Chapter 1

Introduction

Urbanization is an important social phenomenon that involves an array of interrelated process of demographic, economic, environmental and technological changes. The twentieth century witnessed a rapid urbanisation of the world's population. The global proportion of urban population increased from a mere 13 per cent in 1900 to 29 per cent in 1950 and, reached 49 per cent in 2005. The rising numbers of urban dwellers give the best indication of the scale of these unprecedented trends: the urban population increased from 220 million in 1900 to 732 million in 1950, and reached 3.2 billion in 2005, thus more than quadrupling since 1950. In the middle of the year 2009, the number of people living in urban areas (3.42 billion) surpassed the number living in rural areas (3.41 billion), thus more than quadrupling since 1950. Since then the world has become more urban than rural. "Urban" refers to an area where a multiplicity of communities of substantial size (minimum population of 5,000) and density (at least 400 people per sq km) live with a variety of non-agricultural pursuits, with good infrastructure facilities. However, this urban expansion is not a phenomenon of wealthy countries. Major part of the growth has occurred in unplanned and under-served city slums. The pace of urbanization exceeds the rate at which basic infrastructure and services can be provided, and the consequences for the urban poor have been dire. At present more than 32 percent of the world's urban population are estimated to live in slums. Failure to prepare for this unprecedented and inevitable urban explosion carries serious implications for global security and environmental sustainability. Therefore, this is noteworthy in demographic history that though more than fifty percent of world's population live in urban areas yet one third of them are in a state of chronic poverty. One billion people which is almost one-third of
the world’s urban population, currently live in slums. The absolute number of urban poor has increased in the last fifteen to twenty years at a rate faster than that in rural areas. Global poverty has become an urban phenomenon. In the year 2002, 746 million people in urban areas were living on less than $2.00 a day (Ravallion 2007, 16). Rapid urban growth has made Asia home to the largest share of the world’s slum dwellers. Therefore, though urbanization is an important and positive transformation, linked to economic growth and a better educated and productive labour force; it could also contribute to greater environmental sustainability, and to improved social welfare through better access to services. But this can only be achieved by policies and planning that use a gendered perspective to look at various aspects of urban poverty that stretches beyond income, to include domestic and care responsibilities, dependency and health of women.

1.1 Trends of Urbanization in India, West Bengal and Kolkata

India as the rest of the world also is getting urbanized. Rate of urbanization in India has increased from 27.81% in 2001 Census to 31.16% in 2011 Census. The urban population of India is one of the largest in the world at 377.1 million inhabitants, equivalent of almost the entire population of the United States of America.

West Bengal is the fourth most populated state in India with one of the most population density. The state has a population of about 91.3 million according to 2011 census. In fact, it is considered as the ninth most populated state in the world. The overall growth rate of population of the state is about 14% which is below the national average, whereas the growth in urban population is about 30% which is nearly the same as the national average. The population density is 1028, much higher when compared to the national average of 382. The state sex ratio stands at 950. Literacy rate is 76%, marginally above national average of 74%. A demographic profile of West Bengal and India based on 2011 census is given below.

2
Table 1.1  Statistical Profile of West Bengal and India (2011 Census)

<table>
<thead>
<tr>
<th></th>
<th>West Bengal</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population (in millions)</td>
<td>91.3</td>
<td>1210.2</td>
</tr>
<tr>
<td>Urban Population (in millions)</td>
<td>29.1</td>
<td>377.1</td>
</tr>
<tr>
<td>Percentage of urban to total population</td>
<td>31.87</td>
<td>31.16</td>
</tr>
<tr>
<td>Decadal Population Growth (percentage)</td>
<td>13.84</td>
<td>17.64</td>
</tr>
<tr>
<td>Decadal Urban Population Growth (percentage)</td>
<td>29.72</td>
<td>31.8</td>
</tr>
<tr>
<td>Population Density (per sq. km.)</td>
<td>1028</td>
<td>382</td>
</tr>
<tr>
<td>Sex ratio (females per 1000 males)</td>
<td>950</td>
<td>940</td>
</tr>
<tr>
<td>Child Sex ratio(0-6)</td>
<td>956</td>
<td>914</td>
</tr>
<tr>
<td>Literacy (percentage)</td>
<td>76.3</td>
<td>74.4</td>
</tr>
</tbody>
</table>

Some Basic Statistics of Urban Population in West Bengal and India are given in Table 1.2 and Table 1.3.

Table 1.2 Population of West Bengal by sex and residence: as per Census 2011

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total population</th>
<th>Sex ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>14,964,082</td>
<td>14,128,920</td>
<td>29,093,002</td>
<td>944</td>
</tr>
<tr>
<td>Rural</td>
<td>31,844,945</td>
<td>30,338,168</td>
<td>62,183,113</td>
<td>953</td>
</tr>
<tr>
<td>Total</td>
<td>46,809,027</td>
<td>44,467,088</td>
<td>91,276,115</td>
<td>950</td>
</tr>
</tbody>
</table>
Table 1.3 Population of India by sex and residence: 2011

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total population</th>
<th>Sex ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>19,58,07,196</td>
<td>18,12,98,564</td>
<td>37,71,05,760</td>
<td>926</td>
</tr>
<tr>
<td>Rural</td>
<td>42,79,17,052</td>
<td>40,51,70,610</td>
<td>83,30,87,662</td>
<td>947</td>
</tr>
<tr>
<td>Total</td>
<td>62,37,24,248</td>
<td>58,64,69,174</td>
<td>1,21,01,93,422</td>
<td>940</td>
</tr>
</tbody>
</table>

The total number of urban dwellers in West Bengal as per the population total, of the census of India, 2011 is 29,093,002. The total number of urban dwellers in the country is 37,71,05,760. The percentage of urban population to the total population in the country works out to 31.16% as against 31.87% in West Bengal.

The Census of India 2011 suggests that 66% of all statutory towns in India have slums where 17.4% of total urban households currently resides. Urban poverty and slum growth are local problems, but their nature and scale demand a global response.

Kolkata is the capital city of West Bengal. Kolkata Municipal Corporation has a population of 4580544 as of 2011 Census, with a population density of 24,430 per square kilometer. It is one of the megacities in India and also one of the largest urban agglomerations in the world. However, the process of urbanization and the unprecedented growth in the urban population has resulted in acute housing deficit and increasing poverty. Thereby compelling the poor population of the city to reside in the slums.

1.2 The slums of Kolkata

The slums of Kolkata are probably as old as the city itself. They can be divided
into three groups: the older ones, up to 150 years’ old, in the heart of the city, are associated with early urbanization. The second group dates from the 1940s and 1950s and emerged as an outcome of industrialization-based rural–urban migration, locating themselves around industrial sites and near infra-structural arteries. The third group came into being after the independence of India and took vacant urban lands and areas along roads, canals and on marginal lands. In 2001, 1.5 million people, or one third of Kolkata’s population, lived in more than five thousand five hundred slums of which 2011 are registered and 3500 unregistered slums. Slums of Kolkata are often characterized by deteriorating or poorly structured houses crowded together, poor environmental managements such as deficient access to safe drinking water and sanitation, stagnation of water and poor drainage with excessive open sewers, excessive amount of uncollected rubbish, severe over-crowding, flies, and poor lighting and ventilation which affect the health of the slum-dwellers in various ways.

The slums of Kolkata have often been conceptualized as social clusters that engender a distinct set of health problems and depict the worst health conditions. The poor environmental condition coupled with high population density makes them a major reservoir for a wide spectrum of adverse health conditions such as undernutrition, delivery–related complications, postpartum morbidity (Mony et al, 2006). Brilliant films have been made by Satyajit Ray, Ritwik Ghatak, Mrinal Sen, who have documented the internal motif and the material conditions of the life and living of the ‘unfortunate’ women of Kolkata slums. Different Indian and foreign scholars have also made systematic and critical studies on slums. However, there have been limited efforts to study the health of individuals specially women living in slums. Of the few studies that exist, Mahadevan (1979) had attempted to discover the socio-cultural factors responsible for the differences in fertility behaviour in his micro-level study of different castes of Madurai district in Tamil Nadu. Later he along with Chandrasekaran, Freedman and others (1982) provided
an understanding of the socio-economic determinants of fertility, mortality, and demographic transition along with a conceptual model on health and mortality. Earlier Davis Kingsley (1951) had noted the general inverse relationship between caste-status and fertility. Till then, very few micro-level studies were undertaken to explore the how and why of this interesting proposition. Later studies of Agarwala (1970) and Wyon & Gordon (1971), however do not support this hypothesis. Bhargava (1991) gave an overview of the current status of Neonatal Care and alternative strategies for reduction of neonatal mortality in the decade of nineties. McCarthy and Deborah (1992) provided the framework for analyzing the determinants of maternal mortality. Osmani (1992) addressed issues arising from poverty in terms of nutritional status, the role of anthropometry and gender bias in allocation of nutrients and health care. Prakash (1993) in her article suggested some new approaches to Women’s Health Care. Chatterjee (1993) made her study on the health conditions of the poor masses of India. Roy Bardhan (1994) studied the slums of Kolkata and made a retrospective study of the public policies. Sen and Dreze (1995) pointed out the insufficient and ineffective activity of the Indian Government in the field of health care and social security. Cassels (1995), in his discussion paper gave an overview on the key issues of health sector reforms in less developed countries. Bhattacharya (1996) studied the salient socio-demographic features of the slums and pavement dwellers of Kolkata metropolis. Mitra and others (1998) concentrated on the health aspects of the slum dwellers in Delhi and described them as an ‘unhealthy population’. The 52nd Round of National Sample Survey Organisation (1998) indicated that the poor are forced to spend a disproportionately higher percentage (12%) of their income on health services and nearly a fifth do not avail treatment at all. National Family Health Survey-2 (1998-99) points out that despite nationwide programme for nutritional supplementation for pregnant woman and children, available indicators present a pessimistic scenario. Bos, Hon, Akiko and Chellaraj (1999) made a statistical analysis of
the health, nutrition and population indicators. Gupta and Baghel (1999) in their study on Indian slums attempted to elucidate and explain the levels, differentials, causes and determinants of infant mortality in Calcutta Metropolis and Raipur City (M.P.). The infant mortality rate (IMR) in the slums was found to be quite high but lower than that in rural India, underlining the importance of urban residence as a major controlling factor of infant mortality. The IMR in the slums of Calcutta was about one and a half times that in the slums of Raipur, suggesting that slum infant mortality is far worse in metropolises than in smaller cities. A number of individual-level, household-level and slum-level determinants were examined, and all played some explanatory role, but the differences in neighbourhood environment contributed most substantially to the infant mortality differential between the slums of Calcutta and Raipur. Claeson and Pathmanathan (1999) suggested some ways of reducing child mortality in India. Balasubramanian (2000) studied the issues and strategies for the improvement of maternal survival in India. Das and Coutinho (2000) in their article made a sociological enquiry with regard to disease control and immunization. Feachem and Gwatkin (2000) focused on inequalities in health and identified poverty, literacy, fertility and nutrition as the key areas influencing health outcomes. Loudon (2000) had observed the incidence of maternal mortality in the past and established the relevance of her study in the developing countries. Rush (2000) in his paper studied the inter-linkage between nutrition and maternal mortality. Ramachandran and others (2001) reviewed the progress of the 'Health, Nutrition and Family Welfare Programme' during the Ninth Plan Period. Qadeer, Sen and Nayar (2001) highlighted the political economy of Public Health in South Asia and gave critical assessment on the health reforms. Bhattacharya and Bhattacharya (2003) gave an overview on some demographic characteristics of the slums of West Bengal at the beginning of Third Millennium. Mishra, Chatterjee and Rao (2003) provided the vital statistics on current health scenario of India and gave an overview on the State's role in
health, HIV/AIDS, public and private health care, drug policy and regulations and the potential of health research in India. The UN-Habitat Global Report on Human Settlements (2003) provided an understanding of the challenges of the slums. Infant mortality rate in the slums is a reliable indicator of health status and well-being of the children. Besides, it reflects the socioeconomic development of the population. The study of infant mortality is significant, especially because mortality during the first year of life is invariably high for all countries, irrespective of whether the overall levels of mortality are high or low. Infant and child mortality is relatively higher in groups where fertility is higher, i.e., increased mortality is response to high fertility (Chen et al., 1974; Choudhury et al., 1976). Another relationship is also well recognized i.e., high fertility is a biological and behavioural response to high mortality (Preston, 1978). In single terms higher infant mortality tends to higher fertility and vice-a-versa. Like fertility, infant mortality is also influenced by a number of factors such as parent’s education particularly that of mother (Caldwell, 1979; Nag, 1983; Bhasin and Kshatriya, 1990; UN, 1994) and access to medical facilities (UN, 1985; Jain, 1985; Mahadevan, 1989; Suri Babu and Bhasin, 1990; Chachra and Bhasin, 1998c; Bhasin and Nag, 2002). In India, mother’s education (individual level variable), income (household level variable), and availability of medical facilities and care (community level variable), are major determinants of infant and child mortality (Jain, 1985). Closely related to fertility is birth control. Birth control in its modern application means the conscious responsible control of conception (Unger, 2013). Family planning through contraception aims to achieve two main objectives; firstly to have only the desired number of children and secondly to have these children by proper spacing of pregnancies. In India, there has been a considerable increase in the governmental and non-governmental activities for promoting the adoption of family planning through widespread and intensified efforts as well as clinical services being made available to the users of family planning methods. Acceptance of contraception by
a couple is governed by various socio-cultural factors, such as religion (NFHS: 1998-99, 2002) and education of husband and wife (Coale, 1965; Berelson, 1976). In India, the states with greater contraceptive use have generally achieved a more advanced state of socioeconomic modernization. Mass media plays an important role in promotion and acceptability of contraception (Bhat, 1996; Ramesh et al., 1996). Spousal communication also increases the likelihood of contraceptive use (Lasee and Becker, 1997; Kamal, 1999; Ghosh, 2001). In addition to this, religious affiliation affects the acceptance of sterilization due to behaviour related to childbearing (Chacko, 1988; Goldscheider and Mosher, 1988; Reddy, 1996). Contraceptive prevalence rate is found to be lower among the Muslim and lower caste Hindu women (Gulati, 1996; Bora et al., 1998). Rajani and Dua (2005) in their review of women and children's health in India focused on safe motherhood and the burden of disease. Agarwal and Taneja (2005) discussed a number of factors that could increase health vulnerability among the urban poor. Government of India (2011) took an attempt to review the trend of urban poverty from 1951 to 2011 in India and evaluate the existing programme for the improvement of urban poor. However, the major limitation of most of these studies is that they have been either confined to a specific area or cities, or the findings have totally been generalized. It is also evident that micro-level social studies about reproductive morbidity and its determinants in Indian slums are almost nonexistent. In view of these, the objectives of the present study are as follows:

1.3 Objectives of the present study

The main objectives of the study based on the Kolkata slums are:

- To assess the health of the individuals, specially women and children, living in different slums of Kolkata
To ascertain the socio-demographic determinants influencing the health conditions of women population engaged in various occupations living in the slums.

To review the impact of the environmental and housing conditions on the health of women and children.

To ascertain how different socio-economic and cultural factors play a crucial role in determining the fertility, family planning, acceptance of contraceptives and overall health of the mother and child.

To evaluate the availability and utilization pattern of the reproductive and child health services in the slums.

1.4 Scope of the Study

This study looks at different aspects of poverty that impacts negatively both women and children’s health. The women living here have very little opportunity to have decent lifestyles in spite of having immense responsibilities towards their family. The factors such as poverty, overwork and social inequality are accounted for considerable neglect of their health. The demands of managing a house, taking care of the husband and children and going out to work to bring in extra money tends to place the women's own health quite low on the list of priorities. It may be often seen that unless they have more than one complaint of ill health they do not seek medical treatment. A number of socioeconomic and cultural factors (distant determinants) operate through a set of intermediate determinants (health status, reproductive status, access to health services, extent of utilization of health services) to determine the level of maternal and child well-being. Unlike rural areas, which have a dedicated government health care structure, urban areas do not have such a structure. Further medical costs, timings, distance and other...
factors put the secondary care and private sector facilities out of reach of most urban poor. Therefore concerted efforts are needed to offer useful data to the health planners as well as policymakers in order to get relevant strategies that could be designed for bringing improvements in health conditions of this disadvantaged population. Methodology plays a crucial part in social studies, without which results are likely to be unreliable and defective. For the present study a descriptive research design based on the qualitative and quantitative data was taken up to determine the socio-demographic conditions that determine the health status of the women and children in the slums of Kolkata. The nature of the study is unconventional and multidisciplinary, concentrating on the systematic understanding of the health conditions of the women and children. The present work also attempts to identify the sociodemographic factors that influence the utilization of the reproductive health services among women in the slums.

1.5 Materials and Methods

The key methods that have been used in this study for collecting the data are:

a. Anthropological methods that include case study method, participant observation method along social surveys with open-ended questionnaires and schedules.

b. Statistical designs adopting the multi-stage stratified and random sampling.

c. Besides, health conditions were accessed through health survey in order to collect data on individual health problems and/or ailment symptoms affecting the individual.

The data were collected by repeated visits to the selected households by the researcher herself. The questionnaires administered during the field work covered topics including antenatal, delivery, postnatal care, reproductive history, contraceptive use,
etc. Later on analysis of data was done with the help of Statistical Package for Social Science. The relation among the key sociodemographic variables are described using distribution frequencies of the data. Further analysis was done by using the multivariate logistic regression. This was done to identify factors that are associated with the use of the reproductive health services, namely, use of modern contraceptive methods; availing antenatal services defined as at least three ANC visits; use of skilled birth attendants; and place of delivery.

1.6 Study design:

In this present study four slums within the Kolkata Municipal Area were randomly taken up. It was convenient to conduct intensive fieldwork in and around these areas as there are large concentrations of woman and child population are residing in these slum areas. 559 ever-married women of the reproductive age groups were selected from 559 households from four different slums located one each in Ward No –78 (Borough-IX) and Ward No-86 (Borough-VIII) respectively and two slums located in Ward no-82 (Borough –IX) were taken up. The fieldwork was done in several installments over a quite long time period because it was necessary to establish good rapport with the subjects of the study in order to get good quality data. The communication with the subjects was renewed through frequent visits to their households in the slums for data collection.
Figure 1: Map of the Kolkata Metropolitan Area
(Source: Kolkata Municipal Corporation, 2011)
Table 1.4. Tabular representation of the name and address of the studied slums

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Ward No.</th>
<th>Borough Number</th>
<th>Addresses of the studied Slums</th>
<th>No. of studied households</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>78</td>
<td>IX</td>
<td>19/A Chetla Haat road, Kolkata- 700027</td>
<td>114</td>
<td>20.39</td>
</tr>
<tr>
<td>2</td>
<td>82</td>
<td>IX</td>
<td>42, Ekbalpur lane, Kolkata-700023</td>
<td>108</td>
<td>19.32</td>
</tr>
<tr>
<td>3</td>
<td>82</td>
<td>IX</td>
<td>50, Diamond Harbour road, Kolkata-23</td>
<td>135</td>
<td>24.15</td>
</tr>
<tr>
<td>4</td>
<td>86</td>
<td>VIII</td>
<td>41/3 Chetla Road, Kolkata -700029</td>
<td>202</td>
<td>36.14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>559</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

1The Kolkata city is divided into 144 administrative wards that are grouped into 15 boroughs. Each of these wards elects a councillor to the Kolkata Municipal Corporation or KMC. Each borough has a committee consisting of the councillors elected from the respective wards of the borough. The Corporation, through the borough committees, maintains government-aided schools, hospitals and municipal markets and partakes in urban planning and road maintenance.
Figure 2: Map showing the different wards under study of Kolkata Municipal Corporation (highlighted areas)

Source: Kolkata Municipal Corporation, 2011
1.7 Research Strategy

The data have been collected in different phases of field work during 2009 to 2014 the details of which are mentioned below:

1. The first set of data was collected on the key social and demographic variables from 559 households from the ever-married women respondents who are between 15-49 years of age groups.

2. Data on the second domain of interest was knowledge and current use of contraceptive methods among those women in the four selected slums located in various wards of Kolkata Municipal Corporation.

3. Data on the third domain was collected on antenatal care of selected sample female population. These data were collected in terms of frequency (number of visits), timing (in which trimester of pregnancy) and place of ANC services.

4. Data on the fourth domain of the study was collected on the place of delivery and postpartum care/check-up received by ever married and sampled female population and the health conditions of their children between 0-4 years of age groups. In this study an attempt has been made to study the effects related to different factors in infant mortality, fertility, as well as use of methods for controlling birth among the Kolkata slum dwellers. Its main aim is to identify the singular and collective relation among the variables that have impacted. The dependent variables considered in this study are fertility, infant mortality, and the use of birth control methods. The different independent variables considered are, women’s age at present, women’s age at marriage, age at menarche, number of live births per married women, ideal number of children, desired number of sons, women’s level of education, and income.
1.8 Preparation of schedules and questionnaires

Schedules were prepared and tested on the demography, women reproductive performance including fertility, morbidity, menarcheal and menopausal age, common aliment symptoms, activity pattern, health maintenance, educational and occupational status, child birth and antenatal care, child morbidity and treatment, feeding practices and supplementation methods prevalent among the studied population. Making repeat visits to the household rectified discrepancies. The completed questionnaires were again checked and edited before they were coded and processed by using SPSS software. Most of the interview was devoted to identify pathways by which the mother's education influences the health and survival of her child. Questions concerning respondents' reported symptoms of reproductive problems formed one of the 14 sections in the questionnaire. To compose the questions, a comprehensive list of reproductive morbidities (both obstetric and gynecological), including complete details of symptoms for each condition was prepared in everyday language that the women being interviewed could understand. This list was thoroughly pretested and translated into Bengali, the local language. The interview lasted for about two hours, of which about 20 minutes were devoted to the section on symptoms of reproductive morbidity and its treatment. The questions were not framed to assess the occurrence of medically determined gynecological problems. Instead, they elicited women's perceptions of bio medically-defined morbidities that they were experiencing.

1.9 Data Types

Socio-demographic data have been collected from 559 ever-married women, of reproductive age groups (between 15-49 years) and their children (0-4 years). The demographic parameters suggested by WHO scientific Group (1964) have been taken
into consideration. These are as follows:

**Individual information:** These include name, age, sex, marital status, place of residence religious beliefs etc. of the informants from 559 households.

**Fertility and reproductive health behaviour:** Includes pregnancy history of every ever-married women, age at marriage, present age of mother, age at first and last child birth, age at menarche and menopause, total number of live births, birth order, age and sex of child, place of delivery, ante-natal care. Data on reproductive performance have been collected from 559 ever-married women between (15-49) years.

**Child health and morbidity pattern:** Includes data on number of children living, common aliment symptoms and diagnosed diseases, treatment availability and practices, breastfeeding practices and duration by age, gender and other characteristics. Data have been recorded on 221 children (0-4) years of age.

**Socio-economic traits:** These include occupational and educational status of the informants.

**Self-reported symptoms of gynecological problems:**

The disorders associated with the self-reported symptoms are as follows:

1. **Anemia:** Feeling excessively weak, tired, or breathless during normal household activities.

2. **Menstrual disorders:** Heavy or light irregular bleeding; painful menstruation, or spotting between periods.

3. **Acute pelvic inflammatory disease (PID):** Lower abdominal pain or vaginal discharge with fever.

4. **Hemorrhoids:** Pain or bleeding while passing stools.

6. Lower reproductive tract infection: White or colored discharge from the vagina with bad odor, itching, or irritation.

7. Urinary tract infection: Abnormal frequency of urination, with burning sensation while passing urine.

8. Prolapse: Feeling of something (a mass or swelling) coming from the vagina, or leakage of urine when coughing or sneezing.

9. Fistula: Constant leaking of feces or urine from the vagina.

No claims have been made in this study about the diagnostic accuracy of these symptoms. The relationships between self-reported symptoms and clinically verifiable conditions in this study are uncertain. Some of the symptoms reported here might not be gynecological in nature. However, the symptom categories are suggestive of the corresponding medical conditions and, in terms of clinical practice, warrant referral for detailed examination and laboratory testing. The questions about pain during intercourse were dropped because information on this topic proved difficult to collect. The questions about other symptoms were included in the main questionnaire. Regardless of the imprecise correspondence between these women's reported symptoms and medically verifiable conditions, their perceived ill health is important in its own because it determines their health-seeking behavior. An attempt has been made to produce micro level findings. There are certain gaps and therefore the conclusion derived cannot be comprehensive in
1.10 Ethical considerations:

All the individuals selected in the sample for the present study provided their
consent voluntarily. This work was approved by the Indian Council of Medical Research ethical review board.

1.11 Overview of the thesis

This study is focused on the health conditions of the women and children living in abject poverty in the slums of Kolkata. In Chapter one, the slums of Kolkata has been discussed in relation with urbanization. The aim and scope of the study has also been introduced along with a comprehensive review of the literatures on this topic. The chapter also deals with the research methodologies and the approaches for collecting data. The second chapter discusses about various aspects of slums in Kolkata including area, population. It includes a brief history of Kolkata city and the slums. It also gives the details about socio-economic and household characteristics including quality of life, poverty level and vulnerability in slums of Kolkata. Chapter three portrays the socio-economic life of the slum women in Kolkata, along with the socio-demographic indicators which mainly focus on the health condition of the women living in slum areas. Chapter four provides detailed account of the issues of fertility and reproductive health behaviour of the slum women. Along with this it also explains about the barriers in accessing the system of health delivery and the challenges in adopting the health delivery systems. Chapter five gives a holistic view of the health conditions, diseases and treatment availed by the slum women. The chapter six discusses about the child health and diseases common among the slum children; breastfeeding practices and immunization coverage within slums. The seventh chapter deals with the hypothesis testing by the analysis of data. In chapter eight, the summary and conclusions based on the study and future directions for research are presented.