Chapter – I

Introduction
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1.1 Context:
Access to healthcare is the pre-condition of complete healthy social life. Accordingly, it is the aim of most of the countries in the world. Though, it is not accessible to the people having diverse socio-economic backgrounds due to number of barriers as practical reasons. Mostly in developing countries, including India, declared aim has not yet been achieved. Some of the countries are struggling to reach in context of their laid down commitment and policies. India is sharing a significant number of world population who are residing in rural areas. But the people (377.1 million) are in the urban centres are not insignificant. The Rural India has not got sufficient concerned from the part of the administrators and policy makers, for desired development in health sector. On the contrary, urban India developed rapidly and the Government has compelled to provide or to build up urban centres and its basic facilities for the dwellers. With the existing facility and to find out the scope of alternative sources of livelihood people come to those places for their survival. As the healthcare facilities developed along with other basic facilities people are more relying upon those services. As a part of health facility primary and tertiary care sectors have developed rapidly in the major cities in India. It is true for Metro cities of India like Kolkata.
1.1.1 Identification of the Research Problem:

Health care accessibility to the people of a particular area does not depend on individual and that can be explored in socio, economic and political context of the said area. The determinants of health care accessibility are socially amendable factors. Then identification of determinants of healthcare accessibility of a particular society can lead to a policy suggestion for modification of healthcare access situation which is required for healthier society. Ensuring healthy lives is one of the important goal of Sustainable Development Goals (2015) of United Nations. According to World Health Organization and World Bank (2017) essential health services are not accessible to half of the world’s population and many of them have to bear huge out of pocket health expenses. So, healthcare access is a grievous social problem of contemporary world. In recent years more than half of the world’s population live in urban area (United Nations, 2014) and healthcare access situation in urban setting is complex and different from rural one in many ways. So, the problem of healthcare access in urban setting should be studied separately with appropriate attention. In cities there are three challenges of health hazards emerged to city population (a) increasing infectious disease due to favourable environment for infections, (b) injury by road accidents and violence, (c) increase in non-communicable diseases due to life style like low physical activity, easy available junk diet etc. (WHO, 2010). It is true that all quality services with skilled manpower are concentrated in urban areas including best, super speciality, technologically developed hospitals (Prasad et al., 2014). But statistically it has been found that though there is less availability of health facility in rural area but same indicators of health are more positive in rural than urban area (WHO Global Report on Urban Health, 2016,
WHO/UN-HABITAT Global Report, 2010). It can be said that cities are overburdened even with high concentrated facilities due to rapid increase in population, search of better service in city by the people of suburban area and inequality in access by neighbourhood, socio, economic and political context (WHO/UN-HABITAT Global Report, 2010). In 2015, 54% of the total World’s population was urban population. It is projected that 60% of the total world’s population will be urban population in 2030 and 66% of the same in 2050 (United Nations, 2014). Growth of future urban population will be 90% in low and middle-income countries (WHO Global Report on Urban Health, 2016). In developing countries, 828 Million of slum population of the world live (WHO urban forum report, 2010). Unlike developed countries the urbanization in regions of Asia and Africa happened with urban growth without any required balanced infrastructural development to it. (Martin et al., 2008). Neglect in budgetary allocation to health care service like all other social sectors in developing countries is one of the reasons. For example, Public funding of health sector remains at 1.2 percent of GDP in India 2017-18 budget (unionbudget.gov.in, 2017). Rapid unplanned urbanization in developing countries leads to increase population in cities that disrupts essential public services including basic health care facility (UN Habitat, 2013). All the problem affects not only slum residents but also every one of the population of the cities due to neighbourhood (WHO/UN-HABITAT, 2010). Health services should be accessible to every people resides in city (Braillon, 2014). Solution of this problem is beyond health sector. The healthcare system of a city does not depend on only healthcare sector policies but also on total urban environment and coordination with other social sectors. Intersectional approach with different departments of Government and political will can solve this problem (WHO, 2010). Both low quality social policies and programmes
with unjust economic and social arrangements lead to healthcare access inequities (WHO, 2010). ‘Quality health for all citizens’ process can be started with national and local policies with international attention. For International follow up and monitoring ‘Global Forum on Urbanization and Health’ formed in Kobe, Japan, World Health Day 2010 observed and joint report of WHO and UN Habitat published. On the basis of evidence-based information WHO/UN-HABITAT Global Report, 2010 provides a framework for action which has been developed comparing health situation of cities across countries realising the different socio-political contexts and levels of development. Leaders of local area are in capacity of creating influence over widespread determinants of urban health. So, in respect of urban healthcare access, urban health governance is very important (WHO, 2010). So, countries should be studied individually to identify those particular determinants of healthcare access situation. It is evident from the fact that China and India, top two populous countries in the world, is rapidly urbanizing. China may contribute 292 million and India may contribute 404 million people to their urban population by the year 2050 which is more than that of China (UN, 2014). In India, the annual growth rate of urban population is 3.2 percent per annum during 2001-2011 (Census of India, 2011). As an Asian developing country India is passing across the same phases in healthcare access problems due to rapid urbanization and population explosion. It has been estimated that US$ 27.8 trillion for China and US$ 6.2 trillion for India respectively, expenditure for Non-communicable disease (NCD) during 2012-2030 (Bloom et al., 2013). In India, the changing lifestyle due to urbanization leads to two fatal NCDs namely cardio vascular disease and cancer which causes mostly death in urban areas (Registrar General, India, 2009). In case of communicable diseases India ranked highest regarding burden of TB in the world. In India
Mumbai city recorded 2951 MDR-TB cases in 2014 which is above 12% of the cases of the country (Maharashtra State Tuberculosis Office, 2014). Reported road injury per 1 lakh inhabitants in three megacities of India as follows: Kolkata 9.4, Mumbai 3.2, New Delhi 9.1 (Welle et al. 2015). To know the healthcare access situation in urban India mega-cities should be studied as megacities are more affected than other urban areas. Identification of determinants of healthcare access situation of one of the mega city, Kolkata has been performed in this research. The problem is discussed in this study namely the problem of healthcare accessibility to the people in consequence of rapid urbanization.

1.2 Healthcare Scenario of Urban India - An Overview:

Urban unit or town defined by Census of India 2011 as ‘all the places with a municipality, corporation, cantonment board or notified town area committee, etc. (known as Statutory Town) and all other places which satisfied the following criteria (known as Census Town): A minimum population of 5,000; at least 75 per cent of the male main workers engaged in non-agricultural pursuits; and a density of population of at least 400 per sq. km’. There are five types of town: Class I town which have more than one Lakh population called city. City with ten million or above people called as ‘Mega City’ (Chandramouli, 2011). According to 2011 Census of India, India has 377.1 Million urban populations which constitute 31.2% of total population. Increase in total urban areas is 91.0% in 2011 which is greater than increase in rural areas which is of 90.5%. As per urban UN projection by 2050, 50% people will live in urban India (UN, 2014). All India population growing at 2%, urban population at 2.75%, large cities population growing 4%, slum population
growing 5-6% which is faster than urban population. It means urban slum population is increasing.

In urban area two types of population are found: slum population and non-slum population. UN-HABITAT defines a slum household ‘as a group of individuals living under the same roof in an urban area who lack one or more of the following: 1. Durable housing of a permanent nature that protects against extreme climate conditions. 2. Sufficient living space which means not more than three people sharing the same room. 3. Easy access to safe water in sufficient amounts at an affordable price. 4. Access to adequate sanitation in the form of a private or public toilet shared by a reasonable number of people. 5. Security of tenure that prevents forced evictions’(UN-HABITAT.2008). Definition of slum according to Census of India ‘Under Section-3 of the Slum Area Improvement and Clearance Act, 1956, slums have been defined as mainly those residential areas where dwellings are in any respect unfit for human habitation by reasons of dilapidation, over-crowding, faulty arrangements and designs of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light, sanitation facilities or any combination of these factors which are detrimental to safety, health and morals.’ Types of slums are ‘Notified’, ‘Recognized’ and ‘Identified’ (Primary Census Abstract for Slum, 2011). In India, in the year 2001, 18.3% slum population of total population was in India and in 2011, 17.4% slum population of total population was in India (Primary Census Abstract for Slum, 2011). It means 6,54,94,604 people in India lives in slums. The decadal growth of slums in India from 2001-2011 is 25.1%. According to the estimates of United Nations Economic & Social Commission for Asia and the Pacific (UNESCAP), 29.4% of India’s urban population lived in slums in 2009. The Slum population face
multiple health challenges like lack of sanitation, lack of proper drinking water, proper drainage, lack of solid fuel, air pollution, communicable disease, non-communicable disease, out of pocket expenditure, lack of quality treatment, road accident and violence.

Another warning situation is that according to the Planning commission of India (2016) 13.7% people of urban India belong to the level below poverty line. In order to overcome these problems Government of India should take social developmental measure for ‘quality life’ of the inhabitants (Sandhu et al. 2001). Quality of Life may be defined as ‘an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment’ (WHO, 1997). Amartya Sen has told that (Nussbaum and Sen,1993) there are three basic aspects of human existence namely health, food and education. The rewards of development should be equally distributed by ensuring both equity and quality of life (UN Habitat, 2013).

Universalization of good sanitation, drainage system and availability of safe drinking water is a necessary requirement to ensure betterment of community health and hygiene. In the year 1991, 77.9% urban area of India was covered under safe drinking water, 85.5% in 2001 and 91.4% in 2011. There are various sources of drinking water, tap water like treated source (62.0%), untreated source (8.6%), covered well (1.7%), uncovered
well (4.5%) and hand pump 20.8%. Drinking water facility in urban India is developed but yet to achieve global rate which is very high 96.1%. According to 69th round report of NSSO (2014) the household having improved drinking water facility representing both slum and non-slum area are 941 and 957 per thousand respectively. It is revealed that in urban India, 762 and 957 households per thousand have bathrooms within the premises in 2008-09 and 2012 respectively. In case of sanitation there are four types of latrines namely water closest (72.6%), pit latrine (7.1%), other latrines (1.7%), even no latrine is 18.6%. Sanitation facility of urban India lagging behind global rate 79.4% (UNESCAP, 2014). According to 69th round report of NSSO (2014) the household having improved sanitation facility representing both slum and non-slum area are 966 and 984 per thousand respectively. In 2001, 77.87% household and in 2011, 81.77% household have drainage facility in urban India. Drainage facility is improving but yet to achieve its goal. Maintaining environmental balance and overall cleanliness of the household’s surroundings is also very important matter for health. There are three main aspects of this matter namely drainage arrangement (825 per thousand Household), garbage disposal system (758 per thousand Household) and availability of direct opening to roads (50 per thousand Households) (NSSO KI [69/1.2], 2013). Estimates of 69th Round Report by National Sample Survey (NSS) in 2013 indicate that 97.9% households’ in urban India had access to electricity.

For integrated development of urban India some policies have been taken by Government of India (GoI) as follows: (i) Swachh Bharat Mission from 2nd October 2014, (ii) Smart City Mission, 25th June 2015, for 100 cities and (iii) The Atal Mission for Rejuvenation and Urban Transformation
(AMRUT) from 25th June 2015 for 500 cities, (iv) National Heritage City Development and Augmentation Yojana (HRIDAY) Scheme from January 2015 for heritage cities. All the Policy’s objective is to provide and develop basic infrastructure to the cities (Hand book of Urban Statistics, 2016).

1.2.1 Health Situation in India:

To know the health situation of India a comprehensive report ‘India: Health of the Nation’s States-the India State-Level Disease Burden Initiative’ by Indian Council of Medical Research, Public Health Foundation of India, Institute for Health Metrics and Evaluation is very useful with its current finding of 2017. The findings are as follows: In 1990, life expectancy at birth in India was 58.3 years for males and 59.7 years for females. By 2016, life expectancy at birth increased to 66.9 years for males and 70.3 years for females. The Global rate is 69.1 for males, 73.8 For females (World Health statistics, 2017). India has made substantial progress in improving the life expectancy at birth but lagging behind global rate. While life expectancy is a useful simple measure of a country’s or state’s health status, it does not reflect the variations and nuances in health loss throughout a person’s lifespan, the understanding of which is necessary to minimize health loss at the population level. It can be measured with the instrument used by Global Burden of Disease Study which is a systematic, scientific effort to quantify the comparative magnitude of health loss due to diseases, injuries, and risk factors by age, sex, and geographies for specific points in time.
By rapid social and economic development India is going through an epidemiological transition which are reflected in the contribution of main disease-groups to the entire disease burden from 1990 to 2016: 48% to 75% for non-communicable diseases (stroke, diabetes, cancer etc.), 14% to 43% for infectious (TB, HIV, Malaria, Diarrhoea etc.) and associated diseases (maternal, neo natal and nutritional), and 9% to 14% for injuries (Road accident, self-harm). Communicable Diseases are dropping but still high in average and non-communicable diseases and injuries are increasing rapidly. Though the rate of different types of burden of disease are widely varies with the different States, this is the average trend of India. Therefore, India is facing two aspects of health problem. India had 33% of the total Disease Adjusted Life Years (DALY) from Communicable, Maternal, Neo-natal and Nutritional Diseases (CMNND), 55% from Non-Communicable Diseases, and 12% from injuries in 2016. In 1990, this was 61%, 30%, and 9% of DALYs, respectively. DALY is years lost to premature death and suffering which is a summary measure of health loss burden caused by different conditions with two components namely, Years of Life Lost (YLL) due to premature mortality and Years of Life Disabled (YLD) due to disease or injury. Communicable and Maternal, Nutritional disease includes HIV, tuberculosis, diarrhoea, low respiratory disease, neglected tropical disease, malaria, maternal disorder, neo natal disorder, nutritional deficiencies etc. Non-communicable disease (NCD) includes cancer, cardio vascular disease, chronic respiratory disease; cirrhosis of liver, digestive diseases, neurological disorder, mental and substance use disorder, endocrine disease, musculoskeletal disorder etc., injury includes transport injury, unintentional injury, suicide, interpersonal violence etc. Among communicable diseases diarrhoea caused highest proportion of death.
Among NCDs cardio-vascular disease or chronic respiratory disease is leading to cause of death.

Several factors are responsible for change in disease burden over a period of time in India include: (i) Diseases related to ageing of the population due to greater life expectancy, (ii) The rate of occurrence of diseases or injuries depends upon changes in exposure to risk factors, and (iii) Health care progress and development decrease the possibility of premature mortality or disability.

There are several risk factors like child and maternal malnutrition, air pollution, dietary risk, high systolic blood pressure, high fasting plasma glucose, tobacco use, unsafe water and sanitation, hand washing, high total cholesterol, high body mass index, occupational risk, impaired kidney function, unsafe sex, other environmental risks, low physical activity, low bone mineral density, sexual abuse and violence etc. Amidst these in India child and maternal mal-nutrition leading risk factor causes 14.6% of the India’s total DALY followed by Air pollution (out door and household both)11.2%of total DALY and the next is dietary risk. On the contrary unsafe water and sanitation was the leading cause in the year 1990. So, from this report a clear picture of the changing pattern of disease burden in India has been portrayed (ICMR, PHFI & IHME, 2017).

According to World Health Statistics (2015), ‘Age-standardized mortality’ rates by cause (per Lakh population)in 2012 in India are communicable diseases-253 (South Asian countries--232 & Global--178), non-communicable diseases – 682 (South Asian Countries --656 &
global--539) and injury--116 (South Asian--99 & global--73) and YLL is 32584 per Lakh population (South Asian--29553 & global--28311). The situation of India is worse than that of global, even worse than South Asian Countries in case of disease burden.

1.2.2 Health Policies of India:

National Urban Health Mission has been started from 2013 as sub policy of National Health Mission. Special focus has been given on health of urban India in this mission. The goals of this mission are ‘Equitable access to available health facilities by rationalizing and strengthening of the existing capacity of health delivery for improving the health status of the urban poor’. Its target population was mainly urban poor of listed and unlisted slums and pavement dwellers; homeless persons etc. The Budget allocation for this mission was approximately is 30000 Crores for 12th Plan. In this mission the financing share of Central and State Governments was 75% and 25% respectively. Out of 25% of State share, 15 % would be borne by the State and 10% by the respective local bodies. Government of India had collaborated with the local bodies to implement it. The objective of this policy is to tackle following problems of urban area: (a) social exclusion, (b) lack of information, (c) expensive private healthcare facilities, (d) un-friendly environment in public hospitals. Its special features are universal health coverage, prioritizing most vulnerable and ensuring quality of healthcare services (NUHM, 2013).

In the first National Health Policy of 1983 there was no separate provision for urban health. In the second National Health Policy of 2002, there was a starting of focus on urban health due to rapid urban growth.
In this policy three tier urban health care structure was recommended and this policy accepted the role of private sector in the healthcare activities.

National Health Policy 2017 of India has come into force with the objectives of sustainable development goals. This policy focused on urban healthcare with much attention. It has given special focus on poor population like NUHM. Utilization of AYUSH (Ayurvedic, Yoga, Unani, Siddha, Homoeopathy) personnel for urban poor’s treatment is a new feature in this policy. This policy encouraged ‘sustainable model of partnership’ with ‘for profit’ and ‘not for profit’ private stake holders. Another important focus of this policy is ‘achieving convergence among the wider determinants of health like air pollution, better solid waste management, water quality, occupational safety, road safety, housing, vector control, and reduction of violence and urban stress’. This policy promotes changed health seeking behaviour with better awareness through community-based participation. Early detection of diseases and better secondary prevention is required for healthy urban population (National Health Policy, 2017).

The patients are considered as health consumers also who have used a health service in the past or who could potentially use the service in future. Patients treated in private hospitals with charge and patients treated free of charge at government hospitals both includes in the definition of 'consumers'. these consumers can file cases in the consumer forums against hospitals for negligence, country's apex consumer forum National Consumer Dispute Redressal Commission (NCDRC) has said (News Paper, 3rd Feb, 2018).
1.3 Rationale behind the selection of Kolkata City:

India has three megacities namely Greater Mumbai, Delhi and Kolkata. For this study Kolkata city has been chosen with the following reasons:

1.a) According to Census of India, 2011, density of population per square kilometre in the cities namely Kolkata, Mumbai, New Delhi are 24306, 19652, 4057 people respectively. So, among the three cities Kolkata has highest density of population per square kilometre.

b) In the category of Below Poverty Line (BPL) population, Kolkata has 14.66%, New Delhi has 9.84%, Mumbai has 9.12%. So, Kolkata has highest BPL population among the three cities. (Planning Commission of India, 2016).

c) The city of Kolkata has 31% slum population while Delhi has 14.66% and Greater Mumbai has 41.84%. Kolkata has higher rate of slum population than that of India (21%) (Census of India, 2011).

d) It has been revealed on the basis of Urban Health Index developed by WHO, 2014 that the range of scores for Kolkata is 0.369 to 0.509, and 0.510 to 0.709 for Mumbai and New Delhi (Stauber. C. et al. ,2016).

Therefore, the situation in Kolkata is unfavourable compared to others mega cities in India. This is the first reason to study health access situation of Kolkata.

2. The second reason is Delhi and Mumbai have lots of studies on urban health but Kolkata lacks comprehensive work. A study list on Delhi and Mumbai have been incorporated in literature review.

3. Thirdly, there is massive policy reform in West Bengal regarding health took place in last years. So, there is need to study of latest health accessibility situation in Kolkata city.
1.3.1 Overview of Kolkata City:

Kolkata city is situated in eastern side of India. It is capital city of West Bengal State. Kolkata is one of the six Metropolitan cities and three Mega cities of India. Kolkata is only one fully urbanized District of West Bengal with 100% urban population.

Geographical Location and Administrative Division: The district of Kolkata lies between 22°37’ and 22°30’ North latitude and 88°23’ and 88°18’ East longitude. Altitude: 9m (30’). From sea level it is 6.4 meters above (20 ft) (KMC, 2017). Boundary of Kolkata: South-- South 24 Parganas, West--Howrah & Hooghly river, North--North 24 Parganas, East--North 24 Parganas (Census of India, 2011). Kolkata is 185 sq. km. within Corporation Area which is 0.22% of total geographical area of State (88752 KM²) (KMC, 2017 and National Portal of India, 2017). Kolkata Municipal Corporation is the local authority. Kolkata consists of 141 wards under XIV Borough within the area of Kolkata Municipal Corporation.
Map-1: Ward Map of Kolkata City

Transportation: Kolkata city is well communicated by roads, railways and airways. Tram, metro rail, bus, taxi, auto etc. are well available for public conveyance within city. There is a domestic and International Air Port named Netaji Subhas Chandra Bose International Air Port. There are four terminal Railway stations Howrah, Shalimar, Sealdah and Kolkata.
by which suburban, other districts and other states are connected. Two main bus stands Esplanade and Babughat connect Kolkata with other states like Orissa, Jharkhand, Bihar by bus.

Demographic Profile: According to Census of India, 2011 Kolkata shares 3.6% of total urban area of the State but it shares total population 44,96,694 which is 5% of State’s total population and 15% of State urban population and total households in Kolkata are 10,07,365. Slum population in Kolkata constitute 31% of its total population. The population density of Kolkata is 24,306 per square Kilometre which is far high compared to West Bengal average 1028. 86.3% population is literate in Kolkata. Other Workers constitute the main work force i.e. 94.6 percent of Total Workers. Other workers mean except agricultural and household industry workers.

Large share of urban population with an accountable size of slum population, high population density, 14.66 % of BPL population and population with wide variation in educational, occupational background turn the issue of healthcare access into a critical element that might reflects quality of life in Kolkata city.

1.3.2 Health Situation of Kolkata:
1.3.2.1 Background of Health Situation:

The health situation of Kolkata can be depicted on the basis of studies and secondary sources. First of all, in context of availability of drinking water, sufficient amount of good quality of drinking water is not supplied here. Other sources of drinking water are contaminated with heavy metals like arsenic, lead etc. which lead to massive number of water borne
diseases (Singh, Haque & Grover, 2015). Along with this there is tremendous indoor and outdoor air pollution in Kolkata. Particulate matter (PM$_{2.5}$) count again rose above 300 g/m$^3$ in a morning of January 2018. It is revealed in a study of Calcutta University with a group of environmentalists (Newspaper, 31 January 2018). A joint study was conducted by the British Deputy High Commission, UKID and Kolkata Municipal Corporation and it was found that the Kolkata city ranked fifth position among major cities in the country in terms of presence of Green House Gas in air and the second position in terms of per capita CO$_2$ emission (Newspaper, 3 January 2017). In the world the Kolkata has highest number of lung cancer cases because of highly polluted air from the increasing the numbers of vehicles which is responsible for 50% of air pollution, less greenery. The lung cancer is most prevalent among road side hawkers, traffic policemen, taxi and auto drivers. Another significant health problem is Cystitis and other bladder disease among women of Kolkata is higher than elsewhere in India (Health in Kolkata, 2018).

1.3.2.2 Disease Profile:

Reported prevalence of Morbidity in Kolkata according to District Health and Family Survey consists of Injury 1.3%, Acute illness 15.6% and Chronic illness 15.5%. This is the Reported Prevalence of Chronic Illness during last one year as follows: Disease of respiratory system is 7.4%, Disease of cardiovascular system is 7.8% and Persons suffering from tuberculosis is 0.4% (DHFS-4, 2013).

According to Health on March 2015-16, there are two types of diseases (i) communicable diseases, (ii) non-communicable diseases.
Communicable disease on which data has been received are as follows:
Vector borne disease, water borne disease, TB, leprosy and HIV.

Vector borne diseases: West Bengal has been reported 35236 Positive cases of Malaria, whereas the same has been reported for Kolkata is 20673 in 2015. West Bengal has recorded 22865 cases of dengue, among them 45 found dead (as on November 2016). In Kolkata 1063 cases of dengue has been recorded and among them 4 cases found dead during same period. In case of Japanese encephalitis in 2016, 196 cases have been found in West Bengal and no case has been found in Kolkata. In case of Chikungunya 160 cases found confirmed in West Bengal and 64 cases found confirmed in Kolkata in the year 2016.

In case of water borne- diseases it is found that 19,94,636 cases of diarrhoea found in West Bengal and death occurred 193, in case of Kolkata 49 death cases have been recorded out of 23,066 cases in the year 2016.

The number of registered persons for tuberculosis treatment is 4,965 (2015) in Kolkata.

There are 8,170 Leprosy patients recoded as on 31/03/2016 in West Bengal the same has been recorded for Kolkata is 923.

HIV- Sero positive cases has been detected by ICTC (Gen. client + pregnant) during 2015-16 are 2,525.

The pattern of Non-communicable diseases are as follows:

It is reported that there are 24,287 no of patients suffering from Eye-glaucoma, 22,042 patients from diabetic retina problem, 4,700 patients
from cornea blindness, 5,102 patients from childhood blindness and 56,297 patients from Low vision.

The District Level Household and Facility survey-4 (2012-13) revealed that in Kolkata 56.2% people with anaemia, 38.6% people with high blood sugar level, 44.2 % people with hypertension, 7.4% people with respiratory problem and 7.8% people with cardio vascular problem. Life expectancy at birth rate of Kolkata is 63.9% which is below the rate of India (64.7%) in the year of 2007 (Burdett, 2007).

1.3.2.3 Scope of Healthcare Delivery System of Kolkata:

In Kolkata on the basis of authority there are two types of healthcare facility exist namely public and private. Private facilities are sub divided as for profit and not for profit. Public health care facility here includes hospitals by Department of Health and Family Welfare, health facilities by Kolkata Municipal Corporation, Health centres by National Urban Mission, Railway hospital for railway employees, command hospitals for employees, ESI hospitals for insured employee of unorganised sectors, Central Government Health Scheme dispensaries for central Government Employees.

Private for-profit health facility includes Private hospitals, research centres, nursing home, private chamber, polyclinics. Private non-profit health facility comprised with NGO organised hospitals, dispensary.

Indian indigenous alternative medicine Ayurvedic, Yoga, Unani, siddha and homoeopathy (Ayush) treatment are available in both some chosen public and Private facility.
The total system of treatment can be divided as Primary care, secondary care and tertiary care.

Primary care in Kolkata can be availed through both public and private healthcare facility. There are immense number of private chambers, polyclinics and private hospitals in formal sector. In informal sector there are many quack doctors are also available for cheap and speedy first aid. The public primary health care facility is available with Kolkata Municipal Corporation (KMC) Health Centres, dispensaries. In Kolkata by KMC there are 23 dispensaries, 141 Ward Health Clinic, 14 Malaria clinic and 98 centres for immunization of tetanus, whooping cough, tuberculosis, measles and hepatitis B. Under NUHM there are 35 health centres collaborating with KMC health clinics. Some health centres are renovated and some are new construction. The CGHS dispensaries for central govt. employees.

For secondary healthcare there are several nursing homes, private hospitals, NGO organised hospitals and public hospitals are available. According to District Hand Book, 2008, 126 hospitals both public and private are in Kolkata.

Among these some hospitals are tertiary care hospitals. In Kolkata there are 8 Government tertiary care hospitals namely SSKM, Calcutta Medical College, NRS MC and hospital, Chittaranjan National MC and Hospital, R.G. Kar MC and Hospital, RN Ahmed Dental College, Calcutta Homoeopathic Medical College, Institute of Post Graduate Ayurvedic Education and Research are available. There are some private tertiary
care hospitals like Tata Cancer Institute, Apollo group hospital, RN Tagore Heart Research Institute etc.

1.3.3 Health Policy of the State of West Bengal:

The ‘Health’ is in the concurrent list of Indian Constitution. It is not mandatory to follow the National Policy of the GoI by the provinces. But, generally follow the policy of the Government of India along with their own policies (if any). Following National Health Policy, 2002 several steps like convergence with other departments namely the department of Women and Child welfare, Public Health Engineering etc., decentralization, financial management, organization and human resource development has been taken to reform the health system by Department of Health and Family welfare, Government of West Bengal since 2004 (Health Sector Reforms, 2008, NHP-2002). The Government of India starts National Urban Health Mission in 2014, whereas Government of West Bengal considered it even in 2008 and developed a urban health strategy for the urban people, specific concentration on urban poor. The Department of Health and Family Welfare collaborated with the Department of Urban Development and Municipal Affairs and various agencies like State Urban Development Agency (SUDA) to implement this strategy. The strategies are as follows: (i) Universal Coverage to the entire population focusing on poor, (ii) Strengthening service delivery through a uniform 3-tier service delivery model that are Honorary Health Worker, Sub-Centre and referral hospitals, (iii) Strengthening institutional arrangements and inter-departmental convergence, (iv) Strengthening Monitoring and Evaluation (The Urban Health Strategy, 2008). The Government of West Bengal has been following National Urban Health Mission since the inception of this mission to strengthen its
urban health system. All the responsibility of this mission rests on the Kolkata Municipal Corporation (KMC) for Kolkata city. All the Ward Health Units under KMC have been utilized to enable the function of NUHM (PIP NUHM, 2014). In the last few years, KMC have constructed 26 numbers of Ward Health Units which are already functional. The total project cost is Rupees 7 crore 16 lakh which has spent out of Multi Sectoral Development (MSDP) fund. The KMC allocated Rs. 128.11 crores for the development and maintenance of its Health Department for the financial year 2014-15 (Chatterjee, 2014). The Public Private Partnership (PPP) Model of Dialysis and Fair Price shop system declared by Government of India in its Budget of 2016, have already been running in West Bengal from 2012 (Jaitley, 2016). In Kolkata there are seven fair price shops attached to five Medical College and Hospitals with R N Ahmed dental College and Lady Dufferin Hospital (Health on March, 2017). In three public hospitals in Kolkata namely Kolkata Medical college and Hospital, IDGB Hospital and Chittaranjan National Medical College Hospital PPP Dialysis is available (Health on March, 2017). In case of Rastriya Swatha Bima Yojna (RSBY), West Bengal Government is progressing speedily. In West Bengal, as on 15/03/2017, 738 Private hospitals and 452 Government hospitals empanelled under this scheme to provide service. Among these, 37 private hospitals and 16 public hospitals are situated Kolkata. It is found out that 1,22,173 households are empanelled under this scheme up to 2016 Within Kolkata. For this development, State Nodal Agency (SNA) was invited by the World Bank to present the module in Berlin, Germany (Health on March, 2017). The Government of West Bengal formed eleven-member advisory committee to accomplish its medical education system for development of better human resource of health (Newspaper, 17th December 2016). The West Bengal Clinical
Establishments (Registration, Regulation and Transparency) Act 2017 has been come into force to control private healthcare system of West Bengal in protection of common people from unfair treatment. In 2017 a Health Regulatory Commission has been established to speedy redress and resolve the grievances of any issues related to health services delivered (Newspaper, 5th March 2017). And even there is a provision of monetary penalty for any discrepancies in health service delivery in West Bengal Right to Public Services Act, 2013. Many fraud doctors have been arrested and proper actions have been taken against them by the Government to maintain the delivery of quality treatment (Newspaper, 3rd August 2017). It is remarkable that Government of West Bengal passes an order in 2014 mentioning the withdrawal of user charges for all secondary and primary hospitals of the State even tertiary care hospitals including Medical Colleges and teaching hospitals under Department of Health and Family Welfare, with free diagnostic, pathology, therapeutic, surgery and bed for equity and universal access of healthcare services (G.O.No.HF/O/MS/984/W-10/2001 Dated.22/10/2014). In the performance of Health indicators (2015-16) within India West Bengal State stepped down to 10th rank from 8th. The State increases its score 0.38% in comparison with previous year but development is not satisfactory. (Ministry of Health & Family welfare, World Bank, Niti Aayog,2018).

1.4 Why Primary Study?

There are no current data regarding the indicators of healthcare access available for Kolkata. So, primary study is required to identify the influence of the determinant of health access among the people of Kolkata.
1.5 Related Concepts of the Study:

1.5.1 Concept of Health:

Health is a universal phenomenon and basis of survival. Health has changed over the centuries from an individual concern to worldwide social goal encompassing the concept of quality of life in a complete manner. From time to time different professional groups defined it in various ways. For example, The biomedical scientist, sociologist, health administrator, ecologist, psychologist etc. The concept of health can be represented as follows:

i) Biomedical concept: health is defined as the complete absence of disease. The disease is conceived as a pathological state of the body whereby it affects the structure and functioning of the body. The disease is revealed through certain signs and symptoms associated with it which is required to be treated by medicines approaching individually in technical way of medical system for solution. This approach facilitated the growth of the contemporary medical system which is based on mechanistic and an individualistic model where technological solution are offered as a solution to illness. Bio-medical concept is inadequate to explain malnutrition, drug abuse etc.

ii) Ecological concept: This is the concept of relationship between individual and its living atmosphere where any imbalance observed that is disease and finding solution for rebalancing is health seeking. (Costanza, Norton & Haskell, 1992)

iii) Psychological concept: In this concept the healthy body is explored in relation to healthy mind (Akram & Advani, 2007). It focuses on mental health. Here emerges the concept of Psycho-somatic. People’s insight of
their own situation of health influences their definition of health (Cox et al., 1987).

iv) Socio-cultural concept: This approach falls within the domain of social anthropology which analyses health as social cultural context that evolves over a period of time. This concept arises through consistent interaction at individual and collective levels. Health and illness are defined as ‘social trajectories based on narrations which are contested and reorganized’ (Smelser & Baltes, 2001).

v) Holistic concept: Health is multi-dimensional construct involving state of complete physical, mental and social well-being and not mere absence of disease (WHO, 1948).

In the words of Burthet, the Secretary General of the International Union for Health Education, Paris, “we no longer ought to define health only in terms of sickness, but rather in relation to the harmonious developments of every individual’s personality” (Goel and Goel, 2005).

Now health is fundamental human right. Since it is central to the concept of quality of life, it involves individuals, state and international responsibility and worldwide social goal.

India’s First Five-year (1951-1956) plan outlined health as a ‘positive state of wellbeing’ in which tuneful state of both mental and physical capacity of the people lead to the enjoyment of health full life.
It is stated that greater equity in the access to health care, better utilization of limited resources, appropriate policy development, active participating of the community in achieving self-reliance in health and sustaining health services and inter sectoral action are the key components of the global strategy to health for all.

1.5.1.1 Indicators of Health:

Indicators of health are mortality and morbidity (Central Statistical Office, 2015). ‘Mortality’ means death due to disease or injury (WHO, 2005) and ‘Morbidity’ is a condition due to attack of disease(s) or injury (Central Statistical Office, 2015).

1.5.2 Concept of Health Care Provisions:

1.5.2.1 Definition of Health Care:

According to Oxford Dictionary healthcare means the organized provision of medical care to individuals or a community. Healthcare is the set of services provided by a country or an organization for the treatment of the physically and the mentally ill according to Cambridge dictionary. The medical dictionary of Merriam Webster told that the ‘healthcare is the maintaining and restoration of health by the treatment and prevention of disease especially by trained and licensed professionals (as in medicine, dentistry, clinical psychology, and public health)’. Innovation of penicillin and development to heart surgery, transplants, etc. transform the meaning of healthcare (Fishbein, 2008). The United States actually delivers health care through a ‘vast patchwork of public, for-profit and not-for-profit clinics; small community hospitals;
large teaching and research institutions; health maintenance organizations; and thousands of doctors in private practice whose medical services are built around entrepreneurial enterprises’. All these constitute healthcare system of United states (Ricks, 2009). ‘Health care’ is a system of society by which people get required preventive, curative and promotive treatment to maintain healthy life for survival.

1.5.2.2 Definition of Health Care Provisions:

Healthcare service provision comprise with the input factors such as finance, human resources, equipment and medicines which are collectively lead to delivery of health care. In the healthcare system healthcare provisions are the most perceptible and acquainted product. It is action-oriented concept of health system (WHO, 2000a). Often users, professionals and other stakeholders identify provision with the health system as a whole.

Core inputs for health care delivery which must be available and accessible to have an impact are as follows: (i) Financial resources, (ii) Competent healthcare staff with right mix of skills, (iii) Adequate facilities and equipment, (iv) Secure provision of supplies and medicines, (v) Up to date evidence based clinical guideline (vi) Appropriate operational policies. The health service provisions can be considered in terms of 3 aspects (WHO, 2000b): (i) Priority setting- The steps can help with setting priorities for affordable and effective interventions, (ii) Organizing service delivery- Refers to choosing the appropriate level of delivering intervention and degree of integration, (iii) Aligning provider incentives- If the performance of health system is to be
optimized the incentive facing providers must be aligned with the goals being pursued. WHO defines provider incentive as “all the rewards and punishments that providers face as a consequence of the organizations in which they work, the institutions under which they operate and the specific intervention they provide” (WHO, 2000a).

1.5.2.3 Indicators of Health Care Provisions:
The indicators of Healthcare Provisions are Human resource, Equipment, Medicine, Infrastructure, Finance and appropriate policy.

1.5.3 Concept of Health Care Access:
Healthcare access is a complex and multi-dimensional concept. Scholars have different opinions on health access. There is no universally accepted definition of the concept. Etymologically, access is defined as a way of approaching, reaching or entering a place, as the right or opportunity to reach, use or visit (Canadian Oxford Dictionary, 1998). According to Gulliford et al. “if services are available and there is an adequate supply of services, then the opportunity to obtain health care exists, and a population may 'have access' to services. The extent to which a population 'gains access' also depends on financial, organisational and social or cultural barriers that limit the utilisation of services” (Gulliford et al., 2002). Healthcare access can be said as reaching and availing a service or a provider or an institution. People who need the service can use accordingly through this way (Daniel, 1982, Whitehead, 1992, Peters, 2007).

Health access refers to the health services availed by the people according to their real need without facing financial burden. (Evans, Justine & Ties,
Access to healthcare system has three dimensions as follows: (a) physical accessibility is availability of services within geographical reach with needed opening hour, easy appointment system etc., (b) financial affordability means the measure of peoples’ ability to pay for services and opportunity cost like transportation, abstain from work etc. and (c) acceptability depends upon effectiveness and ineffectiveness of service perceived by the patient and communication, behaviour, language etc. also motivate to seek service (Tanahashi, 1978, Penchansky, Thomas, 1981, Shengelia et al., 2005, Thiede, 2007). According to Aitken “in developing countries there are four dimensions as follows: physical reach (Physical reach is defined as the ability to enter a healthcare facility within 5 kilometres (km) from the place of residence or work., availability/capacity (requisite healthcare resources to provide patient treatment, i.e. doctors, nurses, in-patient beds, diagnostics, consumables, etc.), quality/functionality (quality of the healthcare resources available at the point of patient treatment) and affordability (ability of a patient to afford complete treatment for the illness or disease)” (Aitken, 2013). The term ‘Access’ is defined as ‘effective availability’, by measuring smoothness to avail and crossing the blockades like physical, financial, timing, and service availability obstacles to receive healthcare (Sai & Sood, 2008). Patients are more frequently in contact with the healthcare system and have expertise on gaps and barriers in accessing healthcare. From the perspective of patient health access has five dimensions as adequate, affordable, accessible, appropriate and available (European Patients Forum, 2016). The opinion of N. K. Rai (2000) on access to health care is the possibility of having health care when it is required. Other scholars’ classified ‘access’ by different terms, such as potential access, realized access, equitable access, inequitable access, effective access and efficient access. (a) Potential access means ‘a situation where
the characteristics and resources of health systems influence the use of health services”. (b) Realized access is a ‘situation where available health care services have been actually utilized’. (c) Equitable access is the ‘distribution of health services determined by social, economic and demographic characteristics and need’. (d) Effective access means ‘the use of health services that improve the health status or satisfaction’. Efficient access means ‘the use of health services that minimizes the cost of health services and maximizes the health status or satisfaction’. To measure access ‘potential access’ will be transformed into ‘realized access’ if there are enabling factors exist like ability and willingness to pay.

In this study, healthcare access conceptualized as the interaction between the persons who have need for services and the persons involved with existing healthcare resources. These interactions are influenced by capacity and quality of supply side and based on the nature and strength of demand side who are actually utilising the services.

1.5.4 Concept of Health Seeking Behaviour:

Health seeking behaviour is an action performed by people to solve health problem. This behaviour may be viewed as conduct of a human being who is under some morbid situation that leads him or her to make serial contacts with numerous serving agencies prevail in the community with the purpose of getting rid of that condition. Individual takes steps with the perception of illness experience. Arrow (1963) has told about some features of health seeking behaviour in terms of demand for healthcare. Mechanic and Volkart (1961) described this behaviour as “the way in which symptoms are perceived, evaluated and acted upon by a
person who recognizes some pain, discomfort or other signs of organic malfunction.” Various authors discussed the health seeking behaviour of an individual by using different terms. Gater (1991) had used the term “pathways to psychiatric care”, Veroff et. al. (1981) used the term “help seeking” and Mechanic (1978) mentioned the term “care seeking”.

Studies conducted on health seeking behaviour generally follow two approaches which are as follows: (i) The first approach is emphasizes the end point means utilization of the healthcare system; (ii) The second one emphasizes the ‘process’ it means illness response which is health seeking behaviour (Mackian, 2003).

This behaviour does not depend upon individual only or a sole variable, rather it depends upon many interdependent variables like socio-demographic, economic, psychological, cultural, administrative and organizational. Those variables influence perception and the action of health seeking of the ill people also. It is difficult to deduct in single choice or act, and to explain it by a single model as healthcare seeking contains several steps of activities. (Uzma et al., 1999).

Now recognition of local knowledge is increasing to understand the health seeking behaviour in particular area and to develop healthcare system through policy intervention (Price, 2001; Runganga, Sundby and Aggleton, 2001). Now exploration about the local dynamics of communities as a determinant of well-being of local inhabitants is a thrust area for academicians (Steen and Mazonde, 1999). Type of disease also
influence health seeking behaviour in choosing provider of healthcare (Goldman and Heuveline, 2000).

Health seeking behaviour plays a vital role in health management of a community. Understanding human behaviour is a basic condition to change the behaviour and improve the health system. To understand the determinants of it is essential to provide consumer oriented improved service (Olenja, 2003). Study of health seeking behaviour can be useful for understanding the health system in two ways, firstly to understand how the health system is operating and secondly how the relationship between the health system and the local people.

1.5.4.1 Indicators of Health Seeking Behaviour:

Many studies recommend that the health seeking behaviour of a place can be measured with two central indicators that are health status and healthcare utilization. In this study the term ‘health seeking behaviour’ has been used as ‘healthcare seeking behaviour’ as per first approach of Mackian.

1.6. Significance of the Study:

This study on ‘the identification of the determinants of the healthcare access in Kolkata’ is important as it will be contributed in the world data base. This kind of data is disaggregated in nature which is supplemented by primary data. The analysis of this study will be contributed to knowledge base and literature. It will also contribute to the sociological theory of health and urbanization with modification through alteration
and addition in existing social theory of healthcare access. These contributions may come under the purview of mainstream sociology. The applied side of this study is that it will gather accurate data and show some direction to the policy makers to specific upgradation or remodelling the system of healthcare access on the basis of its recommendations. This study will provide information about the actual implication of the existing policies to the administration. Common people will get the actual situation of healthcare access and can decide to behave for healthcare seeker.

1.7 **Purpose Statement:**

This ‘mixed methods’ study aims to discover the actual scenario of healthcare service access to the people with the analysis of their health seeking behaviour and perception of consumer satisfaction. It also tried to find out the influences of variables on healthcare access. A convergent mixed method design used in which qualitative and quantitative data have been collected simultaneously, analysed separately, and then presented. In this study, survey research has been used to test the theory of social behaviour which predicts that Health Policies affect healthcare delivery system and changing structure of population at risk. Healthcare delivery system and characteristics of population at risk directly create influence on the utilization pattern and consumer satisfaction for households at urban setting in India. The ‘case study ‘has helped to explore the actual experiences to health care access to the households at urban setting in India. By collecting both quantitative and qualitative data the researchers were able to compare and integrate main findings for healthcare service access scenario of urban India.
1.7.1 Identification of Variables of the Study:

The independent variables are situations healthcare access, population at risk and perception of quality. The healthcare access situations have been defined in terms of cost of treatment, Distance of facility, availability of medicine, availability of medical test, availability of bed, convenience, human support and curing. The population at risk defined in terms of predisposing, enabling and need characteristics. The dependent variable is healthcare utilization. Healthcare utilization defined on the basis of choice of healthcare facility, time interval of availing, stage of illness for seeking care, medicine taking, test performing and follow up of treatment. Perception of quality defined on the basis of perception of respondents regarding manpower, cleanliness, infrastructure and overall impression of healthcare facility. The central phenomenon defined as problems facing by common people in connection with health access during the time of actual performance of health seeking behaviour.

1.8 Research Questions: Research questions are the imperative of any research study. It provides appropriate guidelines for the study. Therefore, the researcher has also prepared a guideline for her study in the form of number of questions. This study applies mixed method approaches as analytical tool. The questions which are concerned with this study, subdivided under quantitative and qualitative part.

Research questions for quantitative part of the study:

a) What are the probable determinants of health seeking behaviour?

b) What are the factors influences to create access barriers among the health seekers?
Research questions for qualitative part of the study have been sub divided into two parts which are as follows:

Central question: Whether the households at Kolkata City are getting required healthcare access?

Other relevant questions: a) what are the reasons behind particular decision of respondents regarding health seeking behaviour?

b) What do they describe their experiences regarding healthcare service received in their last IPD visit?

c) How does their health seeking behaviour influenced by social determinants?

Research question for the part of mixed methods:

The experiences of the respondents about their healthcare access and the influence of determinants can be measured and explained via integrative mixed method analysis.

What kind of experiences of the respondents regarding healthcare access and determinants are responsible for the prevailing system can be measured and explained via integrative mixed method analysis?

1.9 Objectives of the Study:

The present study attempts to achieve the objective to know(assess) the reality of healthcare access situation to common people in Kolkata.

The related specific objectives are as follows:

1) To know about the available healthcare provisions in KMC area.

2) To find out the socio-economic characteristics of the people of KMC.
3) How the sampled household differ in slum and non-slum area under KMC.
4) To identify the health seeking behaviour of the slum and non-slum people in the study area.
5) To know about the situation of healthcare accessibility influences health seeking behaviour of this study area.
6) How does the nature of perception of the users and their first-hand experiences gained through healthcare access determine the level of satisfaction?
7) Try to examine the relevance of the model of Anderson (1974) under socio-behavioural theory of in context of interpreting healthcare situation in contemporary city of Kolkata.

1.10 Organization of the Study (Outline of the Thesis):

The present study has been divided into six (6) chapters which are as below:

**Chapter-I:** A general introduction of the study along with its background, identification of research problem, magnitude and purpose of the problem, objectives, and significance of the study have been presented in this chapter.

**Chapter-II:** An overview of the theoretical background of the study. Theories related to sociology of health and urban sociology have been incorporated as issues of health of urban area.

**Chapter-III:** An overview of related studies (mainly empirical) of international, national and local level to identify the research gap and specific research questions are included in this study.
**Chapter-IV:** This chapter deals methodological steps. It depicts justification and description of research design, sampling design, technique and tools of data collection, analysis, interpretation and validation of result.

**Chapter-V:** This chapter represents the primary data in tabular form and analyse and interpret with the statistical tests.

**Chapter-VI:** Finally, conclusion has been drawn from the preceding analysis and prepared some policy suggestions on the basis of the findings.