

NCD Prevention and Control

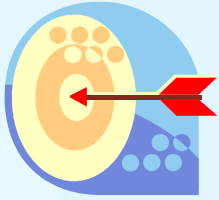
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Learning Objective

At the end of the training, participants will be able to:

- Describe action items for accomplishing at least three of the WHO objectives from the 2008-2013 Global Strategy Action Plan in your own country
- Describe potential barriers to implementing the recommendations and how to overcome them



Lesson Overview

- Global and national goals of NCD prevention and control
- NCD prevention and control strategies
- Integration of chronic disease prevention programs
- Current challenges in chronic disease control



GOALS FOR NCD PREVENTION AND CONTROL

Definition of Prevention

Prevention: Activities to stop people from getting diseases or to stop a disease from getting worse:

For example,

- Health promotion activities encourage healthy living and delay onset of disease
- Early detection programs (e.g., screening populations at risk for certain diseases)
- Strategies to manage diseases and related complications so that their progress is slowed or stopped

- Power of Prevention (CDC)

Definition of Control

Control: Activities to slow the course of an existing disease or reduce its severity

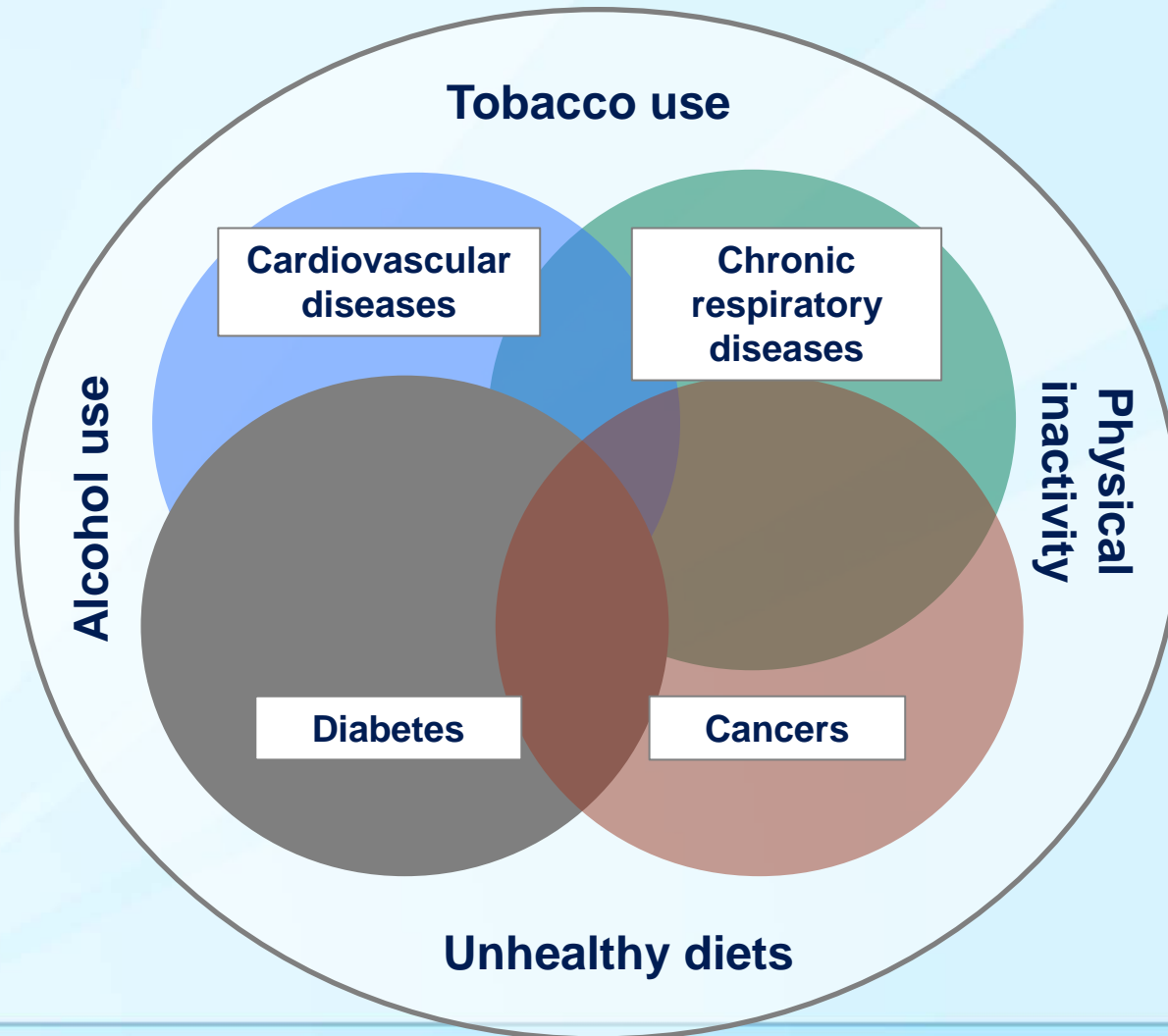
- Activities to control a disease occur after the disease has been contracted
- Control activities reduce the pathological effects resulting from a disease

Goals for NCD Prevention and Control

- Reduce incidence of disease
- Delay onset of disease and disability
- Alleviate severity of disease
- Improve health-related quality and duration of individual's life (Doll 1985)

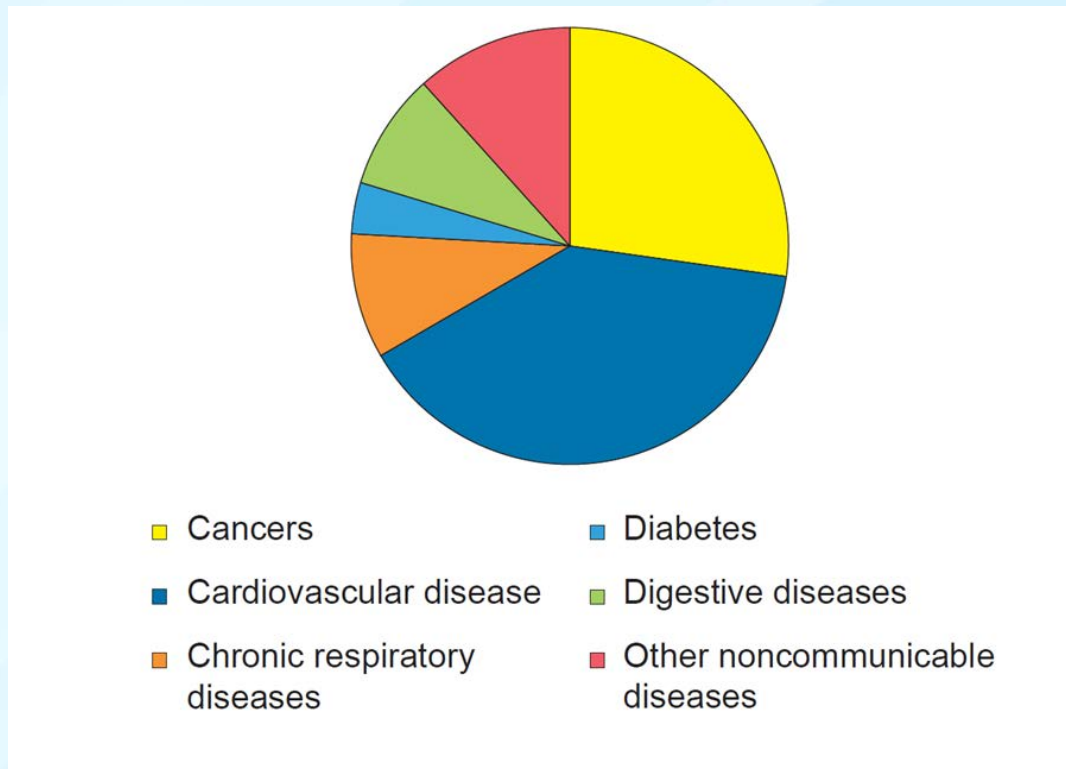


WHO Global Strategy 2008-2013 Action Plan



Why Focus on Four Main NCDs?

% of total NCD deaths under age 70, by cause of death, 2008



Source: http://www.who.int/nmh/publications/ncd_report2010/en/

Six WHO Objectives



Action Items: WHO Objective #1

1. **Priority:** Raise priority and integrate prevention and control into policies
 - Assess and monitor burden of NCDs and their determinants
 - Incorporate NCD prevention and control into relevant social and economic policies
 - Implement programs that focus on social determinants of NCDs

Example of Implementing Objective #1 - Priority

- WHO endorsed the Global Strategy on Diet, Physical Activity and Health at the 57th World Health Assembly
- Goal is “to improve public health through healthy eating and physical activity”
- Reflects international recognition of the worldwide changes in physical activity levels as a consequence of countries’ demographic and socioeconomic development, and globalization

Action Items: WHO Objective #2

2. Leadership: Establish and strengthen national policies and plans

Establish a high-quality surveillance and monitoring system to provide population-based mortality statistics and standardized data on:

- NCDs
- Key risk factors
- Behavioral patterns

Example of Implementing Objective #2 - Leadership

Thailand – Adopted national policies declaring exercise for health as priority action area (National Health Development Plan, 2002-2006)

- Working in collaboration with WHO, International Health Regulations (IHR), and Bureau of Epidemiology to rapidly identify, assess and lessen public health threats and emergencies
- High priority focus on disease surveillance, laboratory capacity and point of entry

Action Items: WHO Objective #3

3. Interventions: Focus on shared modifiable risk factors

- Implement strategies for reducing risk factors for NCDs that aim at providing and encouraging healthy choices
- Consider strategies that involve public and private sectors in multiple areas (agriculture, finance, urban planning, education, sports)
- Consider different settings for action; for example, schools, workplaces, local communities

Example of Implementing Objective #3 - Interventions

- **China** – “Healthy Exercise For All” campaign (2000)
- Major **promotional events** with seasonal themes for the general public (e.g., Water Sport Carnival)
- **Fitness programs** targeting children, senior citizens, disabled people
- **Stair climbing scheme** promoting daily physical activity through stair use
- **“Dance for Health” programs** in districts (e.g., social and aerobic dance classes)
- **Active Living Charter** targeting people in workplaces and schools; participants get a brochure on how to organize activities in their settings
- **Rope skipping activities** (e.g., Rope Skipping Promotion Day)

Action Items: WHO Objective #4

4. Research: Promote research for NCD prevention and control

- Research is done at a high level within the Ministry of Health
- MOH researchers and administrators are likely to work with researchers and administrators at other national and international health agencies, academic institutions and private institutions

Action Items: WHO Objective #5

5. Partnerships: Promote partnerships for NCD prevention and control

- Participate actively in regional and sub regional networks for NCD prevention and control
- Establish effective partnerships for NCD prevention and control
- Develop collaborative networks involving key stakeholders

Example of Implementing Objective #5 - Partnerships

Brazil – “Agita São Paulo” grassroots campaign started to encourage people to exercise 30 minutes a day

Success at local levels grew to national and international levels, in part because of increased partnerships and key stakeholder participation:

- Centre for Laboratory Studies on Physical Activity of São Caetano do Sul (CELAFISCS)
- State Department of Health
- Scientific Committee (Physicians, Physical Education Teachers, Social Workers)
- Intersectoral Executive Committee (>300 governmental organizations, NGO's, and private health, education and sports industries)

Action Items: WHO Objective #6

6. Monitor and Evaluate: Monitor NCDs and determinants and evaluate progress

- Strengthen (or establish) surveillance systems and standardized data collection on risk factors, disease incidence and mortality by cause
- Contribute, on a routine basis, data and information on trends in NCDs and risk factors

Example of Implementing Objective #6 - Monitor and Evaluate

Colombia – “Muévete Bogotá” exercise campaign: targeted companies and neighborhood groups to encourage physical activity in the workplace and community

Process and outcome evaluations conducted by an evaluation committee

Standardized data collection from

- databases of physical activity participants maintained by each partner company
- Physical Activity Questionnaire baseline results
- multiple surveys conducted with partner companies annually



NCD PREVENTION AND CONTROL STRATEGIES




Types of NCD Prevention and Control Strategies

Prevention Strategy	Health Promotion	Primary Prevention	Secondary Prevention	Tertiary Prevention
Target	↓	↓	↓	↓
Effects	↓	↓	↓	↓



Health Promotion- Target Example

Prevention Strategy	Health Promotion	Primary Prevention	Secondary Prevention	Tertiary Prevention
Target	Entire Population	↓	↓	↓
Effects				



Health Promotion- Effect Example

Prevention Strategy	Health Promotion	Primary Prevention	Secondary Prevention	Tertiary Prevention
Target	Entire Population			
Effects	Prevent risk factors, lower population risk			


Primary Prevention- Target Example

Prevention Strategy	Health Promotion	Primary Prevention	Secondary Prevention	Tertiary Prevention
Target	Entire Population	People with one or more risk factors		
Effects	Prevent risk factors, lower population risk			


Primary Prevention- Effects Example

Prevention Strategy	Health Promotion	Primary Prevention	Secondary Prevention	Tertiary Prevention
Target	Entire Population	People with one or more risk factors		
Effects	Prevent risk factors, lower population risk	Prevent development of disease at early age		

Secondary Prevention- Target Example

Prevention Strategy	Health Promotion	Primary Prevention	Secondary Prevention	Tertiary Prevention
Target	Entire Population	People with one or more risk factors	People at early stage of disease	
Effects	Prevent risk factors, lower population risk	Prevent development of disease at early age		

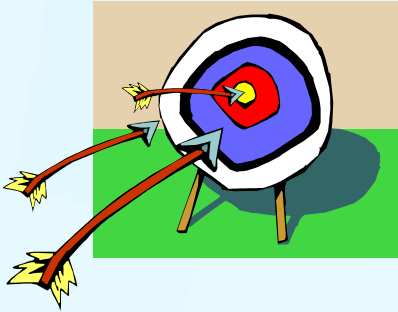
Secondary Prevention- Effects Example

Prevention Strategy	Health Promotion	Primary Prevention	Secondary Prevention	Tertiary Prevention
Target	Entire Population	People with one or more risk factors	People at early stage of disease	
Effects	Prevent risk factors, lower population risk	Prevent development of disease at early age	Prevent disease progression or recurrence	

Tertiary Prevention Example

Prevention Strategy	Health Promotion	Primary Prevention	Secondary Prevention	Tertiary Prevention
Target	Entire Population	People with one or more risk factors	People at early stage of disease	People with symptomatic or advanced disease
Effects	Prevent risk factors, lower population risk	Prevent development of disease at early age	Prevent disease progression or recurrence	Reduce complications or disability

National NCD Vision, Mission, Goals, and Strategies





INTEGRATION OF CHRONIC DISEASE PREVENTION PROGRAMS

NCDs and Modifiable Risk Factors

Modifiable Risk Factor	CVD	Cancer	Type 2 Diabetes	Chronic Lung Disease
Tobacco use	X	X	X	X
Alcohol use	X	X		
High cholesterol	X			
High blood pressure	X			
Unhealthy diet	X	X	X	
Physical inactivity	X	X	X	
Obesity	X	X	X	

Integrated Approach

- Integrates primary, secondary, tertiary prevention, health promotion, and related programs across sectors and different disciplines
- Responds to the need of intervention on major common risk factors with the aim of reducing premature mortality and morbidity of chronic non-communicable diseases

How Can You Improve Program Integration?

Determine which populations are at greatest risk

Focus on social determinants of health and major risk factors: tobacco use, alcohol use, physical inactivity, and unhealthy diets

- Social economic status, income level, education level
- Food security, housing security, job security

Coordinate interventions within key settings



CURRENT CHALLENGES IN NCD PREVENTION & CONTROL

Activity: Challenges to NCD Prevention and Control

1. As a group, discuss recent challenges you have had in preventing and controlling NCDs
2. Discuss how you overcame each challenge
3. Choose one person's challenge and how it was solved and present to the rest of the class

Challenges to NCD Prevention and Control

- Lack of information about chronic diseases
- Lack of communication about health risks
- Workforce and training problems
- People's resistance to changing long-held habits
- Complexity of interventions to prevent or control NCDs
- Long time lag between implementation of interventions and measurable health outcomes
- Complex interaction among determinants



REVIEW

Review: Questions 1-2

1. Which chronic diseases are the focus of WHO's 2008-2013 Action Plan?
2. Which risk factors are the focus of WHO's 2008-2013 Action Plan?

Review: Answers 1-2

1. Which chronic diseases are the focus of WHO's 2008-2013 Action Plan?

cardiovascular disease, type 2 diabetes, cancers, chronic respiratory diseases

2. Which risk factors are the focus of WHO's 2008-2013 Action Plan?

tobacco use, alcohol use, unhealthy diets, physical inactivity

Review: Questions 3-4

3. What are the four strategies to prevent or control NCDs?
4. What are the target and effects of a health promotion strategy?

Review: Answers 3-4

3. What are the four strategies to prevent or control NCDs? *Health promotion, primary prevention, secondary prevention, and tertiary prevention*
4. What are the target and effects of a health promotion strategy? *Entire population; prevents risk factors, lowers average population risk*

Review: Questions 5-6

5. What are the target and effect of a primary prevention strategy?
6. What are the target and effect of a secondary prevention strategy?

Review: Answers 5-6

5. What are the target and effect of a primary prevention strategy? *People with one or more risk factors; to prevent development of early disease*
6. What are the target and effect of a secondary prevention strategy? *People with early stage disease; to prevent disease progression or recurrence*

Review: Questions 7-9

7. What is an example of health promotion?
8. What is an example of primary prevention?
9. What is an example of secondary prevention?

Review: Answers 7-9

7. What is an example of health promotion? *A marketing campaign about the importance of physical activity and healthy diets*
8. What is an example of primary prevention? *Smoking cessation program*
9. What is an example of secondary prevention? *Blood pressure monitoring for people with high blood pressure*

Half-Truths and Misunderstandings

MISUNDERSTANDING

**CHRONIC DISEASE
PREVENTION AND CONTROL
IS TOO EXPENSIVE**

- Reality: Inexpensive and cost-effective interventions

Skill Assessment

1. You will work *individually* to complete the assessment
2. Select a minimum of three WHO objectives from the 2008-2013 Global Strategy
3. Describe a minimum of one action item you would recommend your country implements to accomplish each objective selected
4. Describe potential barriers to implementing the recommendations and how you would overcome them
5. Be prepared to share your responses with the class



Centers for Disease Control and Prevention (CDC). Introduction to NCD Epidemiology. Atlanta, Georgia: Centers for Disease Control and Prevention (CDC); 2013.

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

