Chapter 2: Review of Literature
2.1: Introduction

Poor health has repercussions not only for women but also their families. Women in poor health are more likely to give birth to low weight infants. They also are less likely to be able to provide food and adequate care for their children. Finally, a woman’s health affects the household economic well-being, as a woman in poor health will be less productive in the labor force. *(Velkoff and Adlakha, 1998)*

Investments in women’s health and nutrition have multiple payoffs. They improve women’s well-being and productivity, yielding significant benefits for individuals, families, communities and the national economy. Poor health reduces women’s capacity to carry out their multiple productive and reproductive responsibilities. Studies have shown that women are responsible for providing most of the health care for their families, heading at least 20 percent of the households in the region, growing a significant share of food consumed domestically and bringing in one third of total household income, without considering the value of their work at home. Improving women’s health and nutrition significantly reduces infant mortality and low-birth weights. It also enhances women’s ability to care for older children and elderly family members throughout their lives. *(Cohen, 1998)*

2.2: Literature Survey for Women Health

Our understanding of women’s health and what affects women’s health has evolved significantly over the last century *(Cohen, 1998)*. Traditionally, discussions of women’s health focused on
reproductive and gynecological health; however, in the last two decades there has been a shift in our understanding of women’s health. There is now some understanding that women’s health concerns extend across the life cycle and are not limited to reproductive and gynecological problems. Women’s health is related to the social, political, cultural and physical conditions under which women live. The factors and conditions affecting women’s health include interconnected physical, mental, social and spiritual dimensions (Cohen, 1998).

One of the major developments to emerge in the study of women’s health over the last decade in particular has been the recognition that health is influenced not only by biological mechanism and medical models but also by a range of socio-cultural, physical and psychological factors (Cohen and Sinding, 1996). Broadly categorized as the multiple determinants of health, these factors can include influences such as income and social status, social support networks, education, employment and working environment, biology and genetic predisposition, personal health practices, healthy child development, gender and culture (Cohen, 1998; Women’s Health Strategy 1999). The Report on the Health of Canadians (1996) also lists behaviours that enhance or create risks to health, such as individual capacities and coping skills, and decision-making. The Ottawa Charter for Health Promotion (1986) describes peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice, and equity as fundamental conditions and resources essential for health (Cohen, 1998).

The relationship between poverty and ill health is well-documented and well-known (The working Group on Women’s Health. Department of Health. Government of Newfoundland and Labrador, 1994). In all societies, women constitute a larger proportion of the poor and they lag
behind men in almost every social and economic status indicator (Cohen, 1998). Kaufert (1996) has identified some of the social and economic conditions resulting from racism and poverty that influence women's well-being. "Factors such as poverty and racism determine women's access to education, the type of occupation available to them, their actual or potential dependence on welfare payments, the quality and affordability of their housing, the quality of their health care and its ease of access, the availability of quality child care, the safety of their neighborhood, and their access to affordable nutrition". Poverty also seems to be associated with a slough of chronic health conditions such as heart disease, arthritis, stomach ulcers and migraines (Statistics Canada, 1994). Income affects lifestyle, quality of housing and nutrition. To a large extent, income can determine access to health care, for example treatment, medication, counseling and rehabilitation (The Working Group on Women's health, Department of Health, Government of Newfoundland and Labrador, 1994). In fact, health increases at each step up the hierarchy in income, education and social status. Unemployment is another major problem faced by women that negatively affects health. Unemployed women and women doing only housework tend to have higher levels of ill health. (Arber, 1996).

Many of the health problems of Indian women are related to or exacerbated by high levels of fertility. Overall, fertility has been declining in India; by 1992-93 the total fertility rate was 3.4 (International Institute for Population Science (IIPS), 1995). However, there are large differences in fertility levels by state, education, religion, caste and place of residence. Uttar Pradesh, the most populous state in India, has a total fertility rate over 5 children per woman. On the other hand, Kerala, which has relatively high levels of female education and autonomy, has a total fertility rate under 2.
High levels of infant mortality combined with the strong son preference motivate women to bear high numbers of children in an attempt to have a son or two survive to adulthood. Research has shown that numerous pregnancies and closely spaced births erode a mother’s nutritional status, which can negatively affect the pregnancy outcome (e.g. premature births, low birth-weight babies) and also increase the health risk for mothers (Jejeebhoy and Rao, 1995). Unwanted pregnancies terminated by unsafe abortions also have negative consequences for women’s health. Reducing fertility is an important element in improving the overall health of Indian women.

Place of birth and type of assistance during birth have an impact on maternal health and mortality. Births that take place in non-hygienic conditions or births that are not attended by trained medical personnel are more likely to have negative outcomes for both the mother and the child. The NFHS survey found that nearly three quarters of all births took place at home and two-thirds of all births were not attended by trained medical personnel. While health care is important, there are several other factors that influence maternal mortality and health. Medical research shows that early age at first birth and high numbers of total pregnancies take their toll on a woman’s health. Although fertility has been declining in India, as noted earlier, many areas of the country still have high levels. In 1993, five states had total fertility rates of over 4 children per woman (India Registrar General (IRG), 1996a). In general, high maternal mortality ratios are related to high fertility rates.
Cutler and Lleras-Muney suggest various broad explanations for the association between health and education, although they recognize that these do not represent an exhaustive list. The first is that poor health leads to lower levels of schooling, since poor health in childhood is linked to poor health in adulthood.

The second potential explanation for the link between education and health is that increased education directly improves health. Quasi-natural experiments have demonstrated causal influences of various changes in educational policies and of maternal educational policies and of maternal education on health outcomes and also that increasing own education improves one’s own health. However these natural experiments have not considered the quality of schooling. Furthermore, experiments tend to use study participants whose characteristics differ from those of the rest of the population, making it difficult to generalize the findings beyond the research samples. The authors conclude that one should apply caution when considering this account as the full explanation for the relationship between health and education (Cutler and Lleras-Muney).

Cutler and Lleras-Muney also explore potential mechanism that could affect the relationship between health and education. One important mechanism is income, as greater financial resources may enable more access to health care. The authors note, however, that while this may partially explain the relationship between health and education, when they hold income constant, the impact of education on health does not disappear.

Just as good health may help facilitate economic growth, poor health can constrain it. This is particularly true of the poorest countries of the world, which typically have the greatest disease
burdens. Most obviously poor health can reduce economic development because it reduces the quantity and quality of labour. This acts to reduce the number of hours worked, which has an adverse affect on national income. If the population remains unhealthy for a sustained period, this can affect the rate growth of national income (over. 1991). Weak growth, by extension, squeezes the amount of resources a government and individuals possess to spend on education, health and living conditions, which may further exacerbate the circle of poor health and poverty.

2.3: Literature Survey for Child Health

Nutritional status of children today reflects a healthy and a productive generation in future. Especially for pre-school children. nutritional condition is a critical factor for optimum growth and it should neither be inadequate nor excessive. Improved nutrition and health enhance the learning ability of children. In the long-run it leads to an increase in the strength of the labor force and thereby it contributes positively for the economic growth. Thus, good nutrition is essential for healthy, thriving individuals, families and a nation.

Optimal nutritional status is the state where the body gets all the nutrients that provide good health and optimal utilization. Presence of problems like inadequate food intake, infectious and parasitic diseases, and adverse environmental factors often associated with poverty, cause low nutritional status and therefore, prevents people from realizing their full growth potential. Malnutrition is therefore, a state in which the physical functions of an individual is impaired to the point where she/he can no longer maintain an adequate level of performance at such things as physical work, resisting or recovering from effects of disease, maintaining an adequate level of
growth, or the process of pregnancy or lactation. Nutritional status is therefore a sensitive indicator of health status and nourishment levels of a population (Toroitich-Ruto, 1998; Madise and Mpoma, 1997; Madise and Matthews, forthcoming).

Mother's education, according to the NFHS, is highly correlated with the level of malnutrition among children. Children of illiterate mothers are twice as likely to be undernourished or stunted as children whose mothers have completed at least high school. The differentials are even larger when severely undernourished children are considered. Children of illiterate mothers are three times as likely to be severely undernourished as children of mothers with at least a high school education (Velkoff and Adlakha, 1998).

Christian and Alderman (2001) have measured child malnutrition in Ethiopia using height-for-age Z-scores and identified that gender of the child, household resources, parental education, food prices and maternal education are the key determinants of growth flattering in Ethiopia. Further, they have also found out that strengthening of the nutritional knowledge of the community through child growth monitoring or nutritional education programs are important, other than formal education.

Ryan et al. (1984) have analyzed the determinants of individual diets and nutritional status in six semi-arid villages of Southern India using weight-for-age classification suggested by the Gomez et al. (1955). They have found that the education level of the mother has a significant influence
on improving the nutritional value of their children's diet, especially through an effective meal planning. Mothers who had formal education were able to recognize correctly the nutritional values many food types. According to this study, children whose mothers are working as daily wage laborers tend to consume less protein, energy, calcium and lysine than that of the other children whose mothers remained at home.

The importance of the maternal education as an overall strategy to address child malnutrition has been well documented. Studies done in the Philippines (Barrera, 1990), Pakistan (Alderman and Gracia, 1994), Ghana (Lavy et al., 1996) and Jamaica (Handa, 1999) have been addressed this issue.

Glewwe (1999) has identified three pathways through which schooling may influence the health of children in Morocco. Firstly, the formal education may directly transfer health knowledge to future mothers. Secondly, the literacy and numeracy skills acquired in the school may enhance people's capability to diagnose and treat health problems of children. Thirdly, increased familiarity with modern society through schooling may make woman more receptive to modern medicine. Moreover, this study shows that mother's knowledge on health alone appears to be a crucial skill in improving nutritional status of the children. He found out that though such knowledge is acquired outside the classroom, it is facilitated by the numeracy and literacy skills obtained through formal education.
Gunasekara (1999) has used three anthropometric indices, i.e., those are weight-for-age, height-for-age and weight-for-height indicators, to assess the nutritional status of children in Sri Lanka, using secondary data. Demographic status of the mother, the number of living children, pregnancy of the mother and the level of education significantly affect the nutritional level of children. According to the results of this study, children of working mothers are stunted than those of the non-working mothers, showing that working condition of the mother and the level of malnutrition of their children shows a negative relationship.

Rathnayake and Weerahewa (2003) have studied the role of mother’s income in alleviating caloric malnutrition in Sri Lanka, using calorie adequacy ratio (CAR) and relative calorie allocation (RCA). They have used a sample of 183 low-income households from urban, rural and estate sectors. They have found out that income of mothers, family size, children’s age, gender, birth order and the education level of mothers, family size, children’s age, gender, birth order and the education level of mothers are important determinants of household and individual nutritional levels.

Above studies suggest that child malnutrition is determined by characteristics of the child, household and community. Child characteristics are birth weight, birth order and gender of the child. Accesses to health and sanitation facilities are the community characteristics. Distribution, availability and expenditure on food, which depend on education, knowledge, income and care provided by mothers, are the household characteristics.
Among the potential determinants of child health, the mother's education has been the focus of economists. More educated mothers may have healthier children because they have better knowledge about health care and nutrition, have behaviour, and provide more sanitary and safer environments for their children (Behrman and Deolalikar, 1988, 1990; Strauss, 1990; Thomas et al., 1990, 1991; Desai and Alva, 1998; Glewwe, 1999; Currie and Moretti, 2003). In addition to the nurturing effect, nature could also play an important role. More educated mothers are more likely to have better health, which genetically leads to better health for their children (Behrman and Wolfe, 1987; Wolfe and Behrman, 1987). In econometric terms, the nurturing effect is the causal effect of the mother's education on child health, but the nature effect is caused by selection or omitted variable. Unfortunately to the best of our knowledge, almost no previous studies have separated the nature effect from the nurturing effect.

The brief literature survey had suggested that a number of research works have been made to evaluate women and children health status across the world from time to time. In each study different variables have been prioritized as determinants of women and children health. But, in Indian context, especially at village level no such rigorous attempt has been made for evaluating women and children health status by considering all the possible health determinants. Here, in subsequent chapters I have tried to analyze women and children health status, stage by stage, from international level to Indian village level.