# Health **Promotion for NCD Prevention**





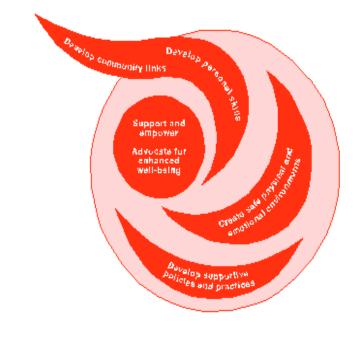
Dr. Cherian Varghese MD., Ph.D. Technical Officer, NCD



#### Ottawa Charter for Health Promotion First International Conference on Health Promotion Ottawa, 21 November 1986

### Prerequisites for Health

- peace,
- shelter,
- education,
- food,
- income,
- a stable eco-system,
- sustainable resources,
- social justice, and equity.

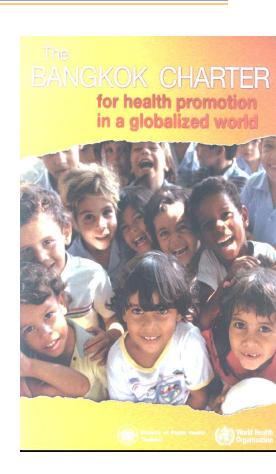


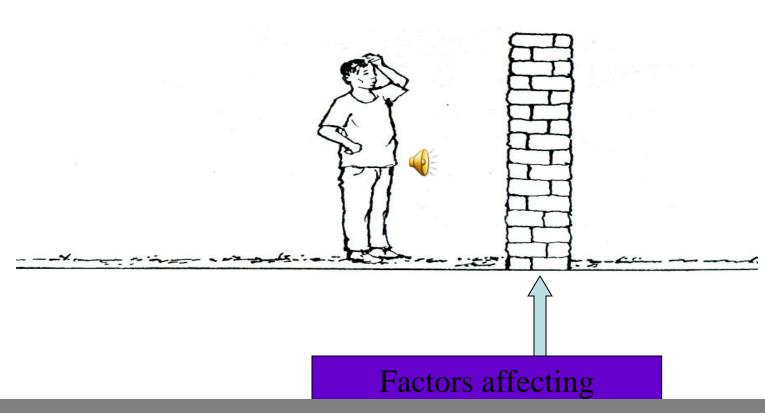




### Health Promotion

- **Definition-"the process of enabling** people to increase control over and to improve their health'
- Introduced into public health in Ottawa in 1986.
- Five critical areas of health promotion
  - **Healthy public policy**
  - creating supportive environments
  - strengthening community action
  - developing personal skills
  - **Reorienting health services**





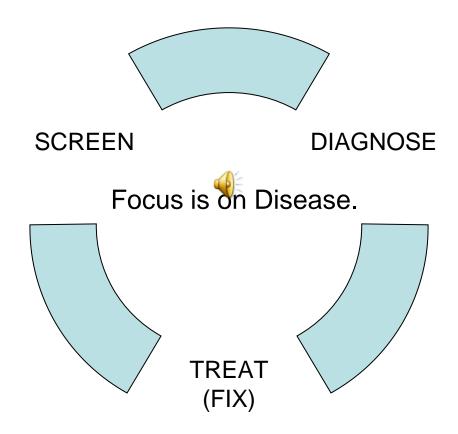
\* Awareness\* Money

- \* Time
- \* Material

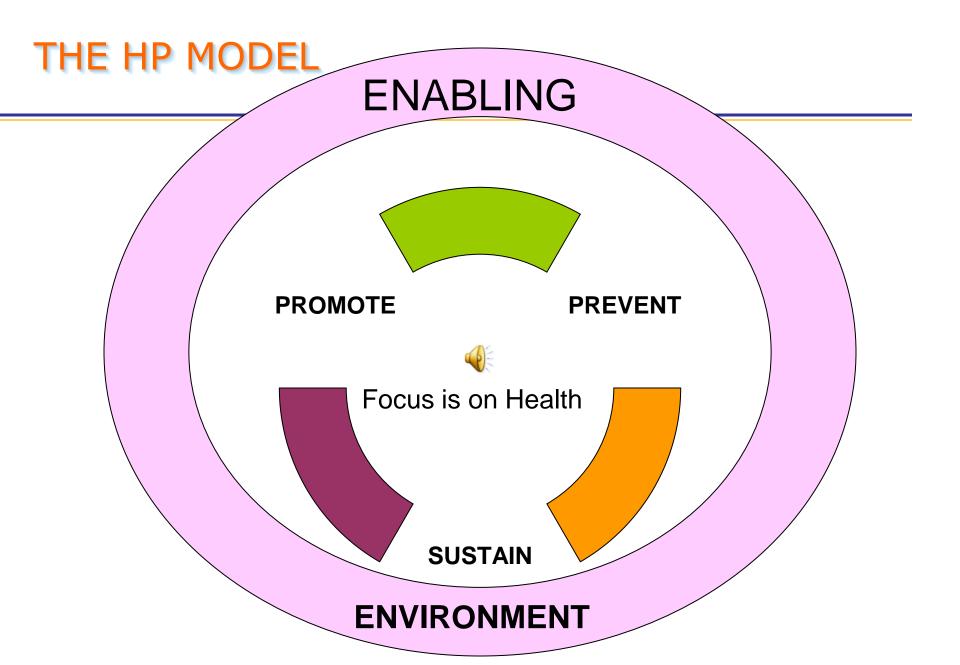
- \* Transport
  - Decision making

\* Appropriate & accessible health services

## THE MEDICAL MODEL









### Causes of causes

### **Distal**

#### determinants

- Tobacco availability and promotion
- Promotion of alcohol and easy availability
- Advertisement and availability of unhealthy foods
- Lack of facilities for physical activity
- It is cheaper to live. unhealthy

### **Proximal** determinants

- 1. Alcohol abuse
- 2. Tobacco use
- Overweight/Obesity
- Hypertension<sub>></sub>

Interventions in non health sectors can lead to impacts on health

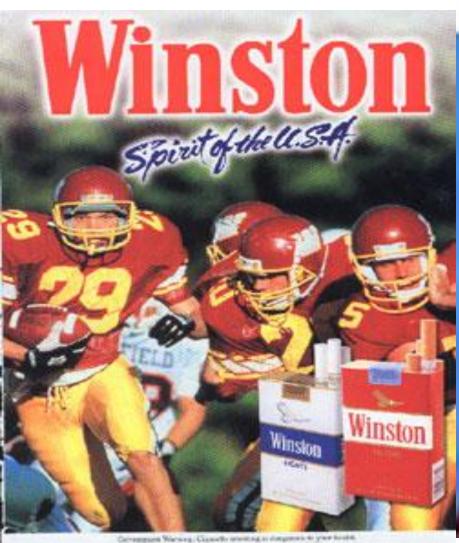
**Vulnerable** 

population

#### **Health outcomes**

- **1.DM**
- 2.CVD
- 3.Cancer
- 4. Chronic Lung disease
- 5. Road traffic accidents
- 6.Depression

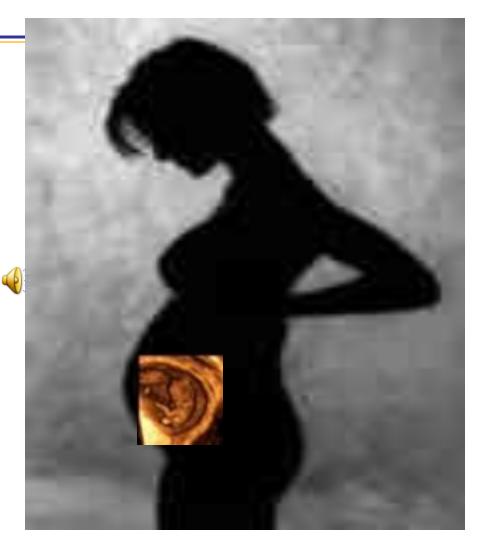
# Strong?





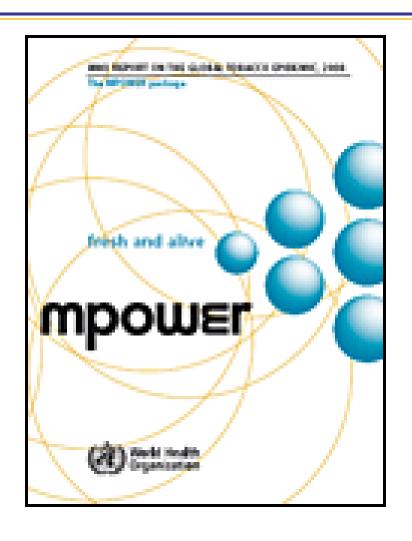
## Making the next generation unwell!







### **MPOWER:** 6 policies to reverse the tobacco epidemic

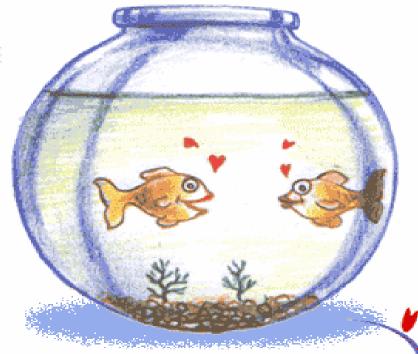


- MONITOR tobacco use and prevention policies
- PRTOECT people from tobacco smoke
- OFFER help to quit tobacco use
  - WARN about the dangers of tobacco
  - ENFORCE bans on tobacco advertising, promotion & sponsorship
  - RAISE taxes on tobacco





## **KISS A NON SMOKER AND FEEL** THE DIFFERENCE!



**Alcohol provokes** the desire, but takes away the performance!!



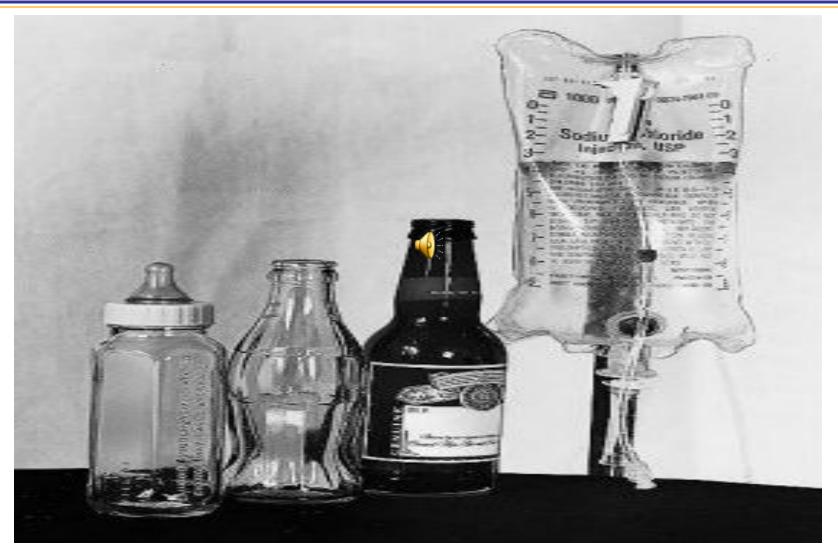


### Responding to alcohol problems

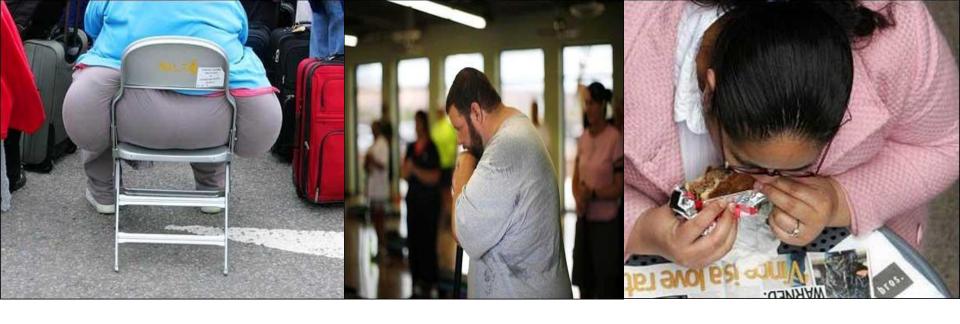
- **Measures for the population-most effective**
- **Education in school is not enough**
- Public information and persuasion-mostly symbolic
- Treatment-worthy and humane-but unlikely to reduce problems of alcohol
- Measures that restrict and channel sales-effective
- Most effective
  - Taxation, licensing of outlets, limits in number of outlets, times and conditions of beverage sales, minimum age limits, drink driving counter measures
- Government monopolies of retail and wholesale market-effective
- Limits on advertising and promotion, warning labels
- Governments possess the powers and policy levers to reduce and prevent alcohol problems



### **Change of bottles in life**







# Decade of the bulge



## **Eating habits**

- Established early in life
- Diet
  - **Composition**
  - **Periodicity**
  - Amount of energy derived
- 'Eat least' category foods are promoted maximum



- Advertising
- **Marketing**
- Culture
- Fashion
- Convenience





## Junk food generation

Average amount of typical snacks, fast food and treats eaten by children between the ages of four and ten in just one year.



### WHO Recommendations

- The policy aim should be to reduce the impact on children of marketing of foods high in saturated fats, trans-fatty acids, free sugars or salt.
  - Effectiveness depends on two elements
    - Reach, frequency and impact (exposure)
    - Content design and execution power)
- Overall policy objective should be to reduce both the exposure of children to, and power of, marketing of foods high in ....
  - Depending on national circumstances and resources
    - Comprehensive approach-restricting all marketing to children
      - **Highest impact**
    - Stepwise approach-either exposure or power



### Controls on advertisement

- EU television without frontiers directive
  - TV adverts shall not cause moral or physical detriments to minors
- Ireland-bans cartoon characters and celebrities to promote foods
- France –mandatory health messages should accompany adverts on TV and radio



Sweden-total ban for adverts aimed at children less than 12 yrs

#### Taxation as a means to change behaviour

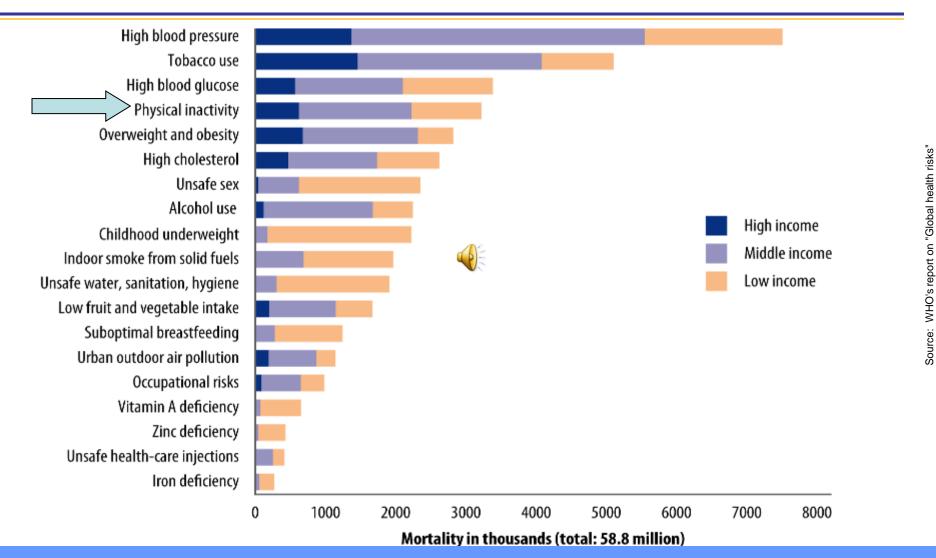
#### The tobacco experience

- education is not enough: regulation, litigation, and legislation are needed too.
- Increasing taxes on cigarettes has been the single most effective strategy in reducing smoking.
- The best chance for success is to impose a penny per ounce Sugar Sweetened Beverages SSB tax, resulting in a rise of a dollar or two in the price of a six pack of sodas or a 2 litre bottle.
  - Most people favour such taxes.
  - ➤ In New York state, projections found that a penny per ounce tax on SSBs could prevent 145 000 cases of adult obesity and 37 000 cases of diabetes in a decade. It could save \$2bn in healthcare costs.

Source: The case of the sugar sweetened beverage tax : Douglas Kamerow, BMJ 2010;341:c3719



# Physical inactivity 4<sup>th</sup> leading risk factor in global mortality



60% of global deaths due to NCDs

# Impact of overweight and obesity at the population level

- Burden attributable to over-weight and obesity globally:
  - >44% of diabetes burden,
  - >23% of ischaemic heart disease burden and
  - >7-41% of certain cancer burdens.
- 43 million children are estimated to be overweight (2010)

Source: WHO, 2009



### Global recommendations on physical activity for health

#### Why?

- Evidence based starting point to promote physical activity + advocacy
- Limited existence of national guidelines in low and middle income countries; different guidelines
- Physical inactivity is an independent risk factor for:
  - Cardio-respiratory health (coroffary heart disease, cardiovascular disease, stroke and hypertension)
  - Metabolic Health (diabetes and obesity)
  - Musculo-skeletal health (bone health, osteoporosis)
  - Cancer (breast and colon cancer)
  - Functional Health and prevention of falls
  - Anxiety, depression, cognitive functions



### Global Physical Activity Recommendations

#### **Intensity of activity**

#### **Domains of activity**

moderate



recreation

and sports





transportation



vigorous





household



work/school

#### Type of activity













## Global recommendations on physical activity for health

- Target audience: national policy makers
- What are these?

Population based physical activity for 3 age groups (5-17 yrs; 18-64 yrs and 65 yrs and older):

- what type (aerobic, strength, flexibility, balance)?
- how often?
- for how long?
- how intense (how hard a person works to do the activity)?
- how much in total?



### Children and youth - aged 5-17 - should:

- Accumulate at least 60 minutes of moderate to vigorous intensity physical activity daily.
- Amounts of physical activity greater than 60 minutes provide additional health benefits.
- Most of the daily physical activity should be aerobic. Vigorous intensity activities should be incorporated, including those that strengthen muscle and bone at least 3 times per week.

## Adults - aged 18-64 - should:

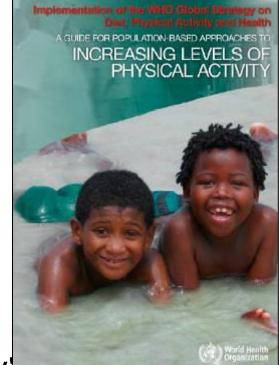
- Do <u>at least 150 minutes</u> of moderate-intensity aerobic physical activity spread throughout the week or do at least 75 minutes of vigorous-intensity aerobic physical activity spread throughout the week or an equivalent combination of moderate-and vigorous-intensity activity.
- Aerobic activity should be performed in bouts of at least 10 minutes.
- For additional health benefits, adults hould increase their moderateintensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate-and vigorous-intensity activity.
- Muscle-strengthening activities should be done involving major muscle groups on 2 or more days a week.

# Older adults - 65 years old & above:

- Older adults, with poor mobility, should perform PA to enhance balance and prevent falls on 3 or more days/ week.
- Muscle-strengthening activities should be done involving major muscle groups on 2 or more days a week.
- When older adults cannot do the recommended amounts of PA due to health conditions, they should be as physically active as their abilities and conditions allow.

### Important elements of successful policies

- **High level political commitment**
- Surveillance, monitoring and evaluation
- Multi-stakeholder support
- Leadership and workforce development
- Integration into national strategies & policies
- **Multiple intervention strategies**
- Stepwise approach to implementation
- **Culturally appropriate**
- Implementation at different levels within "local reality"
- **Dissemination**
- **National Physical Activity Guidelines**



# Supportive policies in promoting PA

#### Possible physical activity promoting interventions include:

- ensuring that walking, cycling and other forms of physical activity are accessible and safe;
- providing local play facilities for children (e.g. building walking trails);
- facilitating transport to work (e.g. cycling and walking) and other physical activity strategies for the working population;
- ensuring that school policies support the provision of opportunities and programmes for physical activity;
- providing schools with safe and appropriate spaces and facilities so that students can spend their time actively;
- providing advice or counsel in primary care; and
- creating social networks that encourage physical activity.



### HEALTH PROMOTION APPROACHES

#### SETTINGS-BASED APPROACH

- Acknowledges the interrelationship between the environment and humans e.g, Healthy cities, villages, schools, markets etc.,

#### POPULATION-BASED APPROACH

- Address needs diverse population groups - children, women, elderly or workers

#### ISSUES-BASED APPROACH

- Targets a wide range of determinants of health or risk factors (diet, smoking, unsafe sex, road safety, patient safety etc.,)



# School Health Programme Theory to practice



WPRO Health Promoting School Framework

- A healthy setting for learning, living and working
- Allows all members of the school community to work together
- Proposed approach is to embed health promotion into school operations through policies, practices, and structures

# Key factors

- Healthy school policies
- 2. School's physical environment
- School's social environment
- 4. Community links
- 5. Action competencies for healthy living
- School health care and promotion services



## Monitoring tool

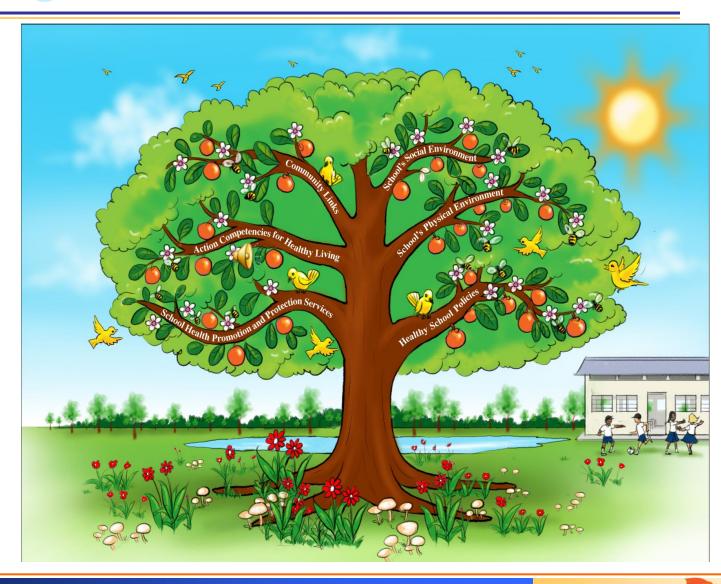
**Meeting of** stakeholders

Review of policies and programmes

**Identify the** gaps

Develop a plan to improve the areas for action

Implement then evaluate after 6 and 12 months





#### **HEALTHY WORK PLACE**

#### **COMMITMENT**

**EMPLOYEE PARTICIPATION** 



Surveillance NCD risk factors Baseline data Current spending on health Sickness absenteeism Environment

**INTERVENTIONS** Tobacco cessation Diet Physical activity Stress reduction Occupational health Noise, Dust Water Sanitation



# **Primary health care**

- A Management of presenting problems
- B -Modification of help-seeking behaviour
- C-Management of continuing problems
- **D- Opportunistic health promotion**

Comprehensive care is a blend of the four interrelated areas. Usual clinician-Area A



# Primary health care

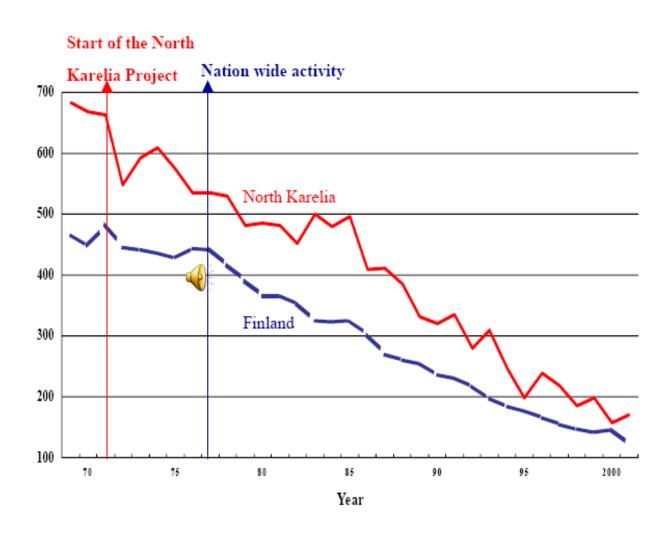
A Green Prescription (GRx) is a health professional's written advice to a patient to be physically active, as part of the patient's health management.



(New Zealand)

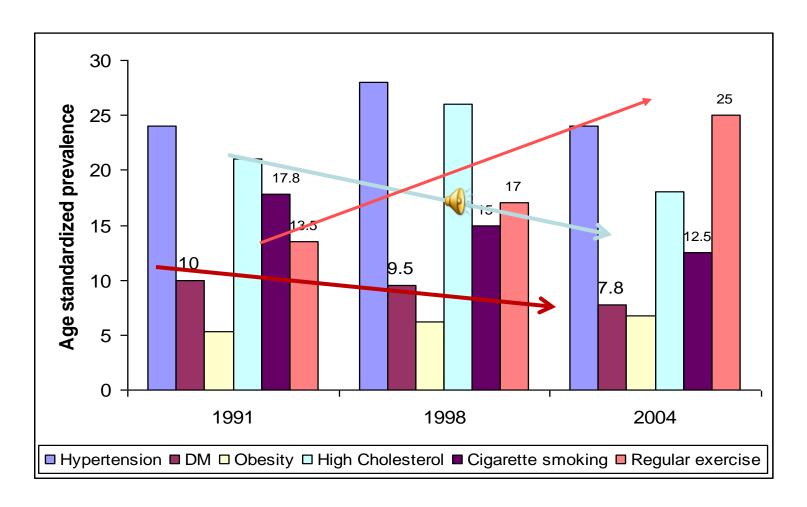
# **Prevention Works**

Age-adjusted mortality rates of coronary heart disease in North Karelia and the whole of Finland among males aged 35-64 years from 1969 to 2001



Mortality per 100 000 population

### Age standardized prevalence of NCDs and risk factors in Singapore 1992-2004





There are no short cuts to any place worth going.....

