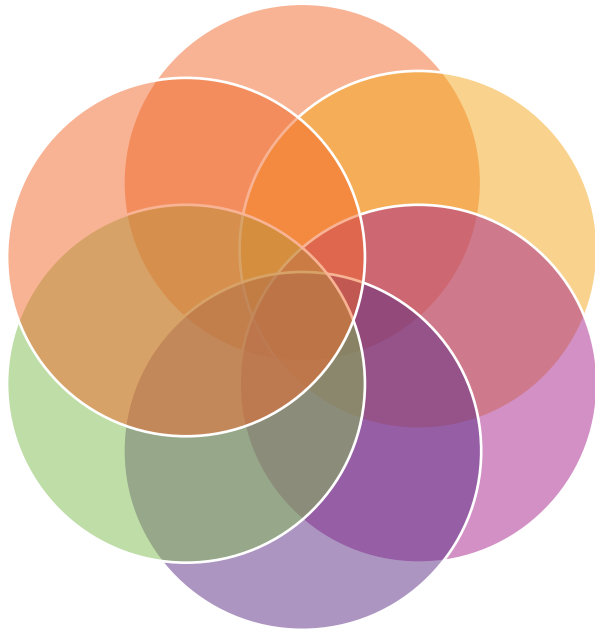


Physical Inactivity



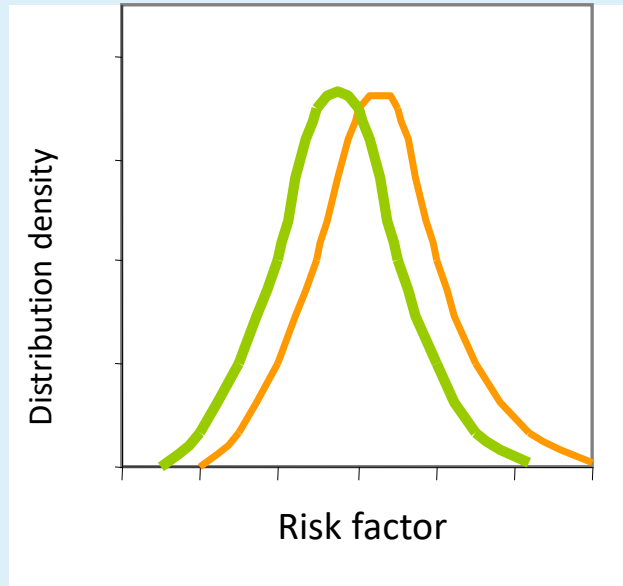
Air Pollution

Implication for Public Health Action:



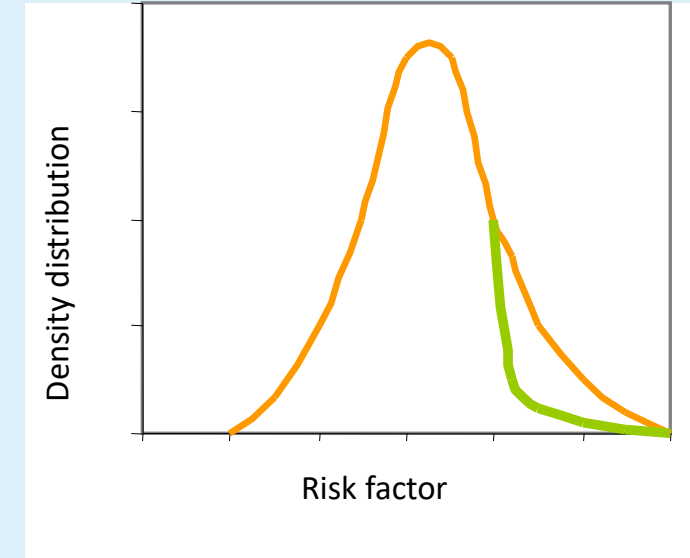
**Prioritize interventions to
tackle 5 major risk factors
&
5 major NCDs**

Strategies for reducing burden of NCDs



« Population strategy »

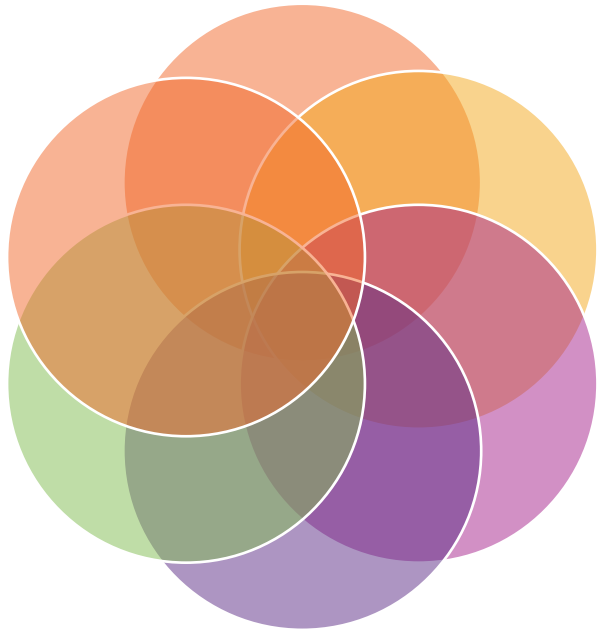
- Public health approach
- Targets entire population



« High-risk strategy »

- Screening & treatment of high-risk individuals
- Targets selected individuals

Implication for Public Health Action:



Both are important.

Population-based interventions are often more cost-effective as they prevent or delay the onset of NCD.

Clinical interventions are essential for early diagnosis, timely treatment and better outcomes.

NCD Best Buys Strategies (updated in 2023 at 76th WHA)

'Best buys' and other recommended interventions for the prevention and control of noncommunicable diseases

TACKLING NCDs



'Best buys': Effective interventions with cost effectiveness analysis \leq I\$ 100 per DALY averted



Effective interventions with cost effectiveness analysis $>$ I\$ 100 per DALY averted



Other recommended interventions from WHO ^o guidance (cost effective analysis not available)

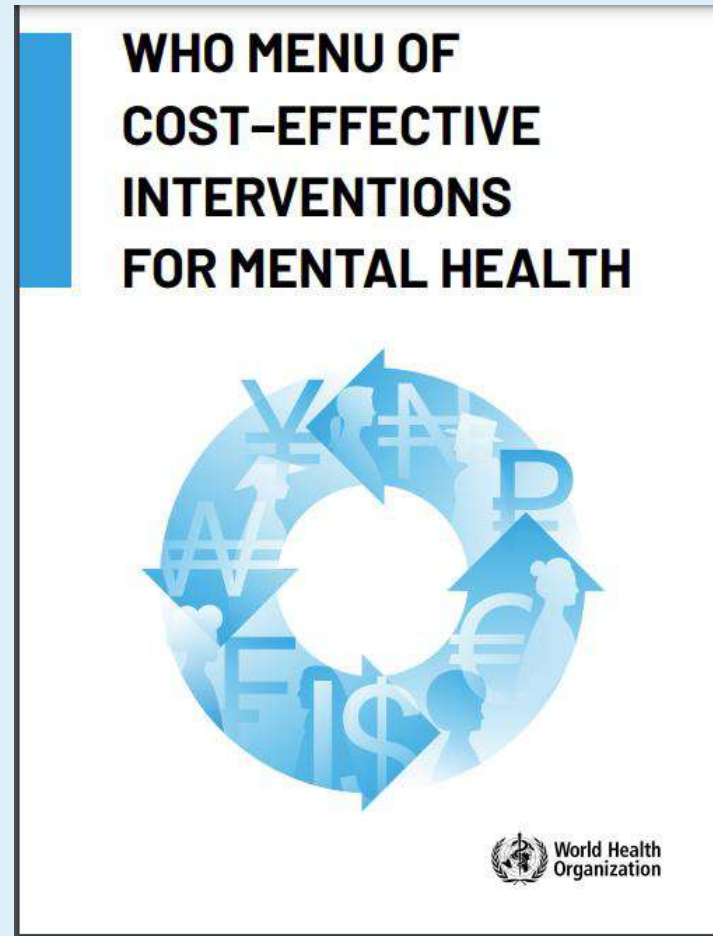


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<https://www.who.int/teams/noncommunicable-diseases/updating-appendix-3-of-the-who-global-ncd-action-plan-2013-2030>

- Assessed for cost effectiveness, feasibility, as well as non-financial considerations
- 90 interventions and 22 overarching/enabling actions (112 in total), out of which 58 interventions with cost-effectiveness estimates
- 62 countries grouped in three income categories

Cost-effective interventions for mental health



Interventions to improve air quality



<https://www.who.int/tools/compendium-on-health-and-environment>

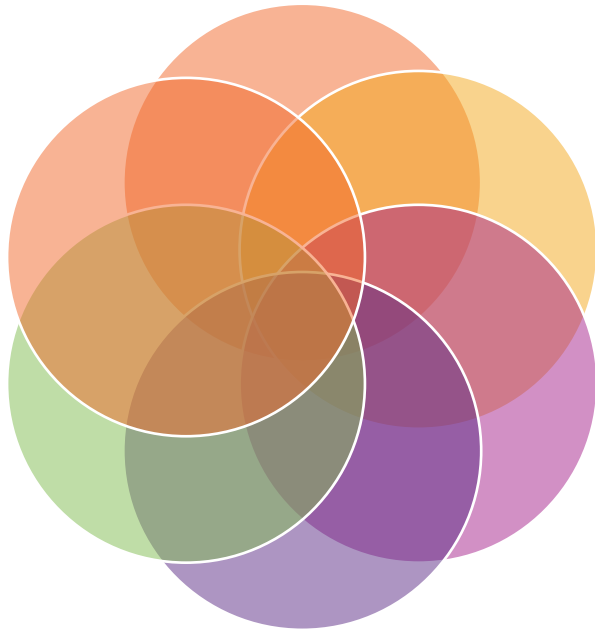


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<https://www.who.int/publications/i/item/9789240034228>

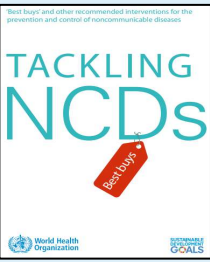
Implication for Public Health Action:



Go for it!

- Population-based: policies, communication, services**
- High risk: health services**

“Best buys”: Policies



Tobacco

1. **Increase excise taxes and prices** on tobacco products
2. Enact and enforce comprehensive **bans on tobacco advertising, promotion and sponsorship**
3. Implement **large graphic health warnings** on all tobacco packages, accompanied by plain/standardized packaging
4. Eliminate exposure to **second-hand tobacco smoke** in all indoor workplaces, public places, public transport

Alcohol

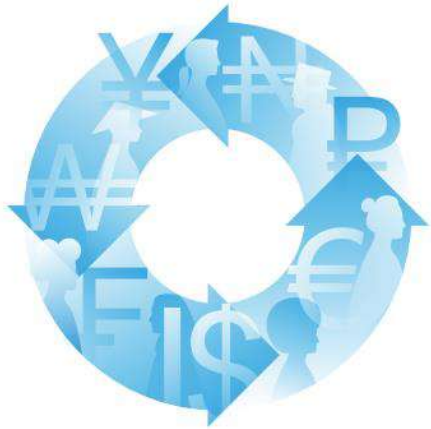
1. **Increase excise taxes** on alcoholic beverages
2. Enact and enforce **bans or comprehensive restrictions on exposure to alcohol advertising** (across multiple types of media)
3. Enact and enforce **restrictions on the physical availability** of retailed alcohol (via reduced hours of sale)

Unhealthy Diet

1. **Reformulation policies** for healthier food and beverage products (e.g. elimination of transfatty acids and/or reduction of saturated fats, free sugars and/or sodium)
2. **Front-of-pack labelling** as part of comprehensive nutrition labelling policies for facilitating consumers' understanding and choice of food for healthy diets
3. **Public food procurement and service policies** for healthy diets (e.g. to reduce the intake of free sugars, sodium, unhealthy fats, and to increase the consumption of legumes, wholegrains, fruits and vegetables)
4. **Policies to protect children** from the harmful impact of food marketing on diet
5. Protection, promotion and support of optimal **breastfeeding** practices

Cost-effective interventions for mental health

WHO MENU OF COST-EFFECTIVE INTERVENTIONS FOR MENTAL HEALTH



POPULATION-BASED INTERVENTIONS

	Intervention
P1	Universal school-based socioemotional learning programmes to improve mental health and prevent suicide in adolescents
P2	Indicated school-based socioemotional learning programmes ^b to improve mental health and prevent suicide in adolescents
P3	Regulatory bans on the use of highly hazardous pesticides ^c to prevent suicide (7)

<https://www.who.int/publications-detail-redirect/9789240031081>



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“Best Buys”: Communication

Tobacco

- Implement effective mass media campaigns that educate the public about the **harms of smoking/tobacco use and secondhand smoke**, and encourage behavior change

Unhealthy Diet

- Behaviour change communication and mass media campaign for **healthy diets** (e.g. to reduce the intake of energy, free sugars, sodium, unhealthy fats, and to increase the consumption of legumes, wholegrains, fruits and vegetables)
- Promotion of optimal **breastfeeding practices**

Physical Activity

- Implement sustained, population wide, best practice communication campaigns to **promote physical activity**, with links to community-based programmes and environmental improvements to enable and support behaviour change

“Best Buys”: Population-Based Service

Tobacco

- Provision of cost-covered effective population-wide support (including brief advice, national toll-free quit line services and mCessation) for tobacco cessation to all tobacco users

Unhealthy Diet

- Support of optimal breastfeeding practices

Best Buys™: Clinical services

Cardiovascular Disease

- Secondary prevention of rheumatic fever and rheumatic heart disease by developing a register of patients who receive regular prophylactic penicillin

Chronic Respiratory Diseases

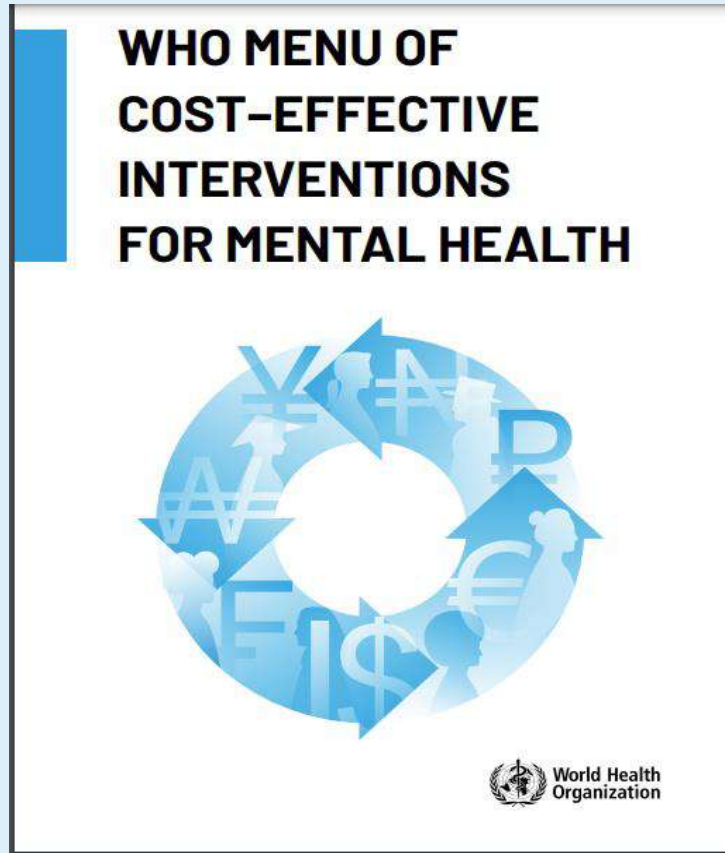
- Acute treatment of asthma exacerbations with inhaled bronchodilators and oral steroids
- Acute treatment of COPD exacerbations with inhaled bronchodilators and oral steroids
- Long-term management of COPD with inhaled bronchodilator

Best Buys”: Clinical services (cont.)

Cancer

- **Cervical cancer:**
 - Vaccination against human papillomavirus (1-2 doses) of 9–14 year old girls
 - Cervical cancer: HPV DNA screening, starting at the age of 30 years with regular screening every 5 to 10 years (using a screen-and-treat approach or screen, triage and treat approach)
 - Cervical cancer: early diagnosis programs linked with timely diagnostic work-up and comprehensive cancer treatment
- **Breast cancer:** early diagnosis programs linked with timely diagnostic work-up and comprehensive cancer treatment
- **Colorectal cancer:** early diagnosis programs linked with timely diagnostic work-up and comprehensive cancer treatment
- Prevention of **liver cancer** through hepatitis B immunization
- **Childhood cancer:** early diagnosis programs linked with timely diagnostic work-up and comprehensive cancer treatment, focusing on 6 index cancers of WHO Global Initiative for Childhood Cancer
- Early detection and **comprehensive treatment of cancer for those living with HIV**

Cost-effective interventions for mental health



<https://www.who.int/publications-detail-redirect/9789240031081>



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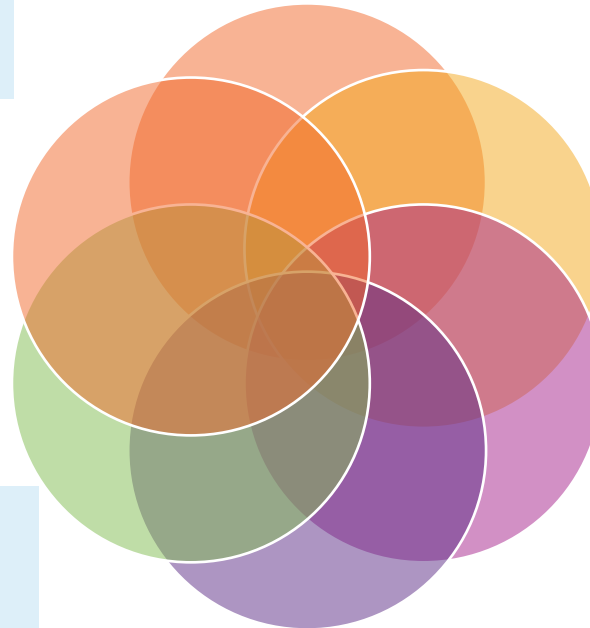
INDIVIDUAL-LEVEL INTERVENTIONS ^d	
	Intervention
Psychosis (adults)^e	
I1	Basic psychosocial support and older antipsychotic medication
I2	Basic psychosocial support and newer antipsychotic medication
I3	Psychological treatment ^f and older antipsychotic medication
I4	Psychological treatment and newer antipsychotic medication
Bipolar disorder (adults)^g	
I5	Basic psychosocial support and mood stabilizing medication (lithium)
I6	Psychological treatment ^h and mood stabilizing medication (lithium)
I7	Basic psychosocial support and mood stabilizing medication (valproate ⁱ)
I8	Psychological treatment and mood stabilizing medication (valproate)
Depression (adults)^j	
I9	Basic psychosocial support for mild cases
I10	Basic psychosocial support and antidepressant medication for first episode moderate–severe cases
I11	Psychological treatment ^k of first episode moderate–severe cases
I12	Psychological treatment and antidepressant medication of first episode moderate–severe cases
I13	Basic psychosocial support and antidepressant medication for recurrent moderate–severe cases on an episodic basis
I14	Psychological treatment of recurrent moderate–severe cases on an episodic basis
I15	Psychological treatment and antidepressant medication for recurrent moderate–severe cases on an episodic basis
I16	Basic psychosocial support and antidepressant medication for moderate–severe cases on a maintenance basis
I17	Psychological treatment of recurrent moderate–severe cases on a maintenance basis

More to consider for effective Public Health Action to tackle NCDs

Monitor, assess and document!

You are not limited to what is in WHO list

Financial and non-financial considerations



All levels: national, subnational, communities

Multi-partner: government & NGO, public & private

Life-course approach



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