

# Rising Threat of Non Communicable Diseases in Metropolitan Cities

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**Abstract:** Today the entire world is witnessing an era of "Epidemiological Transition" in which the non- communicable and life style related diseases are fast emerging as the leading causes of morbidity and mortality. Within developing countries, this "epidemiological transition" reflects the higher proportion of adults in the population (due to declines in both fertility rates and infant mortality) who, over time, age and become ill from diseases that disproportionately affect adults. In addition, it reflects the rapid rise in behavioral risk factors including smoking and high-sugar, high-fat diets.

All the epidemiological studies do not differentiate among the slum and non slum people and therefore there is a dearth of data related to the non communicable disease burden of the urban poor.

If not intervened now, it is predicted that these diseases will be causing high number of deaths in developing countries.

**Index Terms:** Anaemia, Cardiovascular Diseases, Epidemiological Transition, Life Style Related Diseases, Malnutrition, Morbidity and Mortality Non Communicable Diseases, Public Health Challenges.



## INTRODUCTION

Today the entire world is witnessing an era of "Epidemiological Transition" in which the non-communicable and life style related diseases are

fast emerging as the leading causes of morbidity and mortality.

According to World Health Organization (WHO) estimates, non-communicable diseases accounted for nearly 59% of the 57 million people who died in 2002.[1] In the same year, non-communicable diseases also outstripped both communicable diseases, and injuries, as the leading cause of chronic illness worldwide, accounting for nearly 47% of the 1.49 billion years of healthy life "lost" to illness, as measured in DALYs.[1] If not intervened By 2020, it is predicted that these diseases will be causing seven out of every 10 deaths in developing countries. Many of the non communicable diseases

can be prevented by tackling associated risk factors.[2]

Within developing countries, this "epidemiological transition" reflects the higher proportion of adults in the population (due to declines in both fertility rates and infant mortality) who, over time, age and become ill from diseases that disproportionately affect adults.[3] In addition, it reflects the rapid rise in behavioral risk factors including smoking and high-sugar, high-fat diets.

The "nutrition transition" towards diets that are richer in saturated fats and poorer in complex carbohydrates and dietary fiber, fruit and vegetables and the growth of urban lifestyles involving less physical exertion have set the scene for "lifestyle epidemics" to become the greatest health challenge of the twenty-first century .[4-7]

**The analysis of NFHS data reveals that non communicable diseases like diabetes, asthma,**

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## **arthritis are fast emerging as a major public health challenges in India.**

The analysis also reveals that the poorer and more populated states like West Bengal, will still face a large incidence of communicable diseases. More prosperous states, such as Punjab further along the health transiting will witness sharply increasing incidence of non-communicable diseases especially, in urban areas.[8]

All the epidemiological studies do not differentiate among the slum and non slum people and therefore there is a dearth of data related to the non communicable disease burden of the urban poor.

***So the center piece of this paper is to assess the prevalence of life style related diseases affecting the generation.***

### **RISING SCENARIO**

Non-communicable disease continues to be an important public health problem in India, being responsible for a major proportion of mortality and morbidity. Demographic changes, like changes in the lifestyle along with increased rates of urbanization are the major reasons responsible for the tilt towards the non-communicable diseases.[9]

India although a progressing country, is withstanding loss of citizens due to disease and improper physical functioning. Except the varied communicable diseases which are controlled by vaccination and medications, the non-communicable diseases (NCDs) are being ignored by mass population specifically in villages and extremely modernized metro cities. This is basically due to ignorance and a strive towards

materialistic accumulation among the metro population. There are varied group of conditions as cardiovascular diseases, cancer, mental health problems, diabetes mellitus, chronic respiratory disease, musculoskeletal conditions included in NCDs which are caused due to personal deficiency and internal physiological causes. Certain psychological causes are also a part of NCDs viz. psychosis, depression, insomnia, anxiety, phobia etc. In India, a usual survey recently has given a result of 86% deaths and 77% disease burdened patients due to NCDs.[10]

However, being preventable such disorders are caused due to lack of awareness, general carelessness of health and hygiene, inadequate diet, aggravated alcoholic consumption and smoking in large number of cases among the population.

If we look at the percentage of life expectancy years lost as a result of the disease burden and effectiveness of health care systems, Chinese men would have lost 11.6 years against Indian men losing 12.7 years. The corresponding figures are 13.2 for Chinese women and 17.5 for Indian women. Clearly, an integrated approach is necessary to deal with avoidable mortality and morbidity and preventive steps in public health are needed to bridge the gaps, especially in regard to the Indian women. Taking all the factors into consideration, longevity estimates around 20-25 could be around 70 years, perhaps, without any distinction between men and women. In the matter of disease burden as a whole, it is feasible to attempt to reach standards comparable to china from 2010 onwards. [8]

### **EXISTING SYSTEM**

In India, there is no regular system for collecting data on non-communicable diseases (NCDs) which can be said to be of adequate coverage or quality.

Lack of trained health care workers, primary care providers armed with inadequate knowledge and skills along with ill-defined roles of various health sectors i.e. public, private, and voluntary sectors in providing care have played key hurdles in combating the growing burden of non-communicable diseases. Empowerment of the community through effective health education, use of trained public health personnel along with provision of free health care and social insurance would prove beneficial in effectively controlling the growing prevalence of NCDs.

### AVAILABLE LITERATURE

Although there are some literature relating to the economic impact of NCDs in India yet there is a dreadful need for more methodologically sound research and quality management system to report the economic burden incurred by the general population and the government bodies in context of NCDs.[9] With demographic transition on its way and with the provided evidence that the people in general are at higher risk of acquiring NCDs owing to change in eating habits, decrease in physical activities, high rates of smoking and tobacco use and increased rate of urbanization specially in metro cities, it becomes obligatory to understand and gather information on the economic impact due to non communicable diseases for making further effective and manageable decisions both at government and private division.

### DISCUSSION

The non-communicable diseases in India have been a threat since the past decade and are continually rising per year in the population. Even death and risk conditions are found in juvenile cases like children and teenagers due to high consumption of junk food and poor dietary supplementation. Infant

negligence is also observed in many metro cases because of ambition and career orientation in women. This causes loss of mother milk intake which is required for infant immunity and antibody production for fighting diseases.

Teenagers also have more attraction towards fat diet, junk food and preservative containing frozen foods, ice creams with animal fat etc. which are also the causal agents of NCDs. Obesity in teenagers is a common issue due to lack in physical activity, malnutrition, hypovitaminosis and urbanization. The situation in further years will get aggravated by population rise.

**Aerated drinks** have been known to contain chemicals which cause gene mutation and promote carcinogenic conditions. Many teenagers are prone to party and celebrate using aerated drinks, beer, wine and junk food like pizzas, burgers, chowmein and fries etc. this causes no nutrition intake rather impurify the blood and the monosodium glutamate in various preserved food products causes nervous system disorders, anger, fits, forgetfulness and general weakness of health.

**Malnutrition** related diseases like marasmus, kwashiorkor, rickets are more common among children below poverty line due to poor nutrition supply. Anaemia is also prevalent among children due to worms being intestinal parasites, and lack of iron content in the diet. Worms cause stomach pain in children which is often ignored by thoughts of indigestion or gas problem by the parents. Regular medical check ups of the family members is a must which can detect any small causal agent of disease and prevent further complications. But the Indian population is more biased towards doctor visiting and medications.

**Deworming** in children should be done regularly at least once in 6 months which is usually neglected due to ignorant parents. Intestinal parasites suck the blood and enter the blood brain barrier, causing dementia, epilepsy, coma and death.

Among the aged persons the non-communicable diseases observed via surveys are alzheimer's diseases, dementia, parkinsonism, substance abuse disorders, cancers and arthritis. Often it is found that the tumours are neglected in aged people and actually they become malignant due to which tumorigenesis occurs with complex conditions and it becomes too late for treatment.

Lack of calcium and antioxidants has lead to joint pain, inflammation, oedema, arthritis more in case of females due to menstruation most of the calcium ions are lost. Iron deficiency disorders has prevailed mostly in Indian women causing anaemia due to malnutrition and low intake of folic acid contents. It is very necessary for both aged men and women to perform light exercises, yoga and walking as prescribed by the doctor. But the aged people are more prone to remain still and lazy with lots of rest which otherwise causes accumulation of toxins in the body and severe diseases.

Injuries in accidental cases day by day has lead to blood loss and anaemia as well as trauma, depression and mental abnormalities. Among the teenagers ,drug addiction, tobacco usage and alcohol consumption has increased basically in metros which has harnessed a severe increment in cancer levels, mental disorders, phobia, dementia and nervous breakdown. Also psychological conditions have worsened among children, teenagers, adults as well as old aged people in India. This is due to deteriorating ethics and morality in social environment via movies, cyber – net, pirated videos, ragging and dirty politics in

official working areas. The old aged people are not taken care of and they suffer from isolation, depression and malnutrition leading to death. Materialism has predominated the society and basic spirituality is diminishing day by day among the masses. This is due to excessive fashion vistas, media, and more priority laid towards wealth than health. The general code" health is wealth" has been forgotton by the Indian population and everyone is busy in accumulating fame, popularity and financial status.

Dealing with NCDs is a welcome sign for longevity. However, the average death rate in India has now occurred to be within the age of 65 or less. Avoiding regular medical check ups, costly medical care and negligence is the main reason for high mortality rate at a young age. Usually asthmatic attacks are caused due to utilization of cosmetics, chemical dyes and silicone products. The allergy gets aggravated into asthma which becomes incurable and requires regular medical treatments. Pollution level increase has caused mutations and cancer, tumours and respiratory disorders among the population. Carelessness related to pollution control has aggravated the problem in large ratio and more and more patients with NCDs are recorded year after year. Diabetes when uncontrolled has lead to heart attack, blindness or amputation in aged people. Even juvenile diabetes is a common risk factor for death among the young citizens. NCDs treatment are very costly and hence people are prone to be careless on this aspect. Recent survey has indicated (2012) that mental health conditions are the greatest contributors (49%), followed by cardiovascular and chronic respiratory diseases (28% and 18%) respectively.[11]

Cardiovascular diseases are the worst and biggest causal agents for high mortality rate in India.[12] Coronary artery diseases, myocardial infarction and heart attacks are more common among men than women due to psychological causes like introvertedness, rash behaviour and guilt among men.

Anaemic children are more common due to intake of junk food products more prevalent these days in India like pizzas, burgers, French fries etc. which do not provide nutrition but are the causal agents of obesity and physiological malfunctioning. In 2012 study NCD among adults includes high blood pressure, stroke, high blood glucose, more body weight, cholesterol high level and general fatigue. Hypertension is slightly high in men (33.2%) as compared to women (31.7%).[13]

It is very necessary to improve the health status of Indian population by generating health campaigns, public finance, free health centers, awareness through media etc. disease prevention programmes should be promoted by camps and training centers. Prevention and control of NCDs should be made aware from school education onwards.

## CONCLUSION

Non communicable diseases are additionally more prevalent and severe in developing countries where they are more bound to get double the burden of infective diseases. If it remained like the present trend it is likely that, the health systems in low-and middle-income countries will be unable to support the burden of disease. Prominent causes for heart disease, diabetes, cancer and pulmonary diseases can be prevented but urgent (preventive) actions are needed and efficient, effective and time bound strategies should deal seriously with risk

factors like smoking, alcohol, physical inactivity and western diet.

“Prevention is better than cure” this tag is the most innovative prospect for today’s generation for becoming the strengthened citizens of tomorrow and serves the country with health, wealth and happiness.

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