

# بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

- الحمد لله رب العالمين والصلاة والسلام على سيدنا محمد الصادق الوعد الأمين ، اللهم أخرجنا من ظلمات الجهل والوهم ، إلى نور المعرفة والعلم..

# **Non-Communicable Diseases**

Chronic degenerative diseases

# Importance of NCD

- Non communicable diseases are the leading cause of functional impairment and death worldwide. These conditions have been the leading cause of death in the United States and other high-income countries over the last fifty years, and they are emerging as a leading cause of death in low-to middle-income countries.

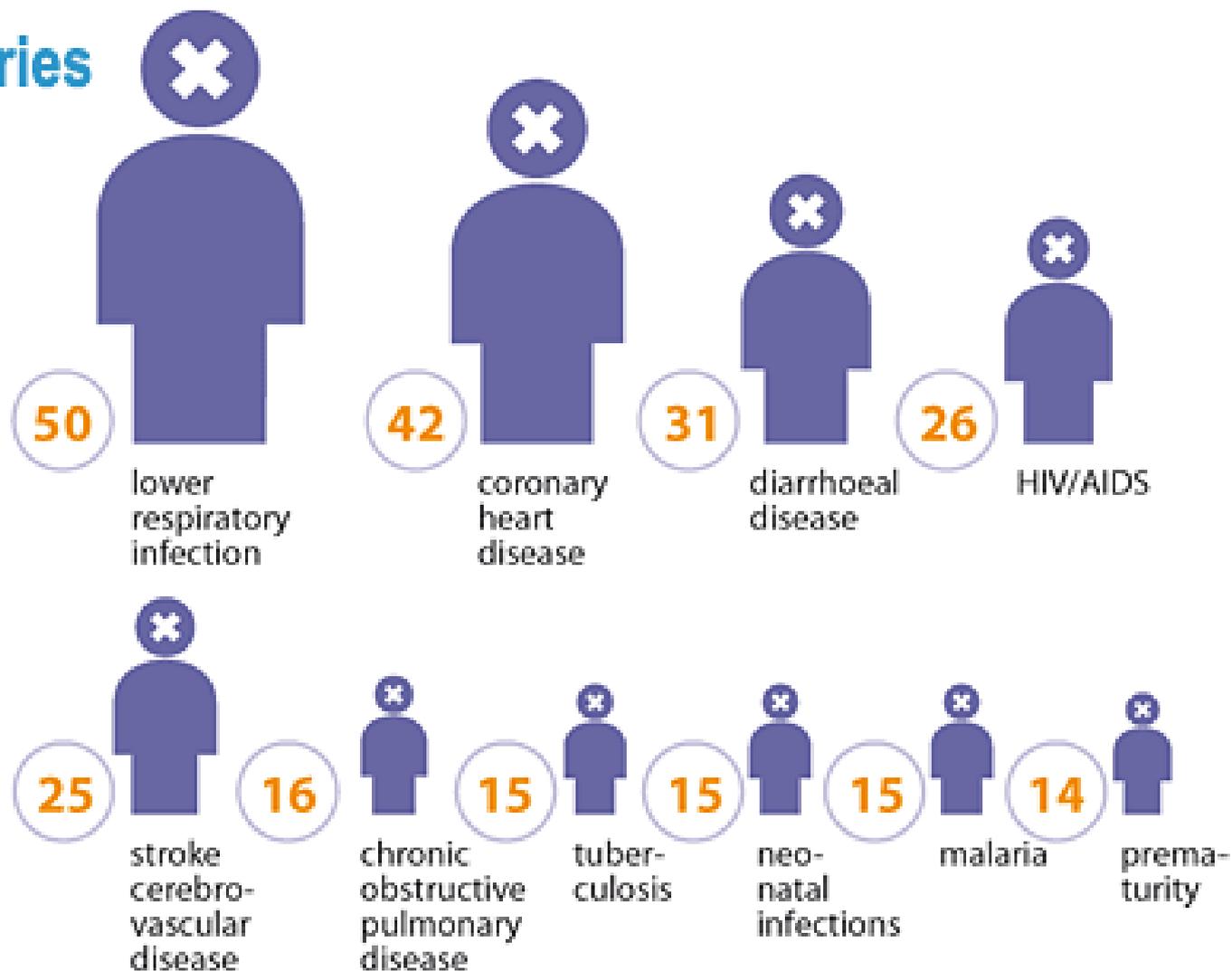
# Deaths across the globe: an overview

- Imagine a diverse international group of 1000 individuals representative of the women, men and children from all over the globe who died in 2004. Of those 1000 people, 138 would have come from high-income countries, 415 from middle-income countries and 447 from low-income countries.

# What would be the top 10 causes of their deaths?

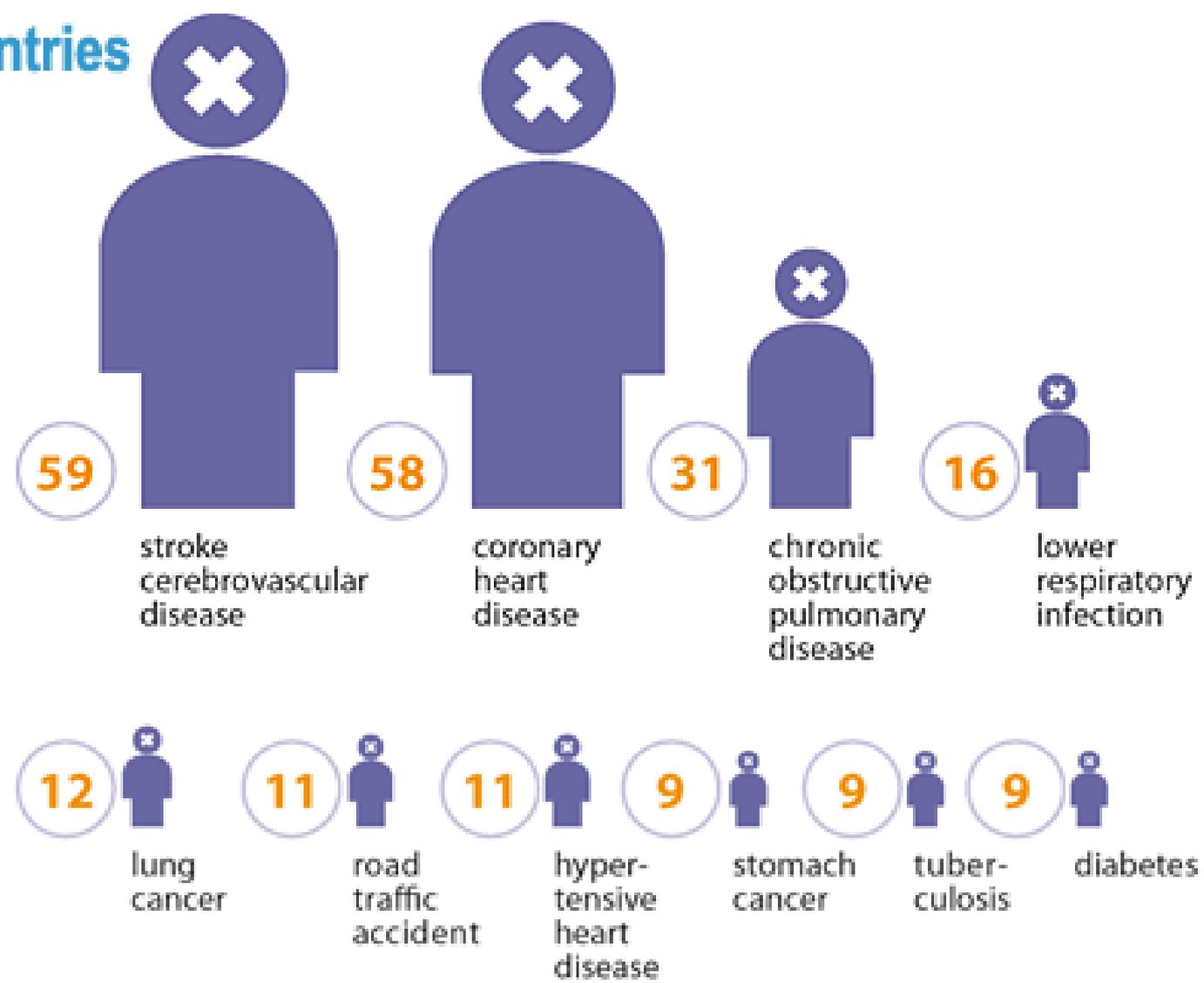
Low-income countries

447 of 1000



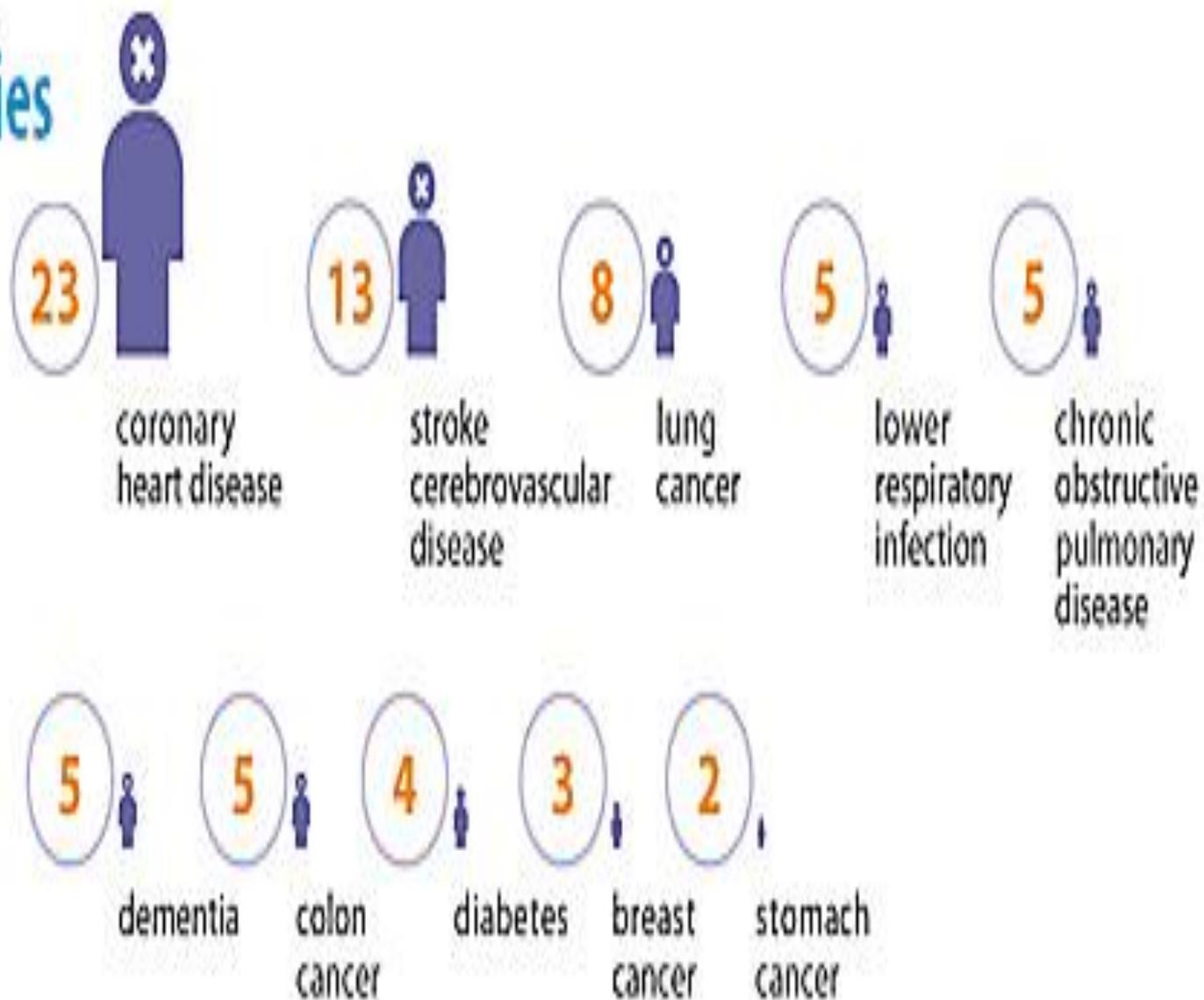
# Middle-income countries

415 of 1000



# High-income countries

138 of 1000



# **The major non communicable diseases are :**

- Cardiovascular Diseases.
- Chronic Obstructive Pulmonary Disease
- Diabetes
- Hypertension
- Cancers
- Accidents in its different types

- Non communicable diseases also include injuries, which have an acute onset, but may be followed by prolonged convalescence and impaired function, as well as chronic mental diseases.

Chronic diseases have been defined as :

Chronic illnesses.

- Non-Communicable.
- Degenerative.

# Characteristics:

- Uncertain etiology.
- multiple risk factors.
- long latency period .
- Prolonged course of illness.
- non- contagious origin.
- functional disability and sometimes incurability .

- **Latency period** is the period between contact of the causative agent with susceptible host to the onset of first sign a symptoms.
- The cause of many chronic diseases remains obscure, but risk factors identified for some of the leading chronic diseases. The most important among these risk factor is Tobacco use especially in COPD .

# Strategies for the prevention

- Approach to prevention of chronic diseases can be considered under three headings :

# 1-Primordial prevention:

- prevention or avoiding the development of risk factors in the community to prevent the disease in the population and as such protects the individuals. This involves the avoidance of risk behaviors.

- prevention of disease occurrence by altering susceptibility of the host or reducing exposure of susceptible persons to the risk factors
- Examples : immunization , good nutrition , health education ,
- counseling, environmental sanitation, purification of water , protection against accidents at work place and seat belts.

- Requires : accurate knowledge of causative agent and process of disease.

## 2-Primary prevention :

- Modifying or reducing the risk factors associated with the development of a disease in individuals with or without the use of interventions, It involves modification of established risk behavior and risk factors with specific interventions to prevent clinically manifest disease

- That is by early detection , screening by examinations altering the course of disease
- Examples : high blood pressure , T.B. Diabetes , Cancer of the breast , Cancer of the cervix colo-rectal cancers, lung cancer etc.

## 3- Secondary prevention :

- Modifying the risk factors in the presence of the manifested disease by changes in lifestyle and/or use of drugs.

## 4- Tertiary Prevention :

- alleviation and limitation of disability  
improvement of quality of life ,  
Rehabilitation and follow up.

- Out of all non-communicable illnesses, cardiovascular diseases stay as the leading cause of morbidity and mortality , especially in developed and rich countries. All over the world, almost 1.5 million adults and elderly died in 1995 from heart disease, stroke or other forms of circulatory disease.

- Cancer is a growing health problem in developing countries, where more than half of the global total of six million deaths occur.

# Chronic Diseases 2:

- Disability or chronicity may be the outcome of many of these chronic diseases and they will not be accounted for by using the mortality indicators as the only indicators for chronic and degenerative diseases :

# Examples :

## 1- Musculo-skeletal problems

- Arthritis and osteoarthritis which may reach in old age a prevalence of 600/1000 persons, and over 300/1000 persons in males.
- Rheumatoid arthritis
- Low back pain
- Foot problems in old age
- Scoliosis in children
- Congenital hip dislocation
- Osteoporosis

## 2- Neurological disorders

- Cerebral palsy
- Mental retardation
- Epilepsy and other seizure disorders
- Headache and migraine
- Multiple sclerosis
- Alzheimer and dementia
- Parkinson disease

## 3- Psychiatric disorders:

- Depression, Compulsive Obsessive Neuroses and Schizophrenia.
- 4- Other disorders – cataract , glaucoma
- 5- Vision and hearing disorders
- 6- Genetic disorders – Down's syndrome, Cystic Fibrosis.