NON-COMMUNICABLE DISEASES

Behaviours that lead to disease often emerge during childhood and adolescence.

The current concerns in nutrition include not only undernutrition and its consequences but many chronic diet related problems. Such disorders may have their origins in fetal and child malnutrition as well as intake of energy dense foods and physical inactivity in later life. The diet related chronic disorders are of global concern and contributing to rising health care costs.

In India, underweight and stunting due to a number of macro and micronutrient deficiencies are common among children, adolescents and pregnant women. These disorders have a cascading effect on diet related non- communicable diseases. The rising epidemic of obesity and insulin resistance, particularly in developing countries is the forerunner of almost all chronic NCD's and calls for an integrated package of interventions.

NON- COMMUNICABLE DISEASES

Non- communicable diseases are not infectious or contagious. NCD may result mainly from lifestyle factors including risk behaviors of individuals and genetics. The important diseases are obesity, diabetes, hypertension, coronary heart diseases, coronary obstructive pulmonary diseases, mental problems, cancer etc.

According to WHO,

Noncommunicable diseases (NCDs), including heart disease, stroke, cancer, diabetes and chronic lung disease, are collectively responsible for almost 70% of all deaths worldwide. Almost three quarters of all NCD deaths, and 82% of the 16 million people who died prematurely, or before reaching 70 years of age, occur in low- and middle-income countries. The rise of NCDs has been driven by primarily four major risk factors: tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets.

It is further said that burden of NCD's is expected to increase 57% by 2020, of which 50% will be due to cardiovascular problems and 79% of all deaths worldwide will be attributable to chronic diseases in developing countries. It is evident that NCD's, particularly cardiovascular diseases, diabetes and hypertension are increasing throughout the country particularly in urban India.

SOME FACTS ABOUT NCD'S *(Acc. To WHO)* -

- NCDs account for 63% of all deaths.

  Noncommunicable diseases (NCDs), primarily cardiovascular diseases, cancers, chronic respiratory diseases and diabetes, are responsible for 63% of all deaths worldwide (36 million out 57 million global deaths).

- 80% of NCDs deaths occur in low- and middle-income countries.
- More than 9 million of all deaths attributed to NCDs occur before the age of 60.
- Around the world, NCDs affect women and men almost equally.
- NCDs are largely preventable.

  Noncommunicable diseases are preventable through effective interventions that tackle shared risk factors, namely: tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol.

- NCDs are not only a health problem but a development challenge as well.

  Noncommunicable diseases force many people into, or entrench them in poverty due to catastrophic expenditures for treatment. They also have a large impact on undercutting productivity.

- Tobacco use kills nearly 6 million people a year.

  By 2020, this number will increase to 7.5 million, accounting for 10% of all deaths.

- Eliminating major risks could prevent most NCDs.

  If the major risk factors for noncommunicable diseases were eliminated, at around three-quarters of heart disease, stroke and type 2 diabetes would be prevented; and 40% of cancer would be prevented.

Who is at risk of such diseases?

People of all age groups, regions and countries are affected by NCDs. These conditions are often associated with older age groups, but evidence shows that 15 million of all deaths attributed to NCDs occur between the ages of 30 and 69 years. Of these "premature" deaths, over 85% are estimated to occur in low- and middle-income countries. Children, adults and the elderly are all vulnerable to the risk factors contributing to NCDs, whether from unhealthy diets, physical inactivity, exposure to tobacco smoke or the harmful use of alcohol.

These diseases are driven by forces that include rapid unplanned urbanization, globalization of unhealthy lifestyles and population ageing. Unhealthy diets and a lack of physical activity may show up in people as raised blood pressure, increased blood glucose, elevated blood lipids and obesity. These are called metabolic risk factors that can lead to cardiovascular disease, the leading NCD in terms of premature deaths.

While non-communicable diseases tend to manifest in adulthood, many have their origins in behaviours adopted during childhood and adolescence. Risk factors for these diseases are often preventable: Appropriate health interventions before, during and after pregnancy, and through childhood and adolescence, can significantly reduce their prevalence.

Risk factors

Modifiable behavioural risk factors

- Modifiable behaviours, such as tobacco use, physical inactivity, unhealthy diet and the harmful use of alcohol, all increase the risk of NCDs.
- Tobacco accounts for over 7.2 million deaths every year (including from the effects of exposure to second-hand smoke), and is projected to increase markedly over the coming years.
- 4.1 million annual deaths have been attributed to excess salt/sodium intake.
- More than half of the 3.3 million annual deaths attributable to alcohol use are from NCDs, including cancer.
- 1.6 million deaths annually can be attributed to insufficient physical activity.

Metabolic risk factors

Metabolic risk factors contribute to four key metabolic changes that increase the risk of NCDs:

- raised blood pressure
- overweight/obesity
- hyperglycaemia (high blood glucose levels) and
- hyperlipidaemia (high levels of fat in the blood).

In terms of attributable deaths, the leading metabolic risk factor globally is elevated blood pressure (to which 19% of global deaths are attributed), followed by overweight and obesity and raised blood glucose.

What are the socioeconomic impacts of NCDs?

NCDs threaten progress towards the 2030 Agenda for Sustainable Development, which includes a target of reducing premature deaths from NCDs by one-third by 2030.

Poverty is closely linked with NCDs. The rapid rise in NCDs is predicted to impede poverty reduction initiatives in low-income countries, particularly by increasing household costs associated with health care. Vulnerable and socially disadvantaged people get sicker and die sooner than people of higher social positions, especially because they are at greater risk of being exposed to harmful products, such as tobacco, or unhealthy dietary practices, and have limited access to health services.

In low-resource settings, health-care costs for NCDs quickly drain household resources. The exorbitant costs of NCDs, including often lengthy and expensive treatment and loss of breadwinners, force millions of people into poverty annually and stifle development.

Prevention and control of NCDs

An important way to control NCDs is to focus on reducing the risk factors associated with these diseases. Low-cost solutions exist for governments and other stakeholders to reduce the common modifiable risk factors. Monitoring progress and trends of NCDs and their risk is important for guiding policy and priorities.

To lessen the impact of NCDs on individuals and society, a comprehensive approach is needed requiring all sectors, including health, finance, transport, education, agriculture, planning and others, to collaborate to reduce the risks associated with NCDs, and promote interventions to prevent and control them.

Investing in better management of NCDs is critical. Management of NCDs includes detecting, screening and treating these diseases, and providing access to palliative care for people in need. High impact essential NCD interventions can be delivered through a primary health care approach to strengthen early detection and timely treatment. Evidence shows such interventions are excellent economic investments because, if provided early to patients, they can reduce the need for more expensive treatment.

Countries with inadequate health insurance coverage are unlikely to provide universal access to essential NCD interventions. NCD management interventions are essential for achieving the global target of a 25% relative reduction in the risk of premature mortality from NCDs by 2025, and the SDG target of a one-third reduction in premature deaths from NCDs by 2030

Main types of non-communicable diseases

- CARDIOVASCULAR DISEASES
- HYPERTENSION
- OBESITY AND OVEREWEIGHT
- DIABETES
- CANCER
- BLOOD LIPIDS (DYSLIPEDAEMIA)
- METABOLIC SYNDROME
- FETAL AND CHILDHOOD MALNUTRITION

CARDIOVASCULAR DISEASES

Compared to all other ethnic groups, south Asians have an excess risk of coronary artery disease. The burden of cardiovascular diseases is 3-4% in rural and 8-10% in urban India. The prevalence of stroke in India is considered to be 203 per 100000 populations above the age of 20 years. WHO estimates the cause specificity mortality rate due to cardiovascular diseases will be the highest by 2020 in India. About 2.6 million Indians are predicted to die due to coronary heart diseases, which constitutes 54.1% of all cardiovascular deaths. Nearly half of these deaths are likely to occur in young and middle -aged individuals. The global burden of diseases (BGD) study has revealed that about 52% of the cardiovascular deaths occur below the age of 70 years in India as compared to 23% in developed countries.

HYPERTENSION

Hypertension is directly responsible for 57% of all stroke deaths and 24% of all coronary heart disease (CHD) deaths in India. The WHO rates hypertension as one of the most important causes of premature death worldwide.

The Global and Regional Burden of Disease and Risk Factors study (2001), in a systematic analysis of population health data for attributable deaths and attributable disease burden, has ranked hypertension in south Asia as second only to child underweight for age.

About 33% urban and 25% rural Indians are hypertensive. Of these, 25% rural and 42% urban Indians are aware of their hypertensive status. Only 25% rural and 38% of urban Indians are being treated for hypertension. One-tenth of rural and one-fifth of urban Indian hypertensive population have their BP under control.