2.1.0 Introduction to Health Inequality

According to the WHO, positive health is described as “a state of complete physical, mental and social wellbeing and not merely an absence of disease or infirmity”. The term ‘health’ encompasses a range of determinants and therefore in order to assess the complete meaning of ‘good health’, one has to take onto account a myriad of determinants like overall mental health, dearth of diseases, emotional suppleness, social wellbeing and so on. In the course of understanding good health, one might stumble upon several discrepancies in the distribution of the health determinants, which are more commonly called ‘Health Inequalities’. The term “Health Inequality” is generally used in Europe and with the advent of the World Health Organization; the terminology acquired a greater meaning and impetus.

Inequalities in health are present in every society in the sense that certain parts of the society are well endowed whereas the other parts might be impoverished. The areas which are well endowed enjoy better health conditions than poverty stricken areas. Also certain areas do not have the access to health care services and therefore do not enjoy equality in true sense of the term. Health inequalities are attributable to various factors but broadly they can be classified into three types.
i.) Biological variations: This can be attributed to the biological or natural differences between groups of the population, like, higher mortality rates among infants, lesser mobility among elderly people etc.

ii.) Free choice: This can be attributed to the personal choices and issues of lifestyle like alcoholism, use and abuse of substance etc.

iii.) External environment: This can be attributed to conditions mainly outside the control of the individual concerned.

It is an increasingly important issue in public health policy and has often been employed to explore regional and ethnic variations within and between regions. They also serve as an important yard stick which can be used in the planning and effective implementation of health care interventions. The complexity and inter-relatedness of health determinants encompasses

- Natural Biological Variations.
- Health damaging behavior if freely chosen, such as participation in certain sports and behaviors.
- Health damaging behavior when chosen by individuals.
- Exposure to unhealthy, stressful living and working conditions.
- Inadequate access to healthcare and other public services.
- Poverty and Unsustainable livelihood.
All these above factors and more lead to the growth of inequalities in health and therefore the system of health care is challenged at the very initial stage. Health of an individual is the most important individual and social asset.

The system of health care can be said to be based on the concept of equality if all the evident discriminations on the basis of caste, class, creed, race, religion and political belief are done away with and health services are rendered as an intrinsic part of enjoying human rights. The emphasis thus, must lie on the fact that qualitative health care must be provided to all without any discriminative biases or judgments. The policies and the programs of the government of most developing nations have failed to do justice on the subject of meting out quality health care facilities for all sections of the society and the result is well evident. The yawning gap the health care facilities available to the rich and those available to the poor, cites examples of what ‘Health Inequality’ actually means.

2.2.0 Health Inequality In India

Health has been understood as complete well being. Health care facilities have to facilitate the well being of members of the society. India is a pluralistic country which consists of rural and urban, poor and rich and backward and developed. In this context various threats are present in Indian society. Identifying various threats to health of people in the country would provide scientific background to the study. Following sections would be narrating major threats to health of People in India.
Bradis and Cox (1972), deal with the demand for medical services, factors responsible for rise in medical cost and the choice of physician’s on the place of practice. They find that the demand for medical services would raise leading to an increase in the medical cost. They argue that increased expenditure on health need not result in high health status.

A study by Ram and Datta (1976) regarding utilization of health and family welfare services in a rural areas of Maharashtra revealed that only about one fourth of the 3606 households visited PHCs.

Oomen T.K (1978) found that the predominant motivational force in the case of doctors is self orientation. He found that most of the doctors belong to the upper of the society. Majority of the doctors want their sons to become doctors. Doctors feel that high social status is the result of high income which is possible in urban areas rather than rural areas and therefore they focus on working in the urban areas thus neglecting the rural areas.

Sharma, Kataria and Gandhi (1978) in their study try to identify the activities performed by physicians and utilization of time by them. It was observed that medical officers in GGHS spend maximum time in prescription writing and taking history of the patient where time of a physician can be used in a better way.

Panikar (1979) observes that birth, death, infant and maternal mortality rates are still high and the proportion of couples with wives in the child bearing age, practicing low family planning indicates the need for more health and family welfare facilities. He
also sees that it is not the lack of resources or infrastructural facilities but proper polices and priorities which act as an impediment to the improvement of health status of the people.

Shanti Ghosh (1979) deals with issues relating to the development of man power for the delivery of an effective and low cost package of health services in rural areas. She argues that since there is a tendency among modern physicians to settle in urban areas, indigenous practitioners and village level health workers are needed most in rural areas. The expansion of infrastructural facilities implies that there is current demand for health and family welfare services. But it is observed by Mackay (1988) that even though there are excellent primary care facilities, they are underutilized or not at all utilized.

The situation is no different in urban areas. A study conducted in metropolitan cities in India by Yesudian (1981) revealed that households belonging to lower social classes utilized health and family welfare services available in Government institution much lesser as compared to their counterparts belonging to higher and middle classes.

The following section will help identify the reasons for under utilization and non-utilization of health and family welfare services available in government institutions.

Distance between people and the service delivery unit is identified as a factor in the utilization of health and family services. That is, when the distance between people and
services unit is short, utilization of service is seen better as traced by Reddy (1980), Mouli and Guruswamy (1982) and Ram and Datta (1976).

Yesudian (1981) and Duadeer (1977) pointed out, social class which includes factors like education, occupation and income is another factor which makes for difference in the utilization of health and family welfare services. The upper and middle classes utilize these services more often than the lower classes of society.

According to Yesudian (1981) the lower classes often try to line with their illnesses as far as possible. They do not perceive the need to seek medical care unless and until the disease starts affecting their day to day work or incapacitating them and they consider their illnesses as one of the main crises that they face in their day to day life.

Ram and Datta (1976), Devi (1986), Sholapurkar, Mouli and Gopal, (1983) opinioned that other factors such as awareness of different services available in government institutions, quality of services, waiting time, availability of medicines, payment of money for the services, etc., are identified as factors affecting the utilization of health and family welfare services.

Fatima (1994) studied on underdevelopment of health and hygiene in colonial Goa and gives reason for poor environmental hygiene in urban and rural Goa under Portuguese rule. In her study she reveals that the picture of colonial Goa which continuously underwent the deterioration of native medicine system on account of discriminatory restrictions imposed by the Portuguese rulers on one hand and the repeated neglect of health sector development (western type) by the Portuguese rulers on other hand.
Anaemia is an important setback amongst young children living in rural India. A cross-sectional, community based study (Pasricha et al., 2009) engaged in extensive community consultation. They utilized local women as field workers, harnessing the capacity of local health workers to assist with the study. They adopted a programmatic approach with a census rather than random sampling strategy in the village, incorporating appropriate case management for children identified to have anaemia. They found anaemia as a threat to health of rural children.

**Manima (2003)** Globalization unfortunately seems to worsen many of the burdens of the developing world, like the negative influence of the mighty pharmaceutical industry. Continuing medical education offered only by the pharmaceutical industry instills bias into the minds of most medical professionals. Prescription practices by many professionals are influenced by the industry; so much so, inexpensive drugs or formulations are abandoned in favor of expensive ones, adding to the burden of a much-suffering individual. Palliative care should have been a major force against such evils, but it seems to get more clinical and institutionalized with time, with the social issues taking a back seat. Unethical research practices and preferential treatment in drug availability are practices that continue to marginalize the less privileged. Adoption of the dominant ideology from the West in the developing world also raises problems like cultural unsuitability.

**Mavalankar, Raman, Dwivedi, and Jain (2004)** reported resource-poor countries, substantial sums of money from governments and international donors are used to purchase equipment for health facilities. WHO estimates that 50-80% of such equipment remains non-functional. This study is based on experience from various
projects in developing countries in Asia and Africa. The key issues are in the purchase, distribution, installation, management and maintenance of equipment for emergency obstetric care services.

Gupta and Kumar (2007) found a close association between social circumstances and health. In India, there is a significant burden of both communicable and non-communicable diseases. Risk factors responsible for these conditions are underweight, unsafe sex, unsafe water, poor sanitation and hygiene, indoor smoke pollution, zinc, iron and vitamin A deficiency, tobacco use, high blood pressure, and high cholesterol. All these risk factors are influenced by social factors and in India the more important factors are poverty and illiteracy. Changing lifestyles as a result of rising incomes are significant risk factors for non-communicable diseases. The social evils that influence poverty and health are macro level national and regional issues such as physical geography, governance patterns and failures, geopolitics, economic policy, natural resources decline, population growth, the demographic trap and the fiscal trap. Household and micro level factors include the poverty trap, cultural barriers, lack of innovation and saving, absence of trade or business, unemployment, technological reversal, adverse productivity shock, social issues related to females, and adolescent social issues. Social determinants important for non-communicable diseases, defined by the World Health Organization include the social gradient, stress, early life events, social exclusion, improper work conditions, unemployment, lack of social support, addiction, food scarcity or excess and uneven distribution, lack of proper transport, and illiteracy or low educational status. A concerted action to eradicate these social evils
shall have to focus on reducing poverty, improving educational status and providing equitable and accessible healthcare to all.

Govender, Ghaffar, & Nishtar (2007) observed diabetes has assumed alarming levels in India and Pakistan. However, governments in these countries are ill-prepared for coping with this epidemic. The review finds that in both countries there has been a paucity of systematic efforts to measure the economic and social impact of diabetes. Therefore, in the absence of hard evidence to these diseases are likely to remain outside of mainstream public health planning.

Venkataraman, Kannan, Kalra and Gambhir (2007) illustrate diabetes mellitus across the world especially in India is substantial and much of the morbidity and mortality is due to development of diabetic complications. Control of blood glucose is important to reduce occurrence of these complications. Monitoring and appropriate management of sugar levels have been shown to improve outcomes in patients with diabetes in other parts of the world. However, the adoption of glycated hemoglobin as part of routine monitoring of diabetes patients in India will need to answer issues of availability, affordability and accessibility.

Kuruvilla and Jacob (2007) narrated association between poor mental health and the experience of poverty and deprivation, the relationship is complex. They discussed the epidemiological data on mental illness among the different socio-economic groups, look at the cause -effect debate on poverty and mental illness and the nature of mental distress and disorders related to poverty. Issues related to individual versus area-based poverty, relative poverty and the impact of poverty on woman's and child mental health were presented. They found influence of poverty on mental health.
Mahendra et al. (2007) conducted a study in New Delhi, India to evaluate the impact of a stigma-reduction intervention in three large hospitals. Data were collected via in-depth interviews with hospital staff and HIV-infected patients, surveys with hospital workers (884 doctors, nurses and ward staff) and observations of hospital practices. Interview findings highlighted drivers and manifestations of stigma that are important to address, and that are likely to have wider relevance for other developing country health care settings.

These clustered around attitudes towards hospital practices, such as informing family members of a patient's HIV status without his/her consent, burning the linen of HIV-infected patients, charging HIV-infected patients for the cost of infection control supplies, and the use of gloves only with HIV-infected patients. These findings informed the development and evaluation of a culturally appropriate index to measure stigma in this setting. Baseline findings indicate that the stigma index is sufficiently reliable. Higher scores on the stigma index—which focuses on attitudes towards HIV-infected persons—were associated with incorrect knowledge about HIV transmission and discriminatory practices. Stigma scores also varied by type of health care providers—physicians reported the least stigmatizing attitudes as compared to nursing and ward staff in the hospitals. The study findings highlight issues particular to the health care sector in limited-resource settings.

Say and Raine (2007) did a systematic review of inequalities in the use of maternal health care in developing countries. Two decades after the Safe Motherhood campaigns 1987 launch in India, half a million women continue to die from pregnancy-related causes every year. Key health-care interventions can largely prevent these deaths, but
their use is limited in developing countries, and is reported to vary between population groups. They reviewed the use of maternal health-care interventions in developing countries to assess the extent, strength and implications of evidence for variations according to women's place of residence and socioeconomic status. Studies with data on use of a skilled health worker at delivery, antenatal care in the first trimester of pregnancy and medical settings for delivery were assessed. They identified 30 eligible studies, 12 of which were of high or moderate quality, from 23 countries. Results of these studies showed wide variation in use of maternal health care. Differences were caused by factors related to health-care users (e.g. age, education, medical insurance, clinical risk factors) or to supply of health care (e.g. clinic availability, distance to facility), or by an interaction between such factors (e.g. perceived quality of care). Variation was usually framed by contextual issues relating to funding and organization of health care or social and cultural issues. These findings emphasize the need to investigate and assess context-specific causes of varying use of maternal health care, if safe motherhood is to become a reality in developing countries.

**Patra and Anand (2008)** reported homelessness is a problem, which affects not only the people who are homeless but the whole society. This problem is not well recognized among the public health professionals. There is lack of data on the health problems of homelessness from India. There is no special health or social programs or services for this subsection of the society. The existing number of shelters is inadequate and as there are multiple barriers, which prevent them to have proper access to the existing health care system. With the changing social and economic scenario, homelessness is likely to
increase. It is important to recognize homelessness as a public health problem and attempt to target this group for special care in order to promote equity in health system.

**Basu and Sidh (2008)** examined the net effect of work status on women's health and whether the effect persists after controlling for the influence of socio-economic factors. Their hypothesis is that working women face a greater risk of morbidity and mortality, given that most would be expected to shoulder dual responsibilities market and household. The paper also examines whether the risk varies across regions.

In particular, they examine whether the work status-health relationship differs between the southern and northern regions of India, which are known to be distinct in female autonomy. While women in India face many serious health concerns, this analysis focuses on only two issues nutritional status (as measured by body mass index and prevalence of anemia) and reproductive health (as assessed by the presence of reproductive health problems) of women from villages in the study area. Results show that though both work status and socio-economic factors influence health status, the latter are more important; most of the gross effect of work status is due to socio-economic conditions rather than work participation. This calls for policy intervention in providing better health facilities, female education and supplementary nutrition programs for poor women.

**Abhilash and Singh (2009)** examined pesticides play a significant role by keeping many dreadful diseases. However, exposure to pesticides both occupationally and environmentally causes a range of human health problems. It has been observed that the pesticides exposures are increasingly linked to immune suppression, hormone disruption, diminished intelligence, reproductive abnormalities and cancer. Currently,
India is the largest producer of pesticides in Asia and ranks twelfth in the world for the use of pesticides. A vast majority of the population in India is engaged in agriculture and is therefore exposed to the pesticides used in agriculture. Although Indian average consumption of pesticide is far lower than many other developed economies, the problem of pesticide residue is very high in India. Pesticide residue in several crops has also affected the export of agricultural commodities in the last few years.

In this context, pesticide safety, regulation of pesticide use, proper application technologies, and integrated pest management are some of the key strategies for minimizing human exposure to pesticides. This Study confirmed that health care providers must pay due attention to curb health hazards associated with pesticides, though little has been done in this regard.

Jani, Udipi and Ghugre (2009) documented mineral contents iron, zinc, calcium, energy contents and nutrient densities in complementary foods commonly given to young urban slum children. Information on dietary intake was collected from 892 mothers of children aged 13-24 months, using 24 hour dietary recall and standardized measures. Three variations of 27 most commonly prepared recipes were analyzed and their energy (Kcal/g) and nutrient densities (mg/100 Kcal) were calculated. Considerable variations were observed in preparation of all items fed to the children. Cereals were considered staple food with only small amount of vegetables/fruits. Fenugreek was the only leafy vegetable included, but was given to only 1-2% of children. Iron, calcium, zinc contents of staple complementary foods ranged from 0.33 mg to 3.73 mg, 4 mg to 64 mg, and 0.35 mg to 2.99 mg/100 respectively. Recipes diluted with less water and containing vegetables, spices had higher mineral content.
Minerals densities were higher for dals, fenugreek vegetable, khichdi and chapatti. Using the median amounts of the various recipes fed to children, intakes of all nutrients examined especially calcium and iron was low. There is an urgent need to educate mothers about consistency, dilution, quantity, frequency, method of preparation, inclusion of micronutrient-rich foods, energy-dense complementary foods and gender equality.

To sum up it can be said that there are lots of issues that are challenging the health care system of a developing country like India. The major threat can be said to be the lack of dedicated doctors who believe in delivering health care services wherever required. Most of the doctors do not want to practice in the rural areas due to the lack of proper salaries and also due to the fact that urban areas are more rewarding. This calls for the strengthening of the rural areas by building the capacity of the rural health care workers so that rural areas don’t suffer to a very great extent. It has however been noticed that more than the lack of infrastructure, there is a lack of utilization of the available resources for various reasons be it the physical distance or the lack of awareness or simply the lack the motivation to acquire good health. In this regard, it has been noticed that the lower strata of the society neglect health more than the upper and middle classes.

2.3.0 Health Inequality in Karnataka

Karnataka has been a pioneer in setting up the first ever Primary Health Units (PHUs) even before its inception by the central government. But the current scenario of the efficiency of the health care system needs to be discussed further. There exists a gap in
the delivery of the health care system between the urban and the rural areas. Though the state is well known for its health care services yet there are certain discrepancies in the delivery of the health care system. Though the urban areas provide good health care facilities, the rural areas are lagging behind. The basic issues in the health care profile of Karnataka will be discussed in detail in this following section.

_Sholapurkar, Mouli and Gopal (1983)_ who studied 1331 currently married women in the reproductive age group of 15-49 years and 1299 husbands of currently married women in the reproductive age group of 15-49 years in rural areas of Karnataka revealed that about 69 percent of the former and about 70 percent of the latter utilized health and family welfare services available in Government institutions. They have further identified that family welfare is another area where facilities are available but are underutilized. In identifying the people who do not utilize the health and family welfare services, it may be noted that there are people both in rural and urban areas who do not utilize or utilize only rarely the health and family welfare services.

A study conducted in sample villages and taluka head quarter towns in another district of Karnataka by _Devi (1986)_ , revealed that utilization of health and family welfare services available from government institution varied according to the literacy level, occupation and income of the heads of households.

In Karnataka, mothers and children are vulnerable to health inequality due to various socio economic reasons. The literacy rate among women is lower than the men. The
women lack awareness in general and also they are not keen on keeping good health. Health is always neglected especially that of a woman.

**Basit et al (2012)** reported about under nutrition status of children in Udupi taluk of Karnataka state. Though that district belonged to high in human development index (HDI), under nutrition continued due to various factors. The study was aimed at understanding some of the risk factors for under-nutrition in a region with favorable maternal and child health indicators.

The study was carried out among children aged one to five years attending the pediatric outpatient department in six rural health care centers in Udupi taluk of Karnataka in Southern India. A total of 162 children were included in the study, of which 56 were cases. A semi-structured questionnaire was used to interview the caregivers of the children and the nutritional status. Childhood illness, short birth interval and consumption of diluted milk were some of the significant contributory factors noted among the population.

**Kodkany et al (2004)** narrate maternal mortality rates in India are estimated at 560/100,000 live births and postpartum hemorrhage accounts for 35-56% of these deaths. U.S.-Indian collaborative randomized, placebo-controlled, clinical trial conducted in four Primary Health Center areas of Belgaum District, Karnataka, India. They found significant reduction in maternal mortality. This project served as a model applicable to rural settings throughout the developing world for improving delivery practices and reducing maternal mortality and morbidity through supplying essential medicines.
George (2007) explored issues of rural women with obstetric complications accessed health providers in Koppal, the poorest district in the state of Karnataka, south India. Weak information systems, discontinuity in care, unsupported health workers, haphazard referral systems and distorted accountability mechanisms were identified as critical service delivery problems.

For example, maternal deaths were under-reported and not reviewed, antenatal care and institutional delivery were not linked to post-partum or emergency obstetric care, and health workers use inappropriate injections but don't treat anaemia or sepsis. Families wasted valuable time and resources accessing health care providers but fail to get effective care, and blame was laid on lower-level health workers and women for not accessing institutional delivery. Author recommended critical managerial changes in service delivery.

Adamson et al (2012) conducted a population-based survey among 16 randomly selected rural villages in rural Mysore District in Karnataka, India between August and September 2008. All households in selected villages were enumerated and women with children 6 years of age or younger underwent an interviewer-administered questionnaire on antenatal care and institutional delivery. Institutional deliveries in rural areas of Mysore District increased from 51% to 70% between 2002 and 2008. While increasing numbers of women were accessing antenatal care and delivering in hospitals, large disparities were found in uptake of these services among different castes. Mothers belonging to general castes were almost twice as likely to have an institutional birth as compared to scheduled castes and tribes. Mothers belonging to other backward caste or
general castes had 1.8 times higher odds (95% CI 1.21, 2.89) of having an institutional delivery as compared to scheduled castes and tribes. In multivariable analysis, which adjusted for inter- and intra-village variance, Below Poverty Line status, caste, and receiving antenatal care were all associated with institutional delivery. Strategies for overcoming these barriers may include sensitization of healthcare workers, targeted health education and outreach, and culturally appropriate community-level interventions.

Pathak & Murthy (1987) reported there was a reduction in the relative contributions to the total fertility of the 25-44 age groups of women, but there was an increase in the relative contributions in the 20-34 age groups of women over time. While the relative contributions to the total fertility at the 15-19 and 35-44 age groups were much higher in the rural than in the urban areas, it was different in the case of the 30-34 age group. In the case of Kerala, Punjab, Karnataka (1980), and Gujarat (1981), the urban contributions to the fertility in the 15-19 ages were observed more in urban than in rural areas. More than 60% of the decline in the overall fertility of the selected states in both rural and urban areas was due to an increase in the acceptance of deliberate fertility control practices. The impact of the effect of increasing marriage age on a fertility decline was modest in both rural and urban areas.

Rajan, Mishra, & Sarma (2001) examined the health situation among elderly from two sets of independent sources. National Sample Survey in its 42 Round (July 1986-June 1987) canvassed a nationwide survey covering 50,000 households in 8312 villages and 4546 urban blocks in India to understand the socio-economic profile of aged
persons. Secondly, an aging survey (1993) was conducted in Tamil Nadu, Kerala, Gujarat, and Karnataka states in India by the authors to study the elderly life in terms of general feeling, living arrangements, living support, social security, health, nutrition, their involvement in social and religious matters, views of old age homes and particularly life preparatory measures. The survey was based on interviews with about 2,253 persons aged 60 years and above, of whom 1325 are males and 928 are females. They found insufficient care for elderly.

Skariyachan et al (2012) argued urbanization and industrialization increased the risk of pollution in Bangalore, India. The disposal of sewage into natural water bodies became a serious issue. Byramangala reservoir is one such habitat enormously polluted in South India. Many pathogenic bacteria were characterized and most of them were found to be multidrug resistant. Present study revealed that Byramanagala tank has become a cesspool of multidrug-resistant "superbugs" and will be major health concern in South Bangalore, India. The study one of studies highlighted impact of pollution and health risks.

Avvannavar, & Shrihari (2008), they found that the water quality of Netravathi varied from moderate to poor. It was observed that the impact of human activity was severe on most of the parameters. The pollution exceeded the tolerable limits at almost all the stations. It was observed that the main cause of deterioration in water quality was due to the lack of proper sanitation, unprotected river sites and high anthropogenic activities.

Shiva, M. (1992) studied impact of environmental degradation and chemicalization on health. Degradation of the water supply was caused by overuse of water for cash crops,
contamination of water by night soil, and improper disposal and piping of sewage. The resulting water-borne diseases, such as cholera, were then mistreated by giving children anti-diarrheal drugs that keep the germs in the body. Bottling of mineral water further reduced the supply for the poor. People should instead put bottles of water in the sun or use wood apple or drumstick seeds to purify water.

Chemicalization of the environment resulted in major disasters such as Mina disease, the Bhopal disaster, the Bichri acid drinking water tragedy, crippling of youths in Karnataka by pesticide-poisoned crabs, and poisoning by use of pesticide containers for food.

Poverty has a direct impact on the health. Poverty limits people to access the health care services. Bhojani et al. (2012) considered the burden of chronic conditions is on the rise in India, necessitating long-term support from healthcare services. Healthcare, in India, is primarily financed through out-of-pocket payments by households. Considering scarce evidence available from India, our study investigates whether and how out-of-pocket payments for outpatient care affect individuals with chronic conditions. A large census covering 9299 households was conducted in Bangalore, India. Of these, 3202 households that reported presence of chronic condition were further analyzed. Data was collected using a structured household-level questionnaire. The response rate for the census was 98.5%. Overall, 69.6% (95%CI=68.0-71.2) of households made out-of-pocket payments for outpatient care spending a median of 3.2% (95%CI=3.0-3.4) of their total income. Overall, 16% (95%CI=14.8-17.3) of households suffered financial catastrophe by spending more than 10% of household
income on outpatient care. Occurrence and intensity of financial catastrophe were inequitably high among poor. Low household income, use of referral hospitals as place for consultation, and small household size were associated with a greater likelihood of incurring financial catastrophe. The out-of-pocket spending on chronic conditions doubled the number of people living below the poverty line in one month, with further deepening of their poverty. In order to cope, households borrowed money (4.2% instances), and sold or mortgaged their assets (0.4% instances). This study provided evidence from India that the out-of-pocket payment for chronic conditions, even for outpatient care, pushes people into poverty. Findings suggested that improving availability of affordable medications and diagnostics for chronic conditions, as well as strengthening the gate keeping function of the primary care services are important measures to enhance financial protection for urban poor.

Bellad et al. (2012) Consanguinity is widely observed in Indian culture and in the study attempted to determine whether consanguinity adversely influenced pregnancy outcome in South India, where consanguinity was a common means of family property retention. Data were collected from a prospective cohort of 647 consenting women, consecutively registered for antenatal care between 14 and 18 weeks gestation, in Belgaum district, Karnataka in 2005. Three-generation pedigree charts were drawn for consanguineous participants. Overall, 24.1% of 601 women with singleton births and outcome data were consanguineous. Non-consanguineous couples had fewer stillbirths (2.6 vs 6.9% P=0.017; adjusted P=0.050), miscarriages (1.8 vs 4.1%, P=0.097; adjusted P=0.052) and lower incidence of birth weight <2500 g (21.8 vs 29.5%, P=0.071, adjusted
P=0.044). Gestation <37 weeks was 6.2% in both the groups. Adjusted for consanguinity and other potential confounders, age <20 years was protective of stillbirth (P=0.01), pregnancy loss (P=0.023) and preterm birth (P=0.013), whereas smoking (P=0.015) and poverty (P=0.003) were associated with higher rates of low birth weight.

2.4.0 Categorization of Inequalities in Health Care

It has been discussed that inequalities do exist in the system of health care and its delivery but the situation is not so easily understandable. Not only do inequalities exist, they also find various other parameters to make these inequalities doubly and sometimes triply challenging. This section is an effort to understand the types of inequalities in the delivery of health care systems.

2.4.1 Gender based Inequalities

Gender based inequalities are perhaps the most commonly noticed discrepancies in the delivery of the health care system. In any society, the women are more vulnerable in terms of health and therefore there is an inherent need for a system of health care which should be able to respond to the needs of the women. Since women are entitled to child birth and since that is a very crucial period to the health of any woman, the health care system is supposed to cover all contingencies that might arise during these periods. But sadly, the health care system of India is such that they hardly cater to the needs of the women. The rural women are doubly challenged because they are so far away from any available health care facilities resulting in a high rate of maternal mortality, child
mortality, ill health among the women and children. The following section will explain the level of inequality existing in India on the basis of gender.

According to Barbara Crossette (2005) Though Millennium Development Goals have been developed and special emphasis has been given to maternal health and other related issues, the implementation of such goals have been very loose and ineffective to a great extent. The health of pregnant women is always neglected and the maternity is seen to be of no importance. There is a general lack of cleanliness and hygiene resulting in a high rate of maternal mortality. This also can directly or indirectly be resulting due to the inequalities in reaching out of the health care system.

Aditi Iyer (2005) argues that it is a well-known fact now that the health reforms, policies and the programs of the government have aided and supported only the higher and the middle classes of the society, leaving the lower classes at the mercy of ill-efficient public sector hospitals in her work “Gender, caste, class, and health care access Experiences of rural households in Koppal district, Karnataka”. In this context, women faced a multi-faceted inequality as they had almost negligible access to health care which ever strata of society they belonged to. Men, of course had partial access to health care in case of short-term illness while they did not have access to quality health care in the case of long-term illness (over a period of 2 years). The males of a higher class had an advantageous position in this regard as they have access to health care facilities both public and private in nature where as women face a double or sometimes triple discrimination in the process of acquiring health care. Overall, the barrier to the access of quality health is economical in nature as the people in need of health care are
not in a position to pay for the services and the other contributing factor is the lack of awareness on the part of people. In most cases illness is ignored and hospitals or clinics are not even approached.

_Gita Sen and Piroska Ostlin (2007)_ argue that men and women have differential needs and therefore the right approach would be to answer their needs differently.

They point out that the major reason for a gender biased approach in health care is due to the fact that “women are treated as objects rather than subjects” and they hardly participate in the processes which determine the provision and implementation of quality health care like policy making, legislation on the outside and as health care workers, care givers on the inside. To make health care system gender equal participation of women in these fields must be encouraged.

The other aspect that has been suggested is that the general attitude of people towards gender sensitivity must be changed. This can be done by working with boys and men to change patriarchal notions embedded in them into more gender equal notions.

This gender bias exists not only in the delivery of health care but also in health research. Generally in health research, samples are collected only from male subjects and the female subjects are left out of the ambit of research as suggested by Ellen Annandale and Kate Hunt (2000). In this case therefore gender sensitive data is not present and gender equity in health care suffers a setback. Working towards gender equality in health care therefore, challenges long standing patriarchal power structures and the comfort zones of the patriarchal norms of the society at large. The only way to make health care systems equal is to change the power structures within the society by targeting the mind set of people and making them believe in gender equality. World
Health Organization, The Prevalence of Anemia in Women a Tabulation of Available Information (Geneva World Health Organization, 1992) The survey recorded weight and height for women and children. Children who were especially short for their height were defined as stunted. Those that were especially light for their height were defined as wasted. Those who were especially light for their age were defined as underweight. Anemia was defined based on levels of blood hemoglobin. For women, anemia and severe anemia was based on a blood hemoglobin level of less than 12.00 g/dL and 7.00 g/dL, respectively. For children, the analogous cut-off levels for anemia and severe anemia were less than 11.00 g/dL and less than 7.00 g/dL, respectively.

**Victoria A. Velkoff and Arjun Adlakha (1998)** in their article ‘Women’s Health in India’ put forth the situation of Indian women. Usually the contribution of a woman to the family is ignored and she is treated as an economic burden. Since there is a preference of the male child over the female, the health of the female child is always neglected. Women usually have no autonomy and they are always placed under the male members of the family in the patriarchal system of family. Their contribution to the formal labor force also is low as they manage jobs which only pay them less even if the work done is equal to the males (Chatterjee, 1990; Desai, 1994; Horowitz and Kishwar, 1985; The World Bank, 1996). This has an overall negative impact on the psychology and the health of women and it is an established fact that if the mother is unhealthy, the child borne by her has low birth weight and a greater chance of death in the initial years of infancy. Since there is a preference of a male child, woman is sometimes forced to bear more children just to get a male heir therefore corroding away the mother’s health as well as the health of the offspring (Jejeebhoy and Rao, 1995).
Very few women receive pre-natal care and even during the time of delivery, they are not taken to the hospitals because their relatives do not feel that it is necessary to take them to the hospital. Along with all this, dowry deaths, violence against women are on a rise and the system of health care hardly supports women in this case.

**Guang-zhen Wang and Vijayan K. Pillai (2001)** Looking at the socio-economic aspect of health care, they argue that, there is still a “social class-health status gradient” which has persisted over time though there has been a considerable socio-economic development. The rates of mortality also are inversely proportional to the social class that a person belongs to. This can be directly linked to the way health care system reaches out to the people of the society, where only the rich can afford quality health care and the poor are forced to resort to the state-run medical system which is to a great extent incapable of meting out quality health care. The vulnerable groups of the society like women and children are also affected negatively and this in turn also reduces their span of life and increases the rates of mortality. It is argued that reproductive health of women depends to a great degree on the social status of women. In this regard if the woman is able to make decisions in her life especially regarding her reproductive choices, the health of the mother as well as infant is recorded to be healthier (Misra et al. 1995; Elstad 1996; Defo 1997).

**Shah (2003)** studied gender issues and oral health in elderly Indians. Gender disparity in health and diseases is increasingly being recognized. Therefore, it was decided to investigate gender differences in the elderly subjects (60+ years) from a community-based study. The study was undertaken to evaluate the oral health status and treatment needs of urban and rural elderly and to study the impact of socio-demographic variables
on them. An urban area in South Delhi and its adjoining four villages was selected. A modified WHO-Oral Health Survey proforma and Rup-Nagpal's scale were used to record oral health and socio-demographic data respectively. In addition, diet pattern (vegetarian/non-vegetarian) and body mass index were also recorded.

Chi square test and p values were calculated for each of the studied parameters. There were significant differences for socio-economic status, literacy level, marital and family status between elderly men and women (p<0.0001). However, there were few differences found in the prevalence of dental caries, periodontal diseases and edentulousness between elderly male and female (p>0.01). The only difference found was in the evidence of previous dental treatment received. Elderly men had a higher percentage of filled teeth and denture wear compared to elderly women (p<0.01).

Women's oral health is significantly influenced by social and economic factors. **Jacob et al. (2006)** addressed the issues of gender discrimination in health care and improve the status of women in the Kaniyambadi Block, Vellore, Tamil Nadu, India. The many schemes that are specifically for women and general projects for the community from which women can also benefit represent a multi-pronged approach whose aim is the improvement of women's health, education and employment in the context of community development. However, despite five decades of work with a clear bias in favor of women, the improvement in health and the empowerment of women has lagged behind that achieved by men. This is because the community, with its strong male bias, utilizes the health facilities and education and employment programs more for the benefit of men and boys than women and girls. The article argues for a change of approach, in which gender and women's issues are openly discussed and debated with
the community. It would appear that nothing short of social change will bring about an improvement in the health of women and a semblance of gender equality in the region.

Sethuraman, Lansdown, and Sullivan (2006) found in Karnataka based study, moderate malnutrition continues to affect 46% of children under five years of age and 47% of rural women in India. Women's lack of empowerment is believed to be an important factor in the persistent prevalence of malnutrition. In India, women's empowerment often varies by community, with tribes sometimes being the most progressive. This study in rural Karnataka, India, included tribal and rural subjects and used both qualitative and quantitative methods of data collection. Structured interviews with mothers were performed and anthropometric measurements were obtained for 820 mother-child pairs. The data were analyzed by multivariate and logistic regression. Some degree of malnutrition was seen in 83.5% of children and 72.4% of mothers in the sample. Biological variables explained most of the variance in nutritional status, followed by health-care seeking and women's empowerment variables; socioeconomic variables explained the least amount of variance. Women's empowerment variables were significantly associated with child nutrition and explained 5.6% of the variance in the sample. Maternal experience of psychological abuse and sexual coercion increased the risk of malnutrition in mothers and children. In addition to the known investments needed to reduce malnutrition, improving women's nutrition, promoting gender equality, empowering women, and ending violence against women could further reduce the prevalence of malnutrition in this segment of the Indian population.
Das, Hussain, Nasare and Bharadwaj (2008) summarize cervical cancer is the most common cancer and a leading cause of cancer deaths among women in developing countries. The disease is caused due to persistent infection of one or more of about 15 high-risk human papillomaviruses (HR-HPVs), most commonly by HPV types 16/18.

In India, over 98% of cervical cancer cases harbor HPV infection and HPV 16 is the type exclusively (80-90%) prevalent. Unlike the West, HPV infection is most common in women in their third decade (26-35 years) of sexual activity and invasive cancer also arises much later with a peak at about 45-55 years of age. Recently, two successful prophylactic HPV vaccines, a quadrivalent (HPV16/18/6/11) 'Gardasil' by Merck and a bivalent (HPV16/18) 'Cervarix' by GSK have been developed. Several other approaches including plant-based edible, pentameric capsomere-based intranasal and DNA-based vaccines have also been employed to develop prophylactic vaccines. Also, several therapeutic vaccines either protein/peptide based or DNA based are in clinical trials but are yet to establish their efficacy. Though there are several issues regarding implementation of the already developed vaccines in resource limited countries, efforts are being made to develop cost-effective second-generation vaccines. If cost minimized, HPV related new technologies involved in screening tests and vaccines are expected to reduce incidence of cervical cancer and deaths it causes in women from developing countries.

Hazarika et al (2009) found that though there have been consistent interventions to address public health concerns in the past, there exists a need for a contemporary framework to appropriately use modern legal tools for complex health challenges. They identified a checklist of imperative indicators to assess whether public health
legislations would be an effective form of intervention to bring about the desired social change. Despite advances in understanding pathogenesis, the economic, social and legal constraints in India continue to make women particularly vulnerable to infections (Solomon, Buck, Chaguturu, Ganesh, & Kumarasamy, 2003).

To conclude it can be said that the patriarchal norms of the Indian society act as a deterrent to the health and the status of women in the society. The bias is such that a large chunk of the resources of the society is used for the male population while the female population is neglected in general. There is a lack of proper education among females and therefore the level of awareness among them also is lacking. As a result they suffer from ill health, malnutrition, poor reproductive health and in many cases, untimely death. Even the health care system does not respond to their needs and requirements.

2.4.2 Income Based Inequalities

It has become a more or less common notion that health care is a privilege enjoyed only by the rich and well to do in the society. There is a prevalent discrimination in the health care system in terms of the quality of services that the higher income groups can afford and those which the lower and marginal income groups can afford. There has been a long standing debate as to who actually reaps the benefits of the health system and it has been proven that the people or the group of people who should be insured under the health care system are the ones who benefit the least from the system of health care. The following section will throw more light on this particular area.
Gwatkin D, Ruststein S, Johnson K, Pande R and Wagstaff (2000), have stated that Health Inequalities have been revealed in the poor children such as high mortality rates, as compared to children of wealthier families, as well as, significant barriers have been found in the process to accessing quality health care as faced by the ethnic minorities. The higher income groups are always at a better position to bargain for better health care facilities than the people of lower income groups. The standard of living of higher income groups as compared to the lower income groups is better and therefore the overall health condition is also comparatively much better leading to better survival rates of the mother as well as the child, fewer incidences of communicable and non-communicable diseases and so on. There is a consistent lack of regulation has an important impact on the quality of care. With high levels of absenteeism among health staff, insufficient availability of medications and inadequate training among practitioners, offered generally to the poor on the one hand, and the best care and technologies available for the small, wealthy proportion of the population and even foreigners on the other hand (Srinath Reddy et al. 2011; Peters et al. 2002; Rao et al. 2011; Banerjee, Deaton and Duflo 2003; Banerjee &Duflo 2006; Chaudhury et al. 2006; Das & Hammer 2007).

Sebastian Irudaya Rajan and K.S. James, eds., Demographic Change Health Inequality & Human Development in India (New Delhi Hyderabad and Manohar Press, 2004) India’s apex planning body has dedicated two recent five-year plans to strengthen redistribution policies to address inequalities in the society. The recent five-year plan framed by the Indian government, for instance, aimed to provide essential primary health care to reach underserved and underprivileged populations and also to devolve
funds and implement decentralized planning. But progress has clearly been slow and recent policy documents have restated the need to strengthen further these measures towards a “new vision of growth.”

Part of the problem lies in the understanding of the issues and challenges at hand. Social policy and programs in India, including in public health, have traditionally been driven by development priorities set by the poverty debate, with a focus on the poorest. Welfare policies in India have tended to focus on instruments of affirmative action and have aimed overwhelmingly at initiating social programs to redistribute jobs and housing or intermediate inputs such as education and health. The government’s flagship anti-poverty programs since the 1970s—such as job creation plans for the rural landless, food security, training of rural youth, and micro credit schemes through self-help groups—have been aimed at poor households and have been often limited by poor local governance and limited coverage.


Poor health behaviors include smoking and chewing tobacco or drinking alcohol. Standard of living, education, and caste were strongly related to consumption of tobacco or alcohol. Individuals in the lowest quintile of standard of living or having no formal education were three times more likely to consume tobacco or alcohol. Important differences were also observed by caste. Scheduled tribes were considerably more likely to consume tobacco or alcohol as compared to other castes. The odds of consuming tobacco, alcohol were also higher
among scheduled caste, compared to other castes. Marked gender differences were observed with men being substantially more likely to consume tobacco or alcohol as compared to women. Religious affiliation and urban–rural difference were not related to the probability of tobacco or alcohol consumption.

S V Subramanian, Ichiro Kawachi, George Davey Smith (2007) ‘Income inequality and the double burden of under and over nutrition in India’ put forth that over-nutrition and under-nutrition in India happens not because of scarcity of resources but due to the misdistribution of resources. This can be directly referred to the misdistribution of resources among the rich and the poor. In the context of developing countries like India, there can been a considerable amount of research to prove that while the lower income groups suffer from under-nutrition, the higher income groups have a tendency towards over-nutrition simply because of the fact that people of the higher income groups have the luxury of purchasing not only their calorific needs but also an excess whereas, lower income groups have a difficulty in meeting their basic calorie requirements. Therefore income inequality is the contextual variable in this case. This income inequality also suggests an inefficient and less responsive public distribution system which not only creates disparities but also maintains and perpetuates them, more for the worse.

Arun Shourie in his article ‘Growth, Poverty and Inequalities’ suggests that though developing countries like India, Ceylon and Sri-Lanka have shown considerable growth rate which is sometimes even shocking, but this growth rate however fails to indicate overall well being as this kind of development simply sustains the gap between the rich and the poor by making the rich even richer and the poor, poorer. He argues that if inequalities have to be eradicated, “direct attacks” on poverty have to be launched in
terms of policy making, legislation and implementation so that the misery of the poor and the marginalized are targeted and resolved. In this regard, just massive and expensive programs will not make a difference.

The corner-stone to achieve equity would be to initiate and bring about ‘political transformations’ and ‘drastic economic redistributions’ so that the system of resource distribution becomes fair and sound and responsive to the poor as well as the rich.

**Akash Acharya and M. Kent Ranson (2005)** have conducted a case study of communities in Gujarat and the pattern of expenditure on ill-health and its effects on the status of employment of the poorer sections of the society. Expenditure on health is often unexpected and in the current scenario can be colossal in nature even considering the rise in cost of health care. This burden is in fact heavier for the poorer sections of the society. On one hand poor sections of the society reside in places which are cut off from the main city areas especially the remote and interior rural areas. The result is that they do not have access to these health care facilities as there are located at far distances and therefore they have to rely on quacks and private clinics for any illness, which in most of the cases are unqualified and provide poor quality of services. On the other hand, quality health care is out of their reach since they cannot afford to pay for the services specially those provided by private health care institutes. The burden is thus realized in two major ways

i.) They have to spend huge amounts for treatment of illnesses, which often push them into lifelong poverty thereafter.

ii.) During the period of illness and for a while post illness, people are unemployed and their means of livelihood also becomes insecure.
The lower income groups also have a fairly high burden of indirect costs realized in terms of lost wages during the time of illness, travelling charges, expenses borne to get access to the proper channel of treatment, expenses of attendants (Sodani 1997). To meet these expenses and other household expenditures later on, often people of lower income groups have to take loans, sometimes at high rate of interests which they are not able to pay back later on leading to heavy indebtedness (World Bank 2002). Debts are usually taken from wealthier relatives or friends (which in certain cases may be loan free) or village money lenders, co-operative banks, insurance companies and employers. Pay back of these loans becomes increasingly difficult post-illness leading people to fall into the vicious cycle of poverty. No medical insurances cover people of lower income groups in any case. Poverty therefore keeps on grinding them.

This preceding discussion would therefore bring us to the argument being placed by Rajeev Ahuja (2004) The government of any country funds health care facilities in the following ways

i.) Public financing through taxation: Though the government is the largest service provider and forms the basic infrastructure, quality is something that is debatable in case of the services provided by the government.

ii.) Private financing through insurance: The services provided by the private sector can be said to be qualitatively safe but they have market risks and the problems of payment of premiums.

In the case of lower income groups therefore private financing or insurance was never thought of as an option since they were not trusted to be able to pay off the premiums. Therefore it was the responsibility of the government to provide free and quality health 96
care services to the poor. This model of free health care services however did not work well in many states of India specifically due to shrinking budget allowances, low quality of services, inefficient staff and so on.

For this very reason, the author argues for the need of health insurances among the poor as well. Firstly, since the insurances demand only small amounts of contributions from time to time, it has been argued that even the poor can manage such contributions without much of a problem. Secondly, since with health insurance, people can approach either the public or the private sector, the kind of competition can help in the improvement of services being provided. Thirdly, insurance can be used as a tool to promote certain behaviors like family planning etc. when talking about low income groups, the attention of the government focuses only on the population Below Poverty Line. However such insurance schemes are beneficial for the vast range of population slightly above the poverty line which is neglected by the government and the rest. The BPL population however needs to be supported by the government.

**LaticanP, Gladwin and Seale Jr. (1996)** have pointed out in their Alternative theories of Development that the concept of rural to urban migration has an effect on the structure of income inequalities in these areas. While income inequalities are seen to be decreasing in the rural areas, the pattern of income inequalities is different in the case of urban areas. In urban areas, the income inequalities first show a steady rise and then they record a declining trend. As an answer to this proposition, the explanation could be given in two possible ways. The migrants from rural areas can be belonging to the two extremes of income distributions, which suggests that either the migrants would be belonging to the rich and educated section of the rural society and might be ‘pulled into’
the urban areas due to the better opportunities and the so called bright lights of the urban areas.

On the other hand, the migrants might be belonging to the poorest section of the rural society and they might be simply pushed out of the rural areas due to very low incomes.

Both these scenarios lead to the dynamism of the changing trends in the patterns of the urban income disparities. As rural workforce migrates out, the rural income disparities are reduced to an extent. The second case results in the increase of income inequalities in the urban areas as the increase in the number of migrants without proper jobs would mean greater income disparities at first and then as these migrants become a part of the urban workforce, the disparities in income generally are lowered down tus stabilizing the effects of migration.

**Ghosh and Bharati (2005)** studied the interrelationship of women's status in terms of socioeconomic inequality and its effect on women's health at micro level between two ethnic groups in a periurban area of Kolkata City, India. One-hundred twenty-seven women who belong to a tribal population (Munda) and 174 women who belong to a caste population (Poundrakshatriya) participated in this study. They found significant differences between various (socioeconomic, demographic, diet intake, and body mass index [BMI] factors among the two ethnic groups that indicated a better situation for the Pod women. The number of live births, dietary intake and BMI of the women of the two ethnic groups varied differentially among socioeconomic factors, such as women's education and working pattern and poverty level of the household, which are the most recognized measures of women's status. Thus, the diverse socioeconomic status in
various cultural groups in traditional Indian societies reflects a more complex situation of women's status and their health. Different factors were responsible for the differential health status of women, which is culture and location specific. Women who are more educated and employed are not necessarily healthier, since poverty remains an integral factor, base on which literacy and employment status of women in India is determined. Furthermore, suppression of women is rooted in the very fabric of the Indian society, in tradition, in religious doctrine and practices, within the educational systems, and within the families. Along with education, therefore, income-generating schemes for the women of the economically deprived population should be strengthened to bring equality in overall health status of a region that consists of diverse cultural populations with vast economic disparity.

Dipankar and Peters (2007) examined the impact of quality improvements in conjunction with user fees on the utilization and equality of outpatient services at a range of public sector health facilities in India. Project impact on outpatient visits was estimated via the difference-in-difference method using pooled time series visit data from project and control facilities. The results indicate that the quality improvements significantly increased visits at all facility types. The project effect was largest at primary health center (PHC) and community health center (CHC), followed by district hospital (DH) and female district hospital (FDH). Pro-rich inequalities in outpatient visits increased at DHs and FDHs while at CHCs and PHCs the distribution remained equitable. This suggests that quality improvements at public sector health facilities can
increase utilization of outpatient services in the presence of nominal user fees, but can also promote greater inequality favoring the better-off.

At the referral hospital level, quality improvements should be made in conjunction with programs which encourage utilization by the poor. In contrast, the benefit of quality improvements at PHCs and CHCs is equitably distributed.

Kapur (2007) conducted an economic analysis of diabetes care. Many socio-economic factors and health care system related issues impact the outcome of diabetes and consequently its costs and vice versa. Factors that influence delay in diagnosis also determine complication rates and thus costs. Presence and severity of complications as well as co-morbid conditions are the most important determinants of treatment and monitoring regimen as well as the need for hospitalization and are therefore important factors related to costs. The average annual direct costs of hospitalized patients are more than double to those not hospitalized. Complications are also responsible for indirect costs in terms of productivity loss and absenteeism. Studies show that the cost of providing routine care is only a fraction of the overall costs and is perhaps still manageable; however when this is not available or its quality is poor the overall direct and indirect costs, escalate with disastrous health and economic consequences to the individual, his family and society. Effective intervention means prevention both primary (health promotion and awareness) as well as secondary prevention (reducing the burden of complications by early diagnosis and effective care). Everyone involved in diabetes care need to be aware of what drives cost proper effective treatment of diabetes is not but not treating diabetes or treating it ineffectively is very costly.
Miljeteig et al (2009) examined the impact of economics on end-of-life decisions in an Indian neonatal unit. Qualitative in-depth interviews, field observations, and document analysis were conducted at an Indian nonprofit private tertiary institution that provided advanced neonatal care under conditions of resource scarcity. Compared with American and European units with similar technical capabilities, the unit studied maintained a much higher threshold for treatment initiation and continuation (range 28-32 completed gestational weeks). They observed that complex, interrelated socioeconomic reasons influenced specific treatment decisions. Providers desired to protect families and avoid a broad range of perceived harms they were reluctant to risk outcomes with chronic disability; they openly factored scarcity of institutional resources; they were sensitive to local, culturally entrenched intra familial dynamics; they placed higher regard for "precious" infants; and they felt relatively powerless to prevent gender discrimination. Formal or regulatory guidelines were either lacking or not controlling. In a tertiary-level academic Indian hospital, multiple factors external to predicted clinical survival of a preterm newborn influence treatment decisions. Providers adjust their decisions about withdrawing or withholding treatment on the basis of pragmatic considerations. Numerous issues related to resource scarcity.

Jha (2009) reported of the 1.5 million people of South Asia, a large number live in extreme poverty in rural urban areas and have limited access to health care. End-stage renal disease (ESRD) is a devastating medical, social, and economic problem. Lacks of registers prevent an accurate assessment of the incidence or prevalence of End Stage
Renal Disease, but a recent population-based study assessed the age-adjusted incidence at 232 cases per million populations per year.

End Stage Renal Disease treatment facilities are available only in major cities, requiring many patients to travel long distances to seek care. Many patients never come to medical attention. A large number presents with a short history of End Stage Renal Disease which had undetermined etiology and often require emergency dialysis. Non-availability of health insurance limits the ability of patients to afford costly End Stage Renal Disease care. The quality of chronic dialysis is dictated mostly by non-medical, financial factors. Maintenance hemodialysis (HD) facilities are scarce. Chronic peritoneal dialysis is not cheaper than HD; high cost and nephrologist’s bias have limited the growth of peritoneal dialysis in South Asia. Transplants using organs from a related donor is the only viable form of renal replacement therapy for the majority. Cost issues and lack of an effective deceased donor program have limited its availability. Improvement in End Stage Renal Disease care would require strong support from the government, awareness on the part of the medical community of the need of timely referral of these patients to the nephrologists, appropriate pre-dialysis education and development of a network of integrated End Stage Renal Disease treatment facilities for optimal utilization of all forms of renal replacement therapy so that the outcomes of these patients can be improved.

There is no doubt in the fact that the richer have better access to health care than the poor. The rural areas as well as the urban slums where the poor generally reside usually have no proper access to health care facilities and thus, they suffer from ill health. The
unhygienic conditions of living and the vices that the poor are generally associated with lead to their low standards of health.

Due to the lack of proper orientation the poor usually neglect ill health till a point when ill health actually hinders their capacity to work and they become unemployed pulling them back to the vicious cycle of poverty.

2.4.3 Area Based Health Inequalities

India is characterized by huge regional diversities as well as geographical diversities. Certain areas are well endowed and are developed while some areas termed as remote and interior, never see the lights of development. The populations residing in such areas face various disadvantages in terms of geographical distances to and from basic amenities like health care services, hospitals, schools and other basic services. The most commonly noted differentiation is that between the rural and the urban areas. The rural areas are less developed in every sense and the urban areas though developed face a lot of problems in terms of migration from rural areas, creation of slums and other vices. The following section will deal with this in detail.

According to Jenifer Hamil-Luker and Angela M. O'Rand Inequalities in health in the rural as well as the urban areas cause certain problems among people which hampers reproductive health among people in the long run. Often as there are gender biases in terms of delivery of the system of health care that there are risks and dangers associated to the stages of latency and gestation in pregnancy. Often risks of high rate of heart diseases like weak heart conditions, risks of heart attacks in early childhood years etc can be directly linked to the system of problems in delivery of health care to all sections of the society.
Chadha, et al (2005) studied average annual risk of tuberculosis infection in India. Estimates of the prevalence of tuberculosis infection among children 1-9 years of age were available for four defined zones of India from a recently concluded tuberculin survey. These were pooled together and the average annual risk of infection in the country was computed as 1.5%. It was higher in urban areas, at 2.2%, than in rural areas, at 1.3%. The results call for further intensification of tuberculosis control activities, especially in urban areas, greater involvement of private practitioners and information, education and communication (IEC) for high-risk groups, to reduce the diagnostic and treatment delay thereby reducing the transmission of infection in all settings.

Bhatia and Cleland (2004) compared components of quality of care provided to female outpatients by practitioners working in the private and public sectors in Karnataka State, India. Consultations conducted by 18 private practitioners and 25 public-sector practitioners were observed for 5 days using a structured protocol. Private practitioners were selected from members of the Indian Medical Association in a predominantly rural sub-district of Kolar District. Government doctors were selected from a random sample of hospitals and health centers in three sub-districts of Mysore District. A total of 451 private-sector and 650 public-sector consultations were observed; in each sector about half involved a female practitioner. The mean length of consultation was 2.81 minutes in the public sector and 6.68 minutes in the private sector. Compared with public-sector practitioners, private practitioners were significantly more likely to undertake a physical
examination and to explain their diagnosis and prognosis to the patient. Privacy was much better in the private sector.

One-third of public-sector patients received an injection compared with two-thirds of private patients. The mean cost of drugs dispensed or prescribed were Rupees 37 and 74 in public and private sectors, respectively. Both in terms of thoroughness of diagnosis and doctor-patient communication, the quality of care appear to be much higher in the private than in the public sector. However, over-prescription of drugs by private practitioners may be occurring.

**Mark R. Montgomery and Paul C. Hewett (2005)** There is a close connection between inequalities in health and the spread of communicable and other diseases related to problems of cleanliness and sanitation. The two areas which compete with one another to be at the highest recorded areas in terms of these diseases are urban slums and rural areas. The slums are the dens of communicable diseases but though they have access to all urban amenities, they lack resources and therefore can not avail expensive health care facilities. The way health care system has reached out to the poor is thus questionable as the same problem prevails at the rural level where people do not even have the access to health care facilities.

**Abdul Salam, S.A.Siddiqui (2006)** have taken up the example of region based differences in the delivery of health care system specially in context of access of health care facilities for pregnant women at the time of deliveries. The women living in rural areas and belonging to the lower socio-economic stature, majority of times have not
availed health care facilities and have preferred deliveries at home sometimes using the services of mid-wives and other unprofessional staff.

The reason for not availing health care facilities as sited are

i.) These facilities are out of reach of rural people especially at odd times of the day owing to the physical distance of these facilities.

ii.) Delivering the child at home is cost effective since the health of the woman is often neglected.

iii.) The facilities that are available within reach either are non-functional or they lack efficiency.

‘Inequities in Access to Health Services in India Caste, Class and Region’ presented by Rama Baru, Arnab Acharya, Sanghmitra Acharya, A K Shiva Kumar and K Nagaraj(2010) throws light on the fact that the rural areas always suffer from the problem of unavailability of resources because of the fact that medical practitioners do not want to provide their services in rural areas concentrating on urban areas only. The result is that the rural areas are never covered under various services especially vaccinations, de-worming etc. Overall the rural areas are deprived of all amenities for quality health care services as compared to the urban areas.

‘Poverty and Development Characteristics of Less-Developed Regions in India’ by C.H. Hanumantha Rao brings out the fact that area and region wise India is a huge nation and therefore single strategies for the development and betterment of areas may not suffice and cater to the needs of all the regions and areas. The need therefore is to establish area
sensitive strategies which can cater to the needs of particular areas and bring about development in the region.

In the context of achieving equity, the same pattern must be followed so that the areas lacking in facilities are more stressed upon and are made strong in terms of infrastructure so that they are able to support the population of the area without the help of external agencies.

The general tendency that has been noticed over the time is the fact that the rural areas in India usually are poverty stricken and even if they are well to do, the overall standard of living is low due to the absence of the various infrastructural facilities. Therefore there is an inherent inequality present between the urban and the rural areas. The government has taken various steps to reduce these inequalities and to bring rural areas on par with the urban areas, though there have remained several loopholes at the level of implementation of these policies and programs. The JawaharRozgarYojna (JRY) has been one of the biggest programs launched by the Government of India in the year 1989. Within 1992-95 JawaharRozgarYojna was merged with the National Rural Employment Program (NREP) and the Rural Landless Employment Guarantee Program (RLEGP) as pointed out by RaghavGaiha, P.D. Kaushik and Vanikulkarni (1998) in the article “JawaharRozgarYojna, Panchayats and the Rural Poor”. The JawaharRozgarYojna was started with the motive of alleviating rural poverty and creating employment opportunities for the rural poor especially at the times of slack agricultural production and times when there are no other modes of employment for the rural people. But however such schemes have failed to alleviate poverty due to various
regions and the situation thus remains the same in any case. The reason for the failure of such a widespread program was manifold. The target areas though identified could not be attained.

The JawaharRozgarYojna was designed for the rural poor below the poverty line. Here the wages being offered by the JawaharRozgarYojna was much higher than any other program like the local wages or the minimum wages program. These were done to lure the poor into working for more days and as the wages were given very often, participation was more. However, the target population did not reap the benefits much due to the fact that the affluent rural people also competed the rural poor for getting the jobs under JawaharRozgarYojna as the wages were very high. The rural poor lost out in this battle. The other loopholes that existed was that a part of the wages of the JRY was also paid in terms of kind like food grains etc. and this was highly unattractive to the workers as they wanted a ready flow of cash. Though the system for everyday wages was implemented, it did not work out well since the bureaucratic procedures were time consuming and very rarely were daily wages paid to the laborers. There was no motivation to work on the part of the rural poor in this case and therefore the effort to diminish inequalities between the rural and urban areas failed to a great extent.

Iyer, Sen, and George (2007) sought to deepen understanding of equity effects by exploring gender and class dynamics vis-a-vis basic access to health care for self-reported long-term ailments. The authors drew on the results of a cross-sectional household survey in a poor agrarian region of south India to test whether gender bias in treatment-seeking is class-neutral and whether class bias is gender-neutral. They found evidence of "pure gender bias" in non-treatment operating against both non-poor and
poor women, and evidence of "rationing bias" in discontinued treatment operating against poor women overall, but with some differences between the poor and poorest households.

In poor households, men insulated themselves and passed the entire burden of rationing onto women; but among the poorest, men, like women, were forced to curtail treatment. There were economic class differences in continued, discontinued, and no treatment, but class was a gendered phenomenon operating through women, not men.

Hegde, Hegde, and Kholkute (2007) studied Herbal care for reproductive health in Uttara Kannada district in Karnataka. Traditional herbal medicine is predominantly practiced by the rural people of India, especially remote areas such as the Uttara Kannada District in Western Ghats of Karnataka. Local traditional healers play an important role in the management of reproductive health problems of the native population due to socio-economic and geographical factors. In the present study, 92 traditional medicine practitioners/healers from various regions of Uttara Kannada district were interviewed to collect information on the use of herbal treatments for a range of female and male reproductive disorders. Information was collected on the method of preparation, dose and duration along with the botanical names, family and local names of the medicinal plants. The plants were then collected and identified. A total of 18 formulations from 25 plant species belonging to 17 families were identified, which are commonly used to treat 12 different reproductive ailments. This study identifies herbal remedies not previously documented, that are used by indigenous people in the treatment of reproductive disorders. Additionally, the paper highlights the
need to retain and explore the rich biodiversity associated with Indian rain forests that may result in the discovery of new medical treatments.

Finally, this paper notes the continuing reliance on herbal medicines and healing traditions by local people in remote areas. Understanding and working with local healers and tribes provides a unique opportunity to learn about the use of potentially new herbal and plant medications.

Chandrashekhar, Bhat, Pai and Nair (2007) examined the coverage, utilization and barriers to cataract surgical services in rural South India. A cross-sectional, community-based survey was conducted. A house-to-house survey was carried out in 15 villages that were selected by cluster sampling during January to October, 2002. A total of 1505 people aged 50 years and above were tested for visual acuity (VA) and their eyes examined. Cataract surgical coverage was calculated for people and eyes, and for VA levels of <3/60 and <6/60. Information about details of cataract surgery and barriers to cataract surgery were collected using a pre-designed proforma. Cataract surgical coverage was 63% (people) and 51% (eyes) for VA<3/60 compared with 49% (people) and 36% (eyes) for VA<6/60. Of 109 operated eyes, 51.2% of operations were carried out in private hospitals and 33.3% in voluntary/charitable hospitals. Inability to afford the operation (22.9%) and fear of the operation (19.2%) were the main barriers to cataract surgery. The reasons for underutilization of government hospitals are to be investigated. Awareness of low-cost cataract intraocular lens (IOL) non-governmental organization (NGO) surgery and free-of-cost NGO services available in the region needs to be raised. Barriers to cataract surgical services should be addressed by community-based health-education programs to improve the uptake of existing services.
Chandrashekhar, Bhat, Pai and Nair (2007) studied the prevalence of blindness and its causes among those aged 50 years and above in rural Karnataka, South India. A total of 1505 people aged 50 years and above from 15 villages were examined. The participants were selected through a house-to-house survey by the cluster sampling method. Visual acuity was tested using a modified Snellen's chart, and eyes were examined to ascertain the cause of blindness. The prevalence of blindness was 6.6% (95% confidence interval 5.3-7.8%). Bilateral cataract was the principal causes of blindness among 78.7% of the blind and 12.1% were operated for cataract. In conclusion, the study area has a high burden of cataract blindness. Cataract surgical services should be made readily accessible and available to this rural population.

Blanchard et al (2007) reported the sexual structure, including numbers and distribution of female sex workers (FSWs) and male sexual behaviors in the Bagalkot district of the state of Karnataka in south India. Village health workers and peer educators enumerated FSWs in each village by interviewing key informants and FSWs. Urban FSW populations were estimated using systematic interviews with key informants to identify sex work sites and then validating FSW populations at each sex work site. Male sexual behaviors were measured through confidential polling booth surveys in randomly selected villages. HIV prevalence was estimated through a community-based survey using randomized cluster sampling. Lorenz curves and Gini coefficients were used to describe the degree of clustering of FSW populations. Of an estimated 7280 FSWs in Bagalkot district (17.1/1000 adult males), 87% live and work in rural areas. The relative
size of the FSW population varies from 9.6 to 30.5/1000 adult males in the six sub
district administrative areas (talukas).

The FSW population was highest in the three talukas with more irrigated land and fewer
and larger villages. FSW populations are highly clustered; 93 (15%) of the villages
accounted for 54% of all rural FSWs. There is a high degree of FSW clustering in all
talukas, and talukas with fewer and larger villages have larger clusters and more FSWs
overall. General population HIV prevalence is highest in the taluka with the highest
relative FSW population. Prevention programs in India should be scaled up to reach
FSWs in rural areas. These programs should be focused on those districts and sub
district areas with large concentrations of FSWs. More research is required to determine
the distribution of FSWs in rural areas in other regions of India.

adolescent girls a school based intervention study in Udupi Taluk, Karnataka. This
educational intervention study was carried out over a period of one year. A total of 791
rural girls in the age group 16-19 years were randomly selected from coastal villages in
Udupi District, Karnataka. Adolescent girls were educated regarding reproductive
health and their awareness levels were evaluated immediately following intervention. A
significant increase in overall knowledge after the intervention (from 14.4 to 68%, P <
0.01) was observed regarding contraception. Knowledge regarding ovulation, first sign
of pregnancy and fertilization improved by 37.2% (95% CI = (35.2, 39.2), P < 0.001).
Knowledge regarding the importance of diet during pregnancy improved from 66 to
95% following the intervention. This study clearly showed the need and that an
educational intervention program can bring about a desirable change in knowledge among adolescent girls regarding reproductive health in rural area.

**Rani, Bonu and Harvey (2008)** use cross-sectional, nationally representative data from National Family Health Survey (1998-99). Four south Indian states (Andhra Pradesh, Karnataka, Kerala and Tamil Nadu) and four north Indian states (Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh) are included in study. More than four antenatal care visits for utilization, and index of clinical, information and interpersonal quality of care. Lower than desired quality of antenatal care was observed in both north and south Indian states, though the quality was significantly better in south India compared with north India, especially among the disadvantaged women. Significant socio-economic differentials in the quality of care were evident in both north and south India, but were more glaring in north India. A significantly positive relationship was observed between the quality and utilization of antenatal care in the rural areas from village-level multivariate analysis. Poor quality of antenatal care is likely to reduce its utilization.

Policy and program interventions have to improve the quality of care of antenatal care.

**Bhat, M. (2008)** studied Oral health status and treatment needs of a rural Indian fishing community. The study was conducted to assess the oral health status and treatment needs of a rural Indian fishing community. The fishing community had poor access to dental care. The survey was carried out using the WHO 1997 criteria in natural daylight. Convenience sampling method was employed and all the subjects available were examined. Results revealed that a large percentage of the population was afflicted with dental caries and periodontal disease. The unmet treatment need was found to be high in
the study population. Appropriate oral health education and treatment is needed for this rural community.

Madhu, Chowdary, and Masthi (2009) did a study on breast feeding practices and newborn care in rural areas. Breastfeeding practices play an important role in reducing child mortality and morbidity. This study was aimed to describe the breastfeeding practices prevalent in rural areas. The primary objective of this study was to describe the breastfeeding and newborn care practices in rural areas and the secondary objective was to describe the factors affecting the initiation and duration of breastfeeding. The study was conducted in primary health care center (PHC) that is attached to a medical college in Kengeri, Rural Bangalore, Karnataka. Mothers with children who were 9 months old who came to the PHC for measles vaccination were included in the study and data was collected using the pre-tested questionnaire on breastfeeding and newborn practices. The study shows 97% of the mothers initiated breastfeeding, 19% used prelacteal feeds, 90% had hospital deliveries and 10% had home deliveries, and 50% used a house knife to cut the umbilical cord among home deliveries. This study emphasizes the need for breastfeeding intervention programs especially for the mother during antenatal and postnatal check-ups and practices like discarding the colostrum and early/late weaning are still widely prevalent and need to be addressed.

Kulothungan, Kondagunta, Shetty, and Kamath (2009) conducted a study on health provider practices and the influencing factors in a primary health care setting in Udupi Taluk, Karnataka.

The study was planned to ascertain the range of services provided by the various health providers, to study their criteria for determining fees for the services provided, to
understand the barriers in providing the services and to study the factors responsible for their job satisfaction and dissatisfaction.

A cross sectional study was conducted in rural areas of Udupi taluk between September 2007 and October 2008 among 150 rural practitioners. Data was collected by interviewing the practitioners using pre-tested, semi-structured questionnaire. Provision of preventive health services and participation in national programs by the private practitioners was found to be inadequate. Practitioners determine their fees based on the economic status of the patient and the cost of medicines dispensed. Inadequate and irregular income is the major barrier for both government and private sector doctors and most of them were moderately satisfied with their job.

Kesterton and Cleland (2009) narrated neonatal care in rural Karnataka healthy and harmful practices, the potential for change. Every year four million babies die in the first month of life and a quarter of these take place in India. A package of essential newborn care practices exists, which has a proven impact on reducing mortality, and can be implemented in low resource settings. However, childbirth and the neonatal period are culturally important times, during which there is strong adherence to traditional practices. Successful implementation of the package therefore requires in-depth knowledge of the local context and tailored behavior change communication. This study was carried out in rural Karnataka, India. It uses quantitative data from a prospective survey following mothers through their experience of pregnancy and the postnatal period; and qualitative data from in depth interviews and focus group discussions conducted with mothers, grandmothers and birth attendants. It explores local newborn care practices and beliefs, analyses their harmful or beneficial
characteristics and elucidates areas of potential resistance to behavior change and implementation of the essential newborn care package.

Findings show that many potentially harmful newborn care practices are being carried out in the study area, such as unhygienic cord cutting, delayed breastfeeding and early bathing. Some are more amenable to change than others, depending on the strength of the underlying beliefs, and acceptability of alternative care. However, movement away from traditional practices is already taking place, particularly amongst the more educated and better off, and there is a clear opportunity to broaden, direct and accelerate this process.

Kamath et al. (2009) conducted a study to find out the prevalence of goitre among school children in Belgaum district. A cross-sectional study was conducted in primary, middle and high schools of villages selected. All the children of the selected schools were examined for the presence of goitre and the salt samples obtained from their homes were tested for iodine content. Overall prevalence of goitre was 16.7%. Prevalence of palpable goitre was 16.4 % and visible goitre was very low (0.3%). Higher prevalence was found among females (21.1%) when compared to that of male children (12.8 %). Prevalence of goitre increased significantly with advancement of age until 16-yr. 72.1 % children were consuming rock salt and only 27.9 % were consuming powdered salt at their homes. Estimation of Iodine content in the salt samples showed that 68.7 % of the sample had inadequate iodine content. Prevalence of goitre was significantly high among children who consumed rock salt (16.2%) as compared to those who used powdered salt (11%). Strict implementation of salt iodization and marketing in rural area is desired. Also health education programme be showed.
Ahmed et al (2009) The study was carried out in Sandur TU of Bellary District, Karnataka. Information on age, sex and residence of persons with pulmonary symptoms and detected new sputum smear positive cases during third quarter 2003 to second quarter 2004; and their treatment outcome was obtained from the respective RNTCP records. Age and sex distribution of out-patients was collected from OPD registers of one randomly selected DMC and its PHICs. A lesser number of males accessed the health care services. However, larger number of males with pulmonary symptoms and new sputum smear positive cases utilized RNTCP services than females in the ratio of 1.61 and 2.51 respectively. This was due to higher prevalence of persons with pulmonary symptoms and sputum positivity rate among males. Sputum positivity rates were also lower among the elderly. Male symptomatics and cases were on an average older than females. About 70% symptomatics and 53% cases resided at more than four kilometers from the respective DMCs and treating health centers. Treatment outcome was poorer among males with higher proportion of initial defaulters and among those residing at more than 20 kms. There is need to make health services available to the male working population at convenient hours and to be more vigilant to screen persons with pulmonary symptoms among the elderly. Collection of sputum specimen from eligible persons may be undertaken at PHCs which may later be transported to DMC. Supervision and motivation of treatment for male TB cases and those residing more than 20 kms from the treating health centers requires to be strengthened.
Srinivasa Murthy et al (2005) reported in resource-poor countries, there remains an alarming treatment gap for people with schizophrenia, particularly those living in rural areas.

Decentralization of mental health services, including community-based outreach programs, represents one obvious strategy for bringing appropriate care to these communities. This study set out to assess the costs and effects of such a program in rural Karnataka in India. Eight rural communities were visited by an outreach team, who identified cases of drug-naïve or currently untreated schizophrenia. Recruited cases were provided with appropriate psychotropic medication and psychosocial support, and after obtaining informed consent were assessed every 3 months over one and a half years on symptomatology, disability, family burden, resource use and costs. A repeated-measures analysis was carried out to test for significant change in these outcome measures over this period. A total of 100 cases of untreated schizophrenia were recruited, of whom 28% had never received antipsychotic medication and the remaining 72% had not been on medication for the past 6 months. Summary scores for psychotic symptoms, disability and family burden were all reduced significantly, with particular improvement observed at the first follow-up assessment. Increases in treatment and community outreach costs over the follow-up period were accompanied by reductions in the costs of informal-care sector visits and family care-giving time. Efforts to organize community-based care such as outreach services for people with schizophrenia living in more remote areas of resource-constrained countries can bring substantial benefits to patients and families alike.
The rural areas generally lack the knowhow and therefore they lag behind as compared to the urban areas. Due to lower incomes rural areas do not have dedicated doctors and also whatever facilities are present are underutilized. The health centers are sparse and they are not well equipped to deal with all kinds of illnesses.

There is also a lack of awareness on the part of the rural people and therefore they do not seek treatment for illness at the right time. The women of the rural areas are doubly challenged as the health care system does not cater to their needs at all.

2.4.4 Socio Cultural Issues

Broom, Doron, and Tovey (2009) reported India has an eclectic health system that incorporates biomedical as well as traditional, complementary and alternative medicine (TCAM). Understanding of the co-existence of these therapeutic modalities in this diverse, postcolonial and developing nation is extremely limited, and in the context of cancer care, to knowledge no sociological work has been carried out. Contemporary Indian oncology represents a fascinating site for examining the interplay and articulation of forms of tradition/modernity, economic progress/structural constraint and individual beliefs/cultural norms. In a context of an increase in the prevalence and impact of cancer in an ageing Indian population, this paper reports on a qualitative investigation of a group of oncology clinicians' accounts of 'pluralism' in India. The results illustrate the embeddedness of patient disease and therapeutic trajectories in vast social inequalities and, indeed, the intermingling of therapeutic pluralism and the politics of social value. Global health organizations may conceal important forms of social inequality and cultural divides, and that social workers should play a critical role in highlighting these issues.
Choudhary and Parthasarathy (2009) reported from an economic perspective that understood it as a spillover of development, migration is now also the subject of socioeconomic investigation incorporating the problems of assimilation, relative deprivation and isolation.

The corollary is an increased emphasis on economic and social understanding of migration and its consequences. This entails studying migration or migrants in terms of factors beyond income. Health outcome is important among these non-income factors but at the same time remains less studied. Although there have been a few influential studies on health issues as linked to migration status, the issue of malnutrition in this context continues to be under-researched. An econometric analysis of Demographic and Health Survey data gives insight into the dynamics of child and maternal under nutrition as mediated by migration status in Mumbai.

2.5.0 Appraisal of Health Care Systems in India

The base of the public health care system in India was the framework suggested by the Bhore Committee post independence, headed by Sir Joseph Bhore in 1943. This model of health care was based on the ideology of poor houses which would impart free care for all. But this model suffered miserably and therefore during the 1970s, the major emphasis of the health care system was family planning even at the cost of neglecting other aspects of health care. This made the system of health care weaker finally leading the private sector to initiate ventures into the system of health care. An effort to help this miserable condition of the health care system was made by the Indian National Health Policy 2002 followed by the launching of the National Rural Health Mission in
2005. The shift was now from ‘Health for All by 2000’ plan to the Millennium Development Goals of the Indian Government which were set down to bring about ‘architectural corrections’ in the health care system as argued by AshtakerShyam (2008).

K.B. Saxena (2010) in an effort to understand the position of the health care system of India, lays down four challenges that the government faces in the health sector, in his book ‘Health Policy and Reforms – Governance in Primary Health Care’. These challenges can be listed as follows

1.) India suffers from very low health indices in human development as compared to other developing countries falling under the same or similar category as indicated by the high rates of infant and maternal mortality, malnutrition, spread of epidemics and endemics and diseases like HIV/AIDS, malaria, Tuberculosis, meager coverage of vaccinations and so on in spite of all the expenditures being incurred on health care by the government.

2.) A large section of the population especially the rural masses have no access or weak access to health care infrastructure being provided by the government. In most of the cases due to lack of awareness or due to unreliability of government facilities, people visit private clinics etc. Thus the expenditure incurred on health care either does not reach the people who are entitled to it or there is lack of demand from the poor (Devrayan and Shah, 2004) for such services due to unreliability (World Bank, 2004).
3.) The existing rural public health services are under-utilized.

4.) The existence of wide geographical and regional diversities and disparities along with the various sociological barriers present among people of the society ensure that the health care facilities that have been provided are not utilized efficiently (World Bank, 2004).

In any case it has been argued that there must be equity in health financing to bring about equity in health care services. In this regard, G.N.V. Ramana (2002) has argued that all the policies and programs that need to be implemented must be more accessible to the poor and they must be pro-poor. Not only that, for the implementation of health care services to be complete, there must be awareness on the part of the poor so that they are able to use the services that are being provided for them to the fullest. The other line of argument is that, even the private sector must be encouraged to become more empathetic towards the poor and avail services that could be accessible to them in his book ‘Better Health Systems for India’s Poor Findings, Analysis and Options’.

DileepMavalankar (2008) makes an effort to analyze the NRHM, its vision, underlying concepts, strategies and activities in his chapter ‘Strategic Issues and challenges in Health Management’. The NRHM was set up with the idea to bring about reform changes in the structure of the health system of India. The objectives of NRHM were maternal health, fertility reduction and disease control by 2012. However the focus lies not only on reproductive and child health but also on health and family welfare programs. Although some attempts have been made in the past to improve the rural public health infrastructure and new medical insurance schemes have been launched,
these have not been particularly effective or are still in the experimental phrase; particularly, they are not universal and they do not cover outpatient care or reimburse drugs which is the major out-of-pocket expenditure (Shiva Kumar et al. 2011). A possible solution to these challenges could grow out of the National Rural Health Mission. Launched in 2005, the mission envisions important investments in public health services (to 2-3% of Gross Domestic Product by 2012), encourages public-private partnerships and outreach strategies such as e-health and telemedicine, and integration of Ayurveda, yoga, naturopathy, unani, siddha, and homeopathy (Balarajan, Selvaraj&Subramanian 2011). Due to its effectiveness, reflected in a steep increase in the use of these facilities, it is about to be transformed into the National Health Mission (SrinathReddy et al. 2011; Shiva Kumar et al. 2011). Furthermore, the first National Health Bill was introduced in 2009 which is based on the view that health care is a public good and a right of every individual (MoHFW 2009b).

The basic objectives of NRHM are

1.) Establishing community health workers called ASHA.
2.) Infrastructure improvements.
3.) Capacity building.
4.) Private-public partnership.
5.) Risk pooling and social health insurance.
6.) Decentralized planning.

If further scrutinized, it can be understood that it is not only the rural areas that suffer from poverty, ill health and unequal distribution of resources, but urban areas also are
suffering due to the influx of migrant laborers from the rural to the urban areas in search of a better standard of living and in search of employment opportunities. This uncalled for migration of population has resulted in the rapid urbanization of the urban areas and has lead to the creation of slums and slum like dwellings due to the paucity of space and infrastructure.

This unwholesome migration has also lead to the setting up of the National Urban Health Mission, in an effort to render certain basic amenities to the slum dwellers, migrant laborers and the urban areas in general. The NUHM identifies the pressure on the health care system of the urban areas due to the overcrowding of people and the scarcity of required resources as such. Like the NRHM, the strategies followed by NUHM as pointed out by D. John, S J Chander and Dr N. Devadasan,(2008)in their report on ‘National Urban Health Mission An analysis of strategies and Mechanisms for improving services for urban poor’.

Key strategies

1) Strengthening existing primary public health systems.

2) Public private partnership.

3) Communitised risk pooling / insurance mechanism with IT enablement.

4) Monthly health and nutrition day.

5) Capacity building of key stakeholders.

6) Special provision to include the most vulnerable.

7) Monitoring of quality of services.

8) Community participation in planning and management.
9) Identification of target group, through distribution of Family/Individual Health Suraksha Cards.

Model of the NUHM project follows a Three-tier system of health care

I. Community Level
   - Community Outreach Services
   - MahilaArogyaSamitees (MAS)
   - Urban Social Health Activist (USHA)

II. Urban Health center level
   - Strengthening existing public health facility
   - Empanelled private providers

III. Secondary/Tertiary level
   - Public or private empanelled providers

Though this has made a breakthrough in the level of planning, the implementation still needs a long way to go. Though south India has demonstrated better health care services many disparities have been found in various studies.

Nath & Naik (2009) conducted a study with the objective to determine the treatment seeking behavior of parents/caretakers for injuries sustained by children under five years of age in rural Southern India. They found out of 325 children, 39.7% were treated by a health personnel, 29% received home remedy while the rest (31.3%) did not receive any treatment. Commonest home remedies used ranged from antiseptics to folk remedies. Study recommended the need to train parents and caretakers for hygienic and timely treatment of injury.
Chaturvedi (2008) reports there are intriguing and challenging ethical dilemmas in the practice of palliative care in a traditional developing society.

Published literature on pain relief and palliative care in the developing countries was reviewed to identify ethical issues and dilemmas related to these, and ways in which ethical principles could be observed in delivery of palliative care in such countries are discussed. The literature review revealed a number of ethical dilemmas and challenges that professionals, cancer patients and their families encountered during palliative care. It was noted that patients' preferences and decisions are influenced by family members. Dilemmas leave the professionals and families confused about how ethical their actions have been. Specific ethical issues were noted in relation to the availability and use of oral morphine for pain relief, spiritual care, lack of adequate palliative care services, and palliative care education. The four principles of ethics posed difficulties in understanding the complex ethical issues in a developing country with a traditional background. Ethical issues need to be handled delicately and sensitively in palliative care settings, within the framework of the traditions and culture of the society and financial constraints.

Phukan (2009) illustrated populations who suffered for generations yet to receive global health care. A community based cross sectional study was carried out among 150 tribal respondents in a tribal area of Kamrup, Assam with the objective to find out the awareness and practices among the tribal communities. Results found that they were aware about malaria symptoms (97.3%), treatment (94%), methods of prevention (88%) and diagnosis (68%). Most respondents did not avail government health services or DDT spray. Misconceptions persisted among those tribal communities.
2.5.1 Lack of Health Care Services in India

Though the health care system of India is developing, yet, the prevalent system is not up to the mark. There is an overall lack of health care services in India and lots of work needs to be put in, in order to make the health care system responsive to the needs of the society. The following section will deal with the lack of proper services in India.

Fernandez, Mondkar and Mathai (2003) evaluate urbanization is rapidly spreading throughout the developing world. An urban slum poses special health problems due to poverty, overcrowding, unhygienic surroundings and lack of an organized health Infrastructure. The primary causes of neonatal mortality are sepsis, perinatal asphyxia and prematurity. Home deliveries, late recognition of neonatal illness, delay in seeking medical help and inappropriate treatment contribute to neonatal mortality. Measures to reduce neonatal mortality in urban slums should focus on health education, improvement of antenatal practices, institutional deliveries, and ensuring quality perinatal care. Success of a comprehensive health strategy would require planned health infrastructure, strengthening and unification of existing health care program and facilities; forming a system of referral and developing a program with active participation of the community.

Ramani (2004) reported governments all over the world are getting increasingly concerned about their ability to meet their social obligations in the health sector. In this paper, we discuss the design and development of a management information system (MIS) to plan and monitor the delivery of healthcare services in government hospitals in India. Management Information System design is based on an understanding of the working of several municipal, district, and state government hospitals.
In order to understand the magnitude and complexity of various issues faced by the government hospitals, by analyzing the working of three large tertiary care hospitals administered by the Ahmedabad Municipal Corporation. The hospital managers are very concerned about the lack of hospital infrastructure and resources to provide a satisfactory level of service. Equally concerned are the government administrators who have limited financial resources to offer healthcare services at subsidized rates. A comprehensive hospital Management Information System is thus necessary to plan and monitor the delivery of hospital services efficiently and effectively.

Purohit (2004) points that being the State's responsibility the healthcare has traditionally been influenced by individual State's budgetary allocation. Consequently inter-state disparity in availability and utilization of health services and health manpower are distinctly marked. This has implications for achievement of Health for All for the nation as a whole. Keeping in view the significance of studying inter-state variations in healthcare, this study focuses on the performance of healthcare sector in 15 major States in India. This is attempted through a comparative analysis of various parameters depicting availability of health services, their utilization and health outcomes. Analysis depicts the prevalence of considerable inequity favoring high income group of States. In terms of healthcare resources, for instance, it indicates that the high income States hold a superior position in terms of per capita government expenditure on medical and public health, total number of hospitals and dispensaries, per capita availability of beds in hospitals and dispensaries and health manpower in rural and urban areas. These parameters of availability have an impact on utilization levels and health outcomes in these States.
A comparative profile of high and low income States as well as middle and low income States, both in rural and urban areas, reaffirms a greater financial burden in availing treatment at Out-Patient department and inpatient in low income States. In line with the higher financial burden and low per capita health expenditure, the health outcome indicators also depict a disconcerting situation in regard to low income States. These States are marked by lower life expectancy and higher incidence of diseases as well as high mortality rates. In this regard, demand as well as supply side constraints are observed which restrain the optimum utilization of existing health services. Among the low income States the main constraints on the demand side include illiteracy, malnutrition, and lack of infrastructure in accessing the facilities. Certain state specific supply side factors add significantly to under-utilization in low income States. In some of the States, however, corrective actions have been initiated to overcome the problem of the quality and low utilization of health facilities. In due course of time, it is likely that proper implementation of these measures may result in improved utilization level of existing health services, which may be useful to improve health status indicators. Nonetheless, overcoming the current levels of regional disparities in healthcare across three income groups of States may also require additional resources. The latter could be mobilized through assistance of donor agencies and appropriate mix of social and private insurance. Ultimately mitigating the problem of regional disparities in healthcare and protecting the poor and vulnerable from financial burden may require establishing and maintaining proper linkages between socio-economic development and healthcare planning.
Elamon, Franke and Ekbal (2004) illustrate decentralized Planning has provided much new information about the possibilities and potential of decentralizing public health and health care services. Analysis of investment patterns of the various government levels involved in the campaign, supplemented with case study materials, allows for an evaluation of the decentralization project against its own stated goals. These included (1) creating a functional division among government levels appropriate to the health tasks each level can best perform; (2) generating projects that reflect the felt needs of the people, as voiced through local participatory assemblies; (3) maintaining or increasing levels of equality in health, especially with regard to income, caste, and gender; (4) stimulating communities to mobilize voluntary resources to supplement devolved public funds; (5) stimulating communities to create innovative programs that could become models for others; and (6) making the health services function more effectively overall. Lessons of the campaign are already being applied to new programs in Kerala.

Ramani (2004) reported in order to understand the magnitude and complexity of various issues faced by the government hospitals, technology could be used. Equally concerned are the government administrators who have limited financial resources to offer healthcare services at subsidized rates. A comprehensive hospital information management system is thus necessary to plan and monitor the delivery of hospital services efficiently and effectively.

Sinha et al (2006) examine barriers faced by members of a community-based insurance (CBI) scheme, which is targeted at poor women and their families, in accessing scheme benefits.
CBI schemes have been developed and promoted as mechanisms to offer protection to poor families from the risks of ill-health, death and loss of assets. However, having voluntarily enrolled in a CBI scheme, poor households may find it difficult or impossible to access scheme benefits. The study finds that the members face a variety of different barriers, particularly in seeking hospitalization and in submitting insurance claims. Some of the barriers are rooted in factors outside the scheme's control, such as illiteracy and financial poverty amongst members, and inadequacies of the transportation and health care infrastructure. But other barriers relate to the scheme's design and management, for example, lack of clarity among scheme staff regarding the scheme's rules and processes, and requirements that claimants submit documents to prove the validity of their claims.

Kaur (2006) discusses India as a country is vulnerable to a number of disasters, from earthquakes to floods. Poor and weaker members of the society have always been more vulnerable to various types of disasters. Disasters result in unacceptably high morbidity and mortality amongst the affected population. Damage to infrastructure and reduction in revenues from the affected region due to low yield adds to the economic losses. Poor co-ordination at the local level, lack of early-warning systems, often very slow responses, paucity of trained dedicated clinicians, lack of search and rescue facilities and poor community empowerment are some of the factors, which have been contributing to poor response following disasters in the past. The first formal step towards development of policies relating to disaster care in India was the formulation of the National Disaster Response Plan (NDRP) which was formulated initially by the Government of India for managing natural disasters only.
However, this was subsequently amended to include man-made disasters as well. It sets the scene for formulating state and district level plans in all states to bring cohesiveness and a degree of uniform management in dealing with disasters. A National Disaster Management Authority has been constituted which aims to provide national guidelines and is headed by the Prime Minister of India. It is the highest decision-making body for the management of disasters in the country. The authority has the responsibility for Co-ordinating response and post-disaster relief and rehabilitation. Each state is required to set up Disaster Management Authorities and District Disaster Management Committees for co-ordination and close supervision of activities and efforts related to the management of disasters. Still response to disaster is not adequately prepared in rural India.

Garg and Bolisetty (2007) reported neonatal care has made tremendous improvements in developing countries. However there are number of challenges to be met and neonatal mortality remains unacceptably high. In contrast to this, neonatal care in developed nations has moved ahead of a pre-occupation to reducing the neonatal mortality only. The main reasons for this gap are poor infrastructure, resource limitations and lack of systems developed by neonatal units in the developed nations.

Joshipura (2008) narrated trauma care in India. Industrialized cities, rural towns, and villages coexist with a variety of health care facilities and an almost complete lack of organized trauma care. There is gross disparity between trauma services available in various parts of the country. Rural India has inefficient services for trauma care, due to the varied topography, financial constraints, and lack of appropriate health infrastructure.
There is no national lead agency to coordinate various components of a trauma system. No mechanism for accreditation of trauma centers and professionals exists. Education in trauma life-support skills has only recently become available. Some initiatives on improving pre hospital systems have been seen recently. Although injury is a major public-health problem, the government, medical fraternity, and the society are yet to recognize it as a significant public health challenge.

**Widge and Cleland (2009)**, a postal survey was conducted with a sample of 6000 gynecologists and in-depth interviews were conducted with 39 gynecologists in four cities. The role of the public sector in infertility management is weak as even basic investigations and services were limited or incomplete. Inadequate infrastructure, inappropriate management including time management, lack of information and training, absence of clear protocols at all levels, private practice by public health doctors, pre-occupation with other health issues and lack of regulation were the main problems mentioned by providers. Amongst key recommendations are realistic and low-cost management, streamlining and regulating services, counseling of couples, providing information and raising awareness of patients, health personnel and policy makers.

**Widge and Cleland (2009)**, a postal survey conducted with a sample of 470 gynecologists and in-depth interviews with 39 gynecologists in four cities. ART clinics have proliferated in cities and towns; they are commercialized and the quality of treatment is variable. Most providers perceived that patients lack knowledge about infertility and ART; costs are high, investigations unnecessarily repeated and success rates low.
ART providers do not have clear selection criteria, some lack rigorous specialized training and infrastructure and most are deficient in record-keeping and counseling and lack transparency. Monitoring and regulation by appropriate authorities are also lacking. Saccone and Jain (2009) studied Fracture healing in India. The availability of fracture healing therapies to the general public is limited in India. The infrastructure of the health system in India, involving both public and private sectors, does not provide adequate opportunity for rural and low-income inhabitants to access needed care. Also the lack of funding from the government and the overall lack of physicians place a large strain on the system. This paper will take an in-depth look at the state of the current health care system and how it affects bone stimulation therapy in India. The Indian Journal of Orthopedics was used as a reference for the bone stimulation therapies currently utilized in India. A general search of the therapies and technologies was performed to determine protocols and indications. Bone stimulation therapy in India remains a large void in the health care system.

Iyengar, Iyengar, and Gupta (2009) used the results of a review of literature to understand the persistence of poor maternal health in Rajasthan, a large state of north India, and to make some conclusions on reasons for the same. The rate of reduction in Rajasthan's maternal mortality ratio (MMR) has been slow, and it has remained at 445 per 1000 live births in 2003. The government system provides the bulk of maternal health services. Although the service infrastructure has improved in stages, the availability of maternal health services in rural areas remains poor because of low availability of human resources, especially midwives and clinical specialists, and their non-residence in rural areas.
Various national programs, such as the Family Planning, Child Survival and Safe Motherhood and Reproductive and Child Health (phase 1 and 2), have attempted to improve maternal health; however, they have not made the desired impact either because of an earlier emphasis on ineffective strategies, slow implementation as reflected in the poor use of available resources, or lack of effective ground-level governance, as exemplified by the widespread practice of informally charging users for free services. Thirty-two percent of women delivered in institutions in 2005-2006. A 2006 government scheme to give financial incentives for delivering in government institutions has led to substantial increase in the proportion of institutional deliveries. The availability of safe abortion services is limited, resulting in a large number of informal abortion service providers and unsafe abortions, especially in rural areas.

Evans et al (2009) reported maternal mortality continues to be high in rural India. Chief among the reasons for this is a severe shortage of obstetricians to perform cesarean delivery and other skills required for emergency obstetric care (EmOC). In 2006, the Government of India and the Federation of Obstetric and Gynecological Societies of India (FOGSI) with technical assistance from Jhpiego, instituted a nationwide, 16-week comprehensive EmOC (CEmOC) training program for general medical officers (MOs). This program is based on an earlier pilot project (2004-2006). More trainees performed each of the basic EmOC skills after the training than before. After training, 10 of 15 facilities to which trainees returned could provide all signal functions for basic EmOC whereas only 2 could do so before.
For comprehensive EmOC, 2 facilities with obstetricians were providing all functions before and 2 were doing so after, even though the specialists had left those facilities and services were being provided by CEmOC trainees. Barriers to providing, or continuing to provide, EmOC for some trainees included insufficient training for cesarean delivery, lack of anesthetists, equipment and infrastructure (operating theater, blood services, forceps/vacuum, manual vacuum aspiration syringes).

Abraham et al. (2009) highlight peritoneal dialysis (PD) is an underutilized renal replacement therapy in the developing world. It offers advantages of simplicity, reduced need of training, lack of dependence on infrastructure and location. The population is extremely underserved by healthcare and means to achieve it. PD is unavailable in many African nations. They explore the logistics of PD, domestic manufacture of PD fluid and accessories and ways to sustain it. Realization of local factors, ways to reduce peritonitis, reduced dosage in patients with residual renal function and use of generics to treat anemia that help improve the logistics. The role of national government especially in countries where dialysis is rationed and its lack of involvement leaving the billions to fetch for them are discussed. Innovative schemes by private insurers have improved PD outcome locally. These include subsidized once-in-a-lifetime PD treatment payment and industry sponsored nurse and technician visits to patients. Finally, the factors preventing nephrologists in delivering PD are as lack of training, reimbursement, infrastructure and affordability.
Shivaparakash et al (2009) report Provision of infant oral health (IOH) care is a challenging issue in the rural areas of India due to lack of pedodontists and other dental workforces.

To overcome these barriers it is essential to call the medical and other healthcare professionals to provide IOH care in joint collaboration with dental professionals. However, it is unclear to what extent these medical professionals are really aware of preventive strategies and to what extent they impart them. The present study was designed to begin from the grass-root levels, that is, assessing the baseline knowledge and awareness regarding IOH care among students (dental/medical) and parents (urban/rural). Variation of opinions with inconsistencies were obtained from both medical and/dental students and as well as from both the parental groups. This study calls for further research to evaluate the role of various factors involved in IOH care and to effectively educate all healthcare providers in this area.

Ramachandran and Snehalatha (2009) examine current scenario of diabetes in India. India, a country experiencing rapid socioeconomic progress and urbanization, carries a considerable share of the global diabetes burden. Studies in different parts of India have demonstrated an escalating prevalence of diabetes not only in urban populations, but also in rural populations as a result of the urbanization of lifestyle parameters. The prevalence of pre diabetes is also high. Recent studies have shown a rapid conversion of impaired glucose tolerance to diabetes in the southern states of India, where the prevalence of diabetes among adults has reached approximately 20% in urban populations and approximately 10% in rural populations.
Because of the considerable disparity in the availability and affordability of diabetes care, as well as low awareness of the disease, the glycemic outcome in treated patients is far from ideal. Lower age at onset and a lack of good glycemic control are likely to increase the occurrence of vascular complications. The economic burden of treating diabetes and its complications is considerable. It is appropriate that the Indian Government has initiated a national program for the management and prevention of diabetes and related metabolic disorders. Lifestyle modification is an effective tool for the primary prevention of diabetes in Asian Indians. The primary prevention of diabetes is urgently needed in India to curb the rising burden of diabetes.

Radhakrishnan (2009) reports of the 50 million people with epilepsy worldwide, around 80% reside in resource-poor countries, which are ill-equipped to tackle the enormous medical, social and economic challenges posed by epilepsy. The capability to identify people with epilepsy and provide cost-effective care is compromised by widespread poverty, illiteracy, inefficient and unevenly distributed health-care systems, and social stigma and misconceptions surrounding the disease. Several studies have reported that a large proportion of patients with epilepsy in resource-poor countries never receive appropriate treatment for their condition, and many, although diagnosed and initiated on treatment, soon discontinue treatment. The high cost of treatment, a lack of availability of antiepileptic drugs, and superstitious and cultural beliefs contribute to a large epilepsy treatment gap. A substantial proportion of the current burden of epilepsy in resource-poor countries could be minimized by educating the public about positive features of life with epilepsy, informing primary and secondary physicians about current trends in the management of epilepsies, scaling up routine
availability of low-cost antiepileptic drugs, and developing cost-effective epilepsy surgery programs. A comprehensive epilepsy care model should consider the marked heterogeneity of the disorder and its variable effects on the patient, family and community.

*Iyengar et al (2009)* report in 2002-2003, all deaths (n=156) of women aged 15-49 years in a block of southern Rajasthan were investigated to determine the cause of death and care-seeking behavior. Family members of 156 (98%) of 160 deceased women were interviewed following the comprehensive listing of all deaths among women of reproductive age. Of the 156 deaths, 31 (20%) were pregnancy-related; 77% of these women died during the postpartum period, and 74% of the deaths occurred in the home. Direct and indirect obstetric causes were responsible for 58% and 29% of the deaths respectively; 12% were injury-related deaths. Medical care was sought for 65% of the women, and 29% were hospitalized. Family perception of not being able to afford treatment at distant hospitals was a major barrier to seeking care, and 60% of those who sought care had to borrow money for treatment. Lack of skilled attendance and immediate postpartum care were major factors contributing to deaths. Improved access to emergency obstetric care facilities in rural areas and steps to eliminate costs at public hospitals would be crucial to prevent pregnancy-related deaths.

*Kermode et al (2009)* found people with mental disorders experience discrimination as a consequence of stigmatizing attitudes that are largely socio-culturally constructed. Thus, there is a need to understand local contexts in order to develop effective programs to change such attitudes. They undertook a mental health literacy survey in rural Maharashtra, India, prior to developing a mental health training program for village
health workers (VHWs) in a primary health care setting. A cross-sectional mental health literacy survey was undertaken in late 2007, which involved interviewer-administration of a questionnaire to 240 systematically sampled community members, and 60 purposively sampled VHWs. Participants were presented with two vignettes describing people experiencing symptoms of mental disorders (depression, psychosis), and were asked about attitudes towards, and desired social distance from, the people in the vignettes (the latter being a proxy measure for stigma). Although the community was relatively accepting of people with mental disorders, false beliefs and negative attitudes were still evident.

Kotecha et al. (2009) explored reproductive health awareness among rural school going adolescents of Vadodara district. A quantitative survey was carried out using a self-administered structured questionnaire among 768 (428 boys and 340 girls) students from 15 schools by systematic random sampling from schools (3 schools from 5 talukas). Focus group discussions, 5 each with adolescent boys and girls and teachers were held. Only 31% of the boys and 33% of the girls mentioned that they had heard about contraception. More than half of the adolescent boys and girls knew correctly about various modes of transmission of HIV/AIDS. A large proportion of boys and girls have mentioned changes in the opposite sex such as increase in height, change in voice, breast development, and growth of facial hair, growth of hair in private parts, onset of menstruation in girls, etc. Nearly 70% of adolescents were ready to use AFC. Teachers perceived that adolescents become curious about the changes taking place in them, but they lack information and opportunities for open-discussions to get answers to their queries related to reproductive health.
Phukan, Barman and Mahanta (2009) conducted a study to evaluate the factors affecting the immunization coverage in the first year of life of the children. About 62.2% of the children were fully immunized. Lack of information among the parents was one of the major causes of drop out of vaccinations. The children from urban areas and mother's education level showed significant role in immunization coverage. Improvement in female literacy coupled with the reduction in the dropout rate would add to achieve a higher target of immunization among children in the study area.

2.6.0 Health Inequality and Social Work

Greene & Kupler (2003) studied about Autonomy and professional activities of social workers in hospital and primary health care settings. They found that social workers in hospital settings often experience frustration. Even in the primary care settings level frustration was not different due to differential treatment from management. Along with profit making health sector must social workers as a link between health service and community to ensure health care quality.

Nanjunda (2009) underlined the role of social workers’ contribution to promotion of rural health Numerous NGOs are working to improve health quality in rural India. By describing a rural health promotion project in which a social worker played a key role, author illustrates how social work practitioners can bring their many skills to bear in efforts to promote health. This commentary seeks to share the experience of an NGO in specific health promotion project in Rural Karnataka State (India).
**Hernandez, Montana, & Clarke (2010)** recommended social workers must facilitate the care to children who are considered as assets of nation. They reported ignoring children’s health would compromise their educational preparedness, occupational pursuits, productivity, and longevity. Current science demonstrates that developmental, emotional, or behavioral limitations experienced during the early years of life and over the life course are associated with poor adult health outcomes. Poverty, restricted access to health insurance and health care services, cultural and linguistic barriers, neighborhood conditions, and racial and class inequalities exacerbate poor health outcomes and contribute to child health inequality. To respond to the complexities and threats of child health inequality, social workers must be sensitized to the physical and material constraints that support them and join forces with other disciplines in comprehensive approaches to reduce and prevent them.

**Buckey, & Abell (2010)** reported in descriptive, in vivo study, factors influencing surrogate and proxy decisions (N = 132) following life-sustaining treatment decisions. Patient communication and self-efficacy variables accounted for approximately 38% of the variance in surrogates' perceptions of benefits/barriers associated with decision making. Guided by patients' advanced communication, respondents (97.8%) expressed high self-reliance and significant appreciation of benefits associated with their decisions. Clarifying surrogates' and providers' understanding of patient care preferences during ICU/CCU admission may facilitate better adherence to patient wishes. Social workers can play an active role in decision making process.
**Thakur et al (2011)** reported non communicable diseases (NCDs) have become a major public health problem in India accounting for 62% of the total burden of foregone diseases and 53% of total deaths. They outlined impact at household, health system and the macroeconomic level. Cardiovascular diseases (CVDs) figure at the top among the leading ten causes of adult (25-69 years) deaths in India. The effects of NCDs are inequitable with evidence of reversal in social gradient of risk factors and greater financial implications for the poorer households in India. Out-of-pocket expenditure associated with the acute and long-term effects of NCDs is high resulting in catastrophic health expenditure for the households. Study in India showed that about 25% of families with a member with CVD and 50% with cancer experience catastrophic expenditure and 10% and 25%, respectively, are driven to poverty. The odds of incurring catastrophic hospitalization expenditure were nearly 160% higher with cancer than the odds of incurring catastrophic spending when hospitalization was due to a communicable disease. These high numbers also pose significant challenge for the health system for providing treatment, care and support. Since health sector alone cannot deal with the "chronic emergency" of NCDs, a multi-sectoral action addressing the social determinants and strengthening of health systems for universal coverage to population and individual services is required. Social workers are contributing support to these families, though such support is not sufficient.

**Bisht, Pitchforth, & Murray (2012)** used a five step search and analysis method in order to capture as wide a range of material as possible. Documents published in English that met criteria for a social science contribution were included for review.
National and transnational health care systems are rapidly evolving with current processes of globalization. Future research agendas on health systems issues need to include innovative empirical work that captures the dynamics of transnational processes and that links macro-level change to fine-grained observations of social life. Impact of social factors has to be addressed by social workers.

Peterson (2012) discussed about shared decision making (SDM), which is a process integral to social work practice, one where the provider/professional and the consumer/patient discuss treatment alternatives based on patient values and life circumstances and make a shared decision about whether and how to proceed with treatment. Evidence-based medicine suggests that for many health conditions, having the choice of several effective treatment options is not uncommon. In these cases treatment should be based on what is best for the individual, since many factors influence an individual's treatment preference, including the psychological, social, cultural, and spiritual history she/he brings to the medical encounter; a history that has long been ignored in somatic health care. The argument is that medical social workers possess the professional knowledge and skill base to provide decisional coaching, and implementing SDM in primary care settings.

Nicholas et al. (2012) evaluated an online education and support website intervention for adolescents with Type 1 diabetes. Participants were enrolled in an 8-week, online program addressing diabetes-related issues for adolescents. The evaluation comprised an intervention trial in which participants were assigned to an intervention or control group, and pre- and post-intervention measures of social support were administered.
Outcomes indicated interventional gains approaching significance in participants' quality of relationships with others external to their family. Post-intervention qualitative interviews with intervention group participants identified beneficial impacts of decreased isolation, knowledge gain, and normalization of experience. Findings suggest that online information and support is an important resource in augmenting clinical care.

Zebrack, Burg, & Vaitones (2012) reported throughout its history, social work has played a critical role in major client/patient care initiatives because of its unique perspective, wisdom, and skills. Indeed, emerging research suggests that the use of psychosocial screening instruments results in reductions in emotional distress, better quality of life, and improved patient-provider communication. Topics addressed include a review of the historical context driving distress screening implementation, barriers and challenges to oncology social workers trying to implement distress screening, statistical and cultural considerations for selecting screening tools, best practice models, and future considerations. Scientific screening is essential to monitor the quality of care.

Souza, Karkada, and Somayaji, (2012) studied factors associated with health-related quality of life among Indian women in mining and agriculture. A descriptive cross-sectional research design was used. The instruments used are SF-36 Health Survey and Coping Strategy Checklist. ANOVA, MANOVA and GLM were used in the analysis. The study was conducted between January-September 2008 with randomly selected women in a mining (145) and an agricultural community (133) in India.
Women in the agricultural community had significantly increased Physical Health, Mental Health and SF36 scores compared with those in the mining community. Years of stay, education and employment were significant predictors among women in the agricultural community. 39% (33%) and 40% (26%) of the variance in Physical and Mental health respectively among women in agricultural and mining communities are predicted by the structural, health and psychosocial variables. Perceived health status should be recognized as an important assessment of Physical and Mental Health among women in rural stressed communities. Cognitive, emotional and behavioral coping strategies are significant predictors of health related quality of life.

Therefore though efforts are being made, the country still has a long way to go and the system of health care has to be updated keeping in view the general requirements of the people of the society. Through public private partnership and the intervention of the private sector in association with the public sector, lots of improvements have been made in the health sector and the private sector and the NGOs are reaching out to the areas though spreading awareness where the government is not being able to deliver, improving the overall health status of the country.