CHAPTER VII

Women Empowerment with respect to Health

In India, the majority of the people living in rural areas is poorly served and at best receive only rudimentary healthcare. The government of India has launched a National Rural Health Mission (NRHM) on 12\textsuperscript{th} April 2005. The NRHM objectives indicate the motivation on the part of government to correct the rural-urban, inter-state and gender inequalities in health as a priority. United Nations Human Development Report (UNHDR) 2005 states that India does well on economic growth but fares poorly on human development. High infant and maternal mortality rates, skewed sex ratio, rising rural unemployment and stagnating agricultural wages are some areas of grave concern. Economic growth is meaningless without proportional social development. Most of the government operated rural health sub-centers, primary health centers and Anganwadi centers are on the verge of collapse.(Ojha, 2006).

The National Common Minimum Programme (NCMP) of the United Progressive Alliance (UPA) Government identifies health as an important thrust area. At 0.9\% of GDP, which translates into Rs. 200/- per capita, the total investment on health in India is among the lowest in the family of nations. The primary health infrastructure in rural areas suffers from shortage of infrastructure, buildings, manpower and funds for maintenance and upkeep. The present system of health planning and management provides centralized near uniform allocations for health related activities, largely impervious to district specific needs. The mission aims at integration of the multiple programmes of Health and Family
Welfare sector viz. Reproductive and Child Health programme, National Disease Control Programmes for Malaria, TB, Kalazar, Filaria, Blindness, Iodine Deficiency and Integrated Disease Surveillance programme. The National Rural Health Mission is a statement of hope and conviction. The government is committed to achieving the goals laid down in National Health Policy. For the underserved poor in the village level, the Mission spells hope in the form of a voluntary trained community health activist (ASHA) equipped with a drug kit; improved hospital facility at CHC (Community Health Centers); the Indian Public Health Standard (IPHS); availability of drugs for generic common ailments at Health Centres; access to universal immunization; referral and escort services for institutional delivery; nutrition and medical care at Anganwadi level on a monthly basis on Health Day, through mobile medical unit. (Singh, 2005).

Since independence, India has created a vast public health infrastructure of sub-centres, public health centers (PHCs) and Community Health Centers (CHCs). There is also a large cadre of health care providers (Auxiliary Nurse Midwives, Male Health workers, Female Health Visitors and Health Assistant Male). Yet, this vast infrastructure is able to cater to only 20% of the population, while 80% of health care needs are still being provided by the private sector. Rural India is suffering from a long –standing healthcare problem. More than 70% of India’s population lives in rural areas, but only 20% of the total hospitals beds are located in rural area. (Government of Assam, April 2007).

Maternal Mortality Rate (MMR) in Assam stands at 450 per 100000 live births. The main causes of deaths being toxemia, hemorrhage, anemia and sepsis. Many of these deaths are preventable but are frequent because of lack of knowledge and their lack of services. Birth Rate in rural areas is 28.7 per thousand
live births. A 1996 Multi-Indicator Cluster Survey (MICS) report showed that only 28.2 percent of the rural women went for antenatal checkup. According to Coverage Evaluation Survey report (1996) conducted in different district Iron Folic Acid (IFA) prophylaxis tablets distribution programme, 60-65 percent of the pregnant women are covered while the rest 40 percent needs to be covered under the programme. Infant mortality rate in 1998 was 80 per 1000 live births. On an average about 50-60 percent of children are given BCG and less than 50 percent are given DPT in the various district of Assam as revealed in the National Family Health Survey Report of 1999, women face higher risk of malnutrition, retardation in growth and development, disease, disability and even death in the age group between 14-45 years. Female children though biologically stronger when born than their counterparts have morbidity and mortality rates higher than the males. There are certain norms that affect women’s health like attitude to marriage, age of marriage, the value attached to fertility and sex of the child, the pattern of family organization and the ideal role demanded of women by social conventions. They determine her status in the family, the degree of her access to medical care, education, nutrition and other accessories of health. Improvement in the female health status depend on a number of income generating skills, decision making and availability of basic support services to carry out their multiple roles. Therefore the measures to improve their health status would call in for multi-sectoral package simultaneously for health as well as in social front. (NFHS, 2000-2001).

Women Empowerment Index in Health has been studied in terms of accessibility. Some accessibilities are availed at home like drinking water facilities, sanitation facilities, ventilation facilities, lighting facilities, access to household amenities, access to health centers, access to scientific chulla, access to separate
kitchen, access to leisure time etc. Some health related issues are number of children per women (considered here less than 3 children), marriage age of girl child (above 18 years) etc. Accessibility availed under some developmental schemes are access to family planning measures, access to facilities during delivery, access to supplementary food during pregnancy, access to ASHA workers, access to financial assistance after delivery (under Janani Surkhyya Yajana), access to free medicine like tetanus toxoid, iron/folic acid tablets, immunization and access to DDT spray etc.

7.1 Access to facilities related to health

In the present study access to health facilities includes drinking water facilities and sanitation facilities, ventilation facilities, lighting facilities, households amenities and access to health centers etc.

7.1.1 Drinking water facilities

The drinking water facility in a household are important because they can affect the health status of house holds members, particularly children. The NFHS contained question on the source of the water in the house hold used for bathing and washing as well as for drinking. In Assam regarding source of water for bathing and washing, 35% of house holds depend on well water, 29% get water from a hand pump (tube well), 22% depend on surface water (pond, river etc), and only 8% have piped water. Almost one-fourth of rural households use surface water for bathing and washing. Only 5% of rural house holds have piped water for bathing and washing National Family Health Survey (NFHS report, 1992-93). Regarding the source of drinking water, 11% of households have piped water, 32% get water from a hand pump, 35% from open wells and 12% from surface water.
But in the present study access to drinking water facility in the households has been considered. In the sample villages, river water facility are found to be as high as 30% in the upper medium village of Hajo C.D. block, followed by upper medium village of Sonapur C.D. block and lower medium village of Kamalpur C.D. block with 20%. In lower medium villages of Sonapur C.D block and Chandrapur C.D. block 10% households use river water. Utilization of well water is as high as 80% in the lower medium and 70% in upper medium village in Boko C.D. block. Similar share of households i.e. 30% in lower medium and upper medium village of Sonapur C.D. block, the upper medium village of Kamalpur C.D. block, lower medium village of Hajo C.D. block access well water. (Table: 7.1). Surface water as a form of pond is used by 40% households of lower medium village of the Hajo C.D. block, followed by both the villages of Boko, Chandrapur and Kamalpur C.D. block. In the sample villages’ river water is used for drinking water either as a lone source or in combination with others, percentages of households depending on these sources is around 30%. In sum drinking water facility is found to be much below the desired level as Tap water is almost absent. Tube well is procured by a considerable percentage of households which ranges from 10 to 70% households across the villages. This situation has an impact on the daily workload of women where women has to spend 30 minutes to 1 hour daily in fetching water for drinking purposes.

The analysis of variance for the facility shows a high significant variation in between and within the social groups with F value calculated at 13.865 against the table value of 2.6161 at 95% level of significance. Again, to understand the impact of this parameter on women empowerment index i.e. Y the correlation
analysis in employed. Access to safe drinking water facility is found to have positive correlation with r value stand at 0.465. (Table: 7.9)

7.1.2 Sanitation facilities

The NRHM strategy integrates health with sanitation and hygiene, nutrition and safe drinking water. (NFHS, 1992-93). In the sample villages sanitary latrine facilities seems to be as high as 30% in both the villages of Kamalpur C.D. block, followed by upper medium village of Boko C.D. block, both the villages of Chandrapur C.D. block and lower medium village of Hajo C.D. block with 20%, 16% and 12% respectively. 10% households in the lower medium village of Boko, upper medium village of Hajo and Sonapur C.D. block have sanitary latrine facility. The average percentage for the study area rest at 50.04% for non-sanitary latrine against the state average of 57% as per NFHS report, 1992-93. Use of open space for toilet, seems to be 55% of average rate in both the Tea garden area of Sonapur C.D. block. In Hajo C.D. block the average rate for both the villages is 50%, in Chandrapur it is 28% and in Boko have 25% households uses open space as for the purposes of toilet. (Table: 7.1). The sanitation facility depicts a gray scene where sanitary latrine is availed by a small percentage of households which varies from 8 to 24% across the sampled villages. On an average 16.36% households are availing sanitary latrine facilities against the state average of 35%. The rest of the households depend on non-sanitary latrine, and even open space, percentage of households varies from 20 to 60% and 10 to 60% respectively.

The analysis of variance for the facility shows a high significant variation in between and within the social groups with F value calculated at 8.135 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation
analysis in employed. Access to sanitation facility is found to have positive correlation with $r$ value stand at 0.787. (Table: 7.9)

**7.1.3 Access to ventilation facilities**

Ventilation facility in the selected households is found to be absent in a considerable share of households of tea garden and char community percentage of households being as high as around 80%. Poor ventilation is a cause of indoor air pollution and has a negative impact on health of the dwellers (Table: 7.6).

Here the analysis of variance shows a high significant variation in between and within the social groups with F value calculated at 5.252 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. the correlation analysis in employed. Access to ventilation facility shows a positive correlation with $r$ value stand at 0.915. (Table: 7.9)

**7.1.4 Access to lighting facilities:** Lighting facilities are considered as basis for understanding the standard of living. Quite unfortunately major shares of households have yet to avail electricity for lighting, despite the fact that the villages are electrified. It is observed at the time of investigation that sometimes the power department don’t take proper care in maintenance or the power is not supplied even to the electrified households. As such households have to depend on kerosene is the only source, the percentages varies from 60% to 84%, the average for the study area being 62.27% against the district average of 60.31%. Total absence of solar energy and other renewable sources depicts lack of awareness among people as one of the causes.

The analysis of variance for the facility shows a significant variation in between and within the social groups with F value calculated at 3.549 against the
table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis is employed. Access to electrification facility is found to be positively correlated with r value stand at 0.809. (Table: 7.9).

7.1.5 **Access to household amenities:** According to NFHS report, 1992-93, having access to a radio or television may expose household members to innovate ideas. On an average only 10% households in the study areas are availing television and 34% households could enjoy radio. Quite interestingly not a single households are availing radio and television facilities in the lower medium village of char areas. Bicycle is procured by 46% households as an average where as 47% households have clock or watch. According to NFHS report a refrigerator prolongs the wholesomeness of food; and a means of transportation allows greater access to services outside the local area. (Fig: 7.1). The above situation followed by almost non existence of car and nominal prevalence of motor cycle signifies poor access to services outside the local areas. Agricultural equipment, such as tractors, threshers and bullock carts are more likely to be owned by rural house holds. In the villages as a whole, only 3% of house holds have bullock cart. Except the upper medium village of Kamalpur C.D. block tractors are found to be totally absent in rest of the sample villages.
7.2 Access to Health centers

The medical facilities in the study area are studied in terms of distance required to avail the facilities like dispensary, hospital, maternity and child welfare centers, primary health center, primary health sub-centers, family planning centers and community health center. It is noticed that the villages with relatively better socio-economic status are availing medical facilities better (average distance is around 3 km.) than that of the lower level villages where villages have to cover as long as 7 km. distance for availing medical facilities. In the sample villages satisfactory level of medical facilities are seems to be as high as 44% respondents in the upper medium village of Kamalpur C.D. block and as low as 10% respondents in the sample villages of Sonapur C.D. block representing for tea tribe community. (Table: 7.1)

The analysis of variance for health facility shows a high significant variation in between and within the social groups with F value calculated at 8.392
against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to medical facility is found to have positive correlation with r value stand at 0.931. (Table: 7.9)

7.3 Marital status, marriage age and health

Marriage is important in its own right and also because it influences fertility and population growth, affects the nature of family relationships, and is inextricably linked to the status of women. (NFHS, 1992-93). The study reveals that average 80% women are ever married women, 10% are never married including young girls and aged women, only tiny proportions of women i.e. 5% are separated or divorced and 5% are widow women in the all sample villages of the selected households. Although, there is age wise variation of marital status of the women in the social groups of the villages. The NFHS report suggested that marriage is virtually universal in Assam and that marriages in rural areas take place at relatively young ages. In the report it is stated that, the median age at first marriage is higher among urban women than among rural women.

Table 7.2: Marital status and Index of Dissimilarity:

<table>
<thead>
<tr>
<th>Index</th>
<th>Schedule Tribe</th>
<th>Schedule Caste</th>
<th>Caste Community</th>
<th>General Caste</th>
<th>Tea garden Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index of dissimilarity</td>
<td>29.24</td>
<td>31.25</td>
<td>45</td>
<td>25.93</td>
<td>44</td>
</tr>
<tr>
<td>Index of similarity</td>
<td>70.76</td>
<td>68.75</td>
<td>55</td>
<td>74.07</td>
<td>56</td>
</tr>
</tbody>
</table>

Source: field survey.
The present studies is attempted to find out the Index of dissimilarity of marital status of the women members in the sample villages. It is devised to measure the net deviation in the percentage distribution of married and unmarried women in relation to divorced and widow women. It is computed from the marital status percentage differences of the two distributions. The accuracy of this computation is checked by summing up the positive and negative differences separately which should be equal. It gives the percentage of one marital status which is redistributed in order to make it exactly match the other marital status group. This is also known as the measures of displacement. From the calculation it is found that index of dissimilarity is as high as 45 in char community women and as low as 25.93 in general caste women in between married and unmarried women in terms of marital status. As against of this the similarities in between widow and divorced / separate women is found to be as high as 74.07 for general caste women and as low as 55 for char communities followed by tea garden community 56, schedule caste 68.75 and schedule tribe women 70.76 (Table: 7.3).

The marriage age seems to vary according to the social groups. The median age at marriage is found at 19.4 years for Schedule tribe community i.e. Boko C.D. block against the state level of 18.2 years. In case of Chandrapur C.D. block representative the schedule caste, the median age found at 17.1 years which is found to be high as compared to the state record of 16.5 years. The median age at marriage is calculated at 13.2 years for char community followed by tea garden community of 13.6 years. The above analysis gives a clear understanding that the median age at marriage seems to be as high as 19.4 years for schedule tribe and as low as 13.2 years for char communities. Differences in marriage age exist by religion with Muslims marrying three years earlier than Hindus. These norms is
well applied in the study area where the char community i.e. the Muslims has five years lower marriage age as compared to schedule tribe Hindu community. According to Child Marriage Restraint Act of 1987, the minimum legal age at marriage in India is 18 years for women and 21 years for men. In Assam, 44% of women who are age 20-24 were married before age 18. Perhaps because of its weak enforcement, the legal minimum age at marriage is not widely known among women in Assam. It is against this backdrop the char and the tea garden community requires urgent attention for overall improvement in the marriage age of women. Moreover, a good number of studies including NFHS report concludes that knowledge of minimum age requirement also varies by literacy and educational attainment. (NFHS, 1992-93). The high median age at marriage in char and tea garden community in the study areas may be supported by relatively poor educational attainment of women in the respective community. (Table: 7.3)
Table 7.3: Marriage age and number of women members against their Children in the selected households of the Sample villages

<table>
<thead>
<tr>
<th>Name of the C.D. Blocks</th>
<th>Group of the village</th>
<th>Number of women members against the children per women</th>
<th>Marriage age of girl child (in years)</th>
<th>Median Age at marriage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Below 2</td>
<td>2 to 3</td>
<td>3 to 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boko C.D. block</td>
<td>LM V</td>
<td>8 (16%)</td>
<td>13 (26%)</td>
<td>12 (24%)</td>
</tr>
<tr>
<td></td>
<td>UM V</td>
<td>9 (18%)</td>
<td>13 (26%)</td>
<td>12 (24%)</td>
</tr>
<tr>
<td>Chandrapur C.D. block</td>
<td>LM V</td>
<td>7 (14%)</td>
<td>14 (28%)</td>
<td>13 (26%)</td>
</tr>
<tr>
<td></td>
<td>UM V</td>
<td>8 (16%)</td>
<td>10 (20%)</td>
<td>14 (28%)</td>
</tr>
<tr>
<td>Hajo C.D. block</td>
<td>LM V</td>
<td>2 (4%)</td>
<td>5 (10%)</td>
<td>18 (36%)</td>
</tr>
<tr>
<td></td>
<td>UM V</td>
<td>2 (4%)</td>
<td>4 (8%)</td>
<td>20 (40%)</td>
</tr>
<tr>
<td>Kamalpur C.D. block</td>
<td>LM V</td>
<td>10 (20%)</td>
<td>11 (22%)</td>
<td>8 (16%)</td>
</tr>
<tr>
<td></td>
<td>UM V</td>
<td>11 (22%)</td>
<td>13 (26%)</td>
<td>12 (24%)</td>
</tr>
<tr>
<td>Sonapur C.D. block</td>
<td>LM V</td>
<td>3 (15%)</td>
<td>3 (15%)</td>
<td>4 (20%)</td>
</tr>
<tr>
<td></td>
<td>UM V</td>
<td>3 (15%)</td>
<td>4 (20%)</td>
<td>5 (25%)</td>
</tr>
<tr>
<td>Average</td>
<td>6.3</td>
<td>9.4</td>
<td>11</td>
<td>8.7</td>
</tr>
<tr>
<td>Percentage (%)</td>
<td>14%</td>
<td>21%</td>
<td>25%</td>
<td>19.7%</td>
</tr>
</tbody>
</table>

Source: Field Survey. Figure in the parenthesis indicates percentages.
LMV=Lower medium village, UMV=Upper medium village

The analysis of variance for marriage age shows a very high significant variation in between and within the social groups with F value calculated at 29.409 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Marriage ages of the women have found to be positive correlation with r value stand at 0.609. (Table: 7.9).
7.4 Women as home maker

Household work is essential for sustaining our social and economic structure. But at the same time it is petty, isolated, monotonous, involving unending hours of hands and unrewarding work. (Alexander, 1976). Though highly labour intensive it is yet unpaid. Thus, housework has no fixed hours, no holiday and no pay and it is done almost exclusively by women. Lenin’s definition of household work given so many years ago is as pertinent today as it was in his time. The drudgery of women’s work is also accompanied by psychological tensions and depressions, fear and anxiety. In a large majority of homes, the women is the slave without whose labour the whole structure of the family tends to collapse (Rice, 1989).

Field observations revealed that almost all the women respondents are involved in household work. The life of average women in the villages is an unmitigated series of household chores, cooking, washing utensil & cloth, tending children, fetching fuel & water etc. Thus, women are more likely to be exposed to health hazards in their homes since they spend more time within the domestic environment undertaking household activities. In the sample villages, it is found that more than 80% women have to cook their food, washing cloth and utensil, cleaning their house and fetching water. The married women are more responsible to look after their child. Besides in the rural areas joint family is very common. So sometimes it is also found that the other family members also take care of the child mainly the in laws members like grand father and grand mother etc. But some house holds are single family in the rural areas also. So in that situation the mother is the all in all for the family. She has to look after every thing and do every kind of work. In both the Tea garden areas of the Sonapur C.D. block majority is the
single family. So the proportion of child care percentage as daily work is high in the areas of the women respondents. Fetching fuel as a part of daily household work the women lying to be as high as in the sample villages of Hajo C.D. block which is more than 80% followed by the sample villages of Chandrapur C.D. block which is 66%. Based on the amount of livestock in the households, the women members have to look after the animals also. Different kind of animal rearing in the house holds are cow, goat, pig, bullock and some kind of poultry like hen, duck, pigeon etc. The women members engaged in animal rearing activities is seem to be as high as 70% in the sample villages of Boko C.D. block and as low as 30% in both the Tea garden areas of the Sonapur C.D. block. From the comparative analysis among the sample villages it is found that the women members engaged in the daily household work seem to be as high as in the Hajo C.D. block and as low as in Kamalpur C.D. block which is 83% and 68% respectively. In terms of type of daily household work of women members seems to be engaged as high as for washing utensil, cleaning house and cooking which is 86%, 85% and 83% respectively. (Appendix-V). Another some prominent activities in which women respondents are engaged includes, child care (64%), washing cloth (77%), fetching water (77%), fetching fuel (68%), mudding floor (72%), and animal rearing (50%). (Neog & Bora, 2010). This implies that a large number of women perform all the basic duties of a housewife expected in the Indian society.

7.4.1 Women’s household work and health

Village women often do several tasks simultaneously. Most of the rural women have to bear the exclusive burden of managing all the activities at home like cooking, child care, washing cloth and utensil, cleaning house, fetching fuel
and water, mudding floor, animal rearing and other many kind of work. Again they have to visit the social ceremony, religious functions and relatives’ house on time. So for such type of day to day work she has to be busy for whole day. As she is the mother, wife and in laws at her joint family, she has to take care of all family members from food to cloth. From morning till night the women members have to be busy with their work. While looking at rural women’s household and health issues, we need to consider the structural nature of women’s work and the totality of this work in its multifarious roles, activities, and the time spent as well as the intensity of time. Table 7.4 shows the daily workload of the women. Among the women it is also found that the married women have to give more time for daily household work. They are liable for husband, in laws, children and all the family members of the house to manage the daily household work. Though the other women members, like never married women, widow and separate women have to do the daily household work yet the married women play the main role to run the work for the family.

From the field survey report it is found that, the average time required for cooking is 2.2 hours, followed by 1 hour in child care, 0.45 hours in washing cloth, 0.40 hours in washing utensil, 0.35 hours in cleaning house, 0.50 hours in fetching water, 0.35 hours in fetching fuel and 0.20 hours in animal rearing. So it is found that in a day the women have to work almost 8 to 10 hours and enjoy 1 to 2 hours as leisure time. (Table: 7.4)

The analysis of variance of access to leisure time shows a very high significant variation in between and within the social groups with F value calculated at 18.750 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index
i.e. the correlation analysis in employed. Accesses to leisure time have found to be positive correlation with r value stand at 0.804. (Table: 7.9).

These types of high household work have adverse effect on the health condition of women causing serious illness. This figure seems to rest at similar levels across the sample villages. Again it is seen that women in the sample villages have diseases like backache, bodyache, head ache and cold /cough. Percentage of women suffer varies from 20% to 52% across the sample villages. These kind of illness arises due to high household work as reported by WHO -3- 1992, Geneva. (Fig: 7.2). Women seem to suffer from diarrhea may be due to lack of quality source of drinking water facilities. As revealed in the drinking water facility women has to fetch water from rivers and ponds almost in all villages which may lead to the diseases like body ache, ache in the limbs, waist and shoulders.

Table 7.5: Linkages between Rural Women’s Household work and Health

<table>
<thead>
<tr>
<th>Women’s work</th>
<th>Risk Factors</th>
<th>Illness / Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Household work/ Animal Husbandry work</td>
<td>Heavy workload, long hours, exposure to dust, house dust, tobacco, exposure to hazardous chemicals, carbon monoxides, lead, fungi, drudgery, repeated movement of few parts of body, postural problems, constant strains on eyes, poor light, low nutritional status</td>
<td>Respiratory problems, digestive problems, skin problems, backache, bodyache, head ache, cold/cough, diarrhea/dysentery, weakening of eyesight, exhaustion, dizziness, fatigue, tuberculosis, ulcer, tumors, heart disease, cancer.</td>
</tr>
<tr>
<td>2. Fetching water/ Fuel</td>
<td>Walking long distances, carrying heavy load, heavy physical strain even during pregnancy</td>
<td>Adverse effect on reproductive system, abortions, still birth, LBW, prolapsed, PID, septic. 2 Body ache, ache in the limbs, waist, shoulder s. Adverse effects on reproductive system, miscarriages, prolapse</td>
</tr>
</tbody>
</table>

Fig: 7.2: Common disease of the women members in the social groups

Source: Field survey

7.4.2 Access to fuel for cooking

In India, even today more than 90% of the households in the villages still rely on bio fuels. A variety of fuel is used like is fuel wood (79%), animal dung (77%) and crop residues (47%) to meet their daily cooking fuel requirements (Parikh, et. Al, 2002). In rural areas people still rely on traditional fuels and stove for working. Emissions from such source contain very harmful pollutants and combined with confined space and long duration of cooking, the resultant exposures are extremely high. Dangerous as the outdoor air can be to health, indoor air pollution actually possesses a greater health risk. It has been estimated that the largest number of deaths occurring due to indoor air pollution is in India. (Singh & Asgher, 2007).
In terms of use of Fuel in cooking, the women respondents uses mostly fuel wood, use of LPG is very nominal. Kerosene, animal dung and Crop residue as fuel is also used in the sample villages. Nearly 83 percent are using fuel wood, 11 percent use LPG and 3% people use crop residues, and only 2% houses use animal dung to meet their daily cooking fuel requirements. In the sample villages of Boko C.D. block 90% house holds uses fire wood and 10% uses LPG for cooking. In Chandrapur C.D. block 84% house holds use fire wood and 12% use LPG for cooking. Fog 7.3 shows the place of cooking and use of different types of fuel used for cooking in the sample villages by the women respondents. This shows heavy dependence of rural households on traditional fuel like wood, animal waste and agricultural residues etc. In the sample villages of Sonapur C.D. block only 5% house holds use kerosene for their cooking purposes. It is found that the use of fuel in cooking by the people depends upon the availability of the raw materials like wood, bamboo etc. from the local forest. Animal dung is used in the sample
villages of Chandrapur and Hajo C.D. block. Crop residue is used 14% house holds in the sample villages of Hajo C.D. block. (Fig: 7.3).

The analysis of variance of access to scientific chulla shows a significant variation in between and within the social groups with F value calculated at 5.168 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to scientific chulla facilities reflects a positive correlation with r value stand at 0.840. (Table: 7.9).

7.4.3 Access to cooking facilities and health

In India, 63 percent of all married women are engaged in household work, which roughly includes 8 years of their averages life span within the kitchen alone (Chatterjee,1988). Kitchen work includes other processes that are involved before and after cooking such rice and pulses cleaning, besides serving food and feeding the young and so on. In the present study kitchen is found either in the living room or attached with the living room. A nominal share of households have separate kitchen. However, the Schedule Tribe community by tradition has separate kitchen, the percentage of households is 92%. Again 8% house holds have kitchen attached with the living room. In the sample villages of Chandrapur C.D. block, 72% house holds have kitchen attached with the living room, 15% households have kitchen within the living room and 13% have separate kitchen. In the sample villages of Hajo C.D. block 56% households have attached kitchen, 28% households have kitchen within the living room, 10% households have separated kitchen and 6% cook in open air. (Neog, 2010). In the sample villages of Kamalpur C.D. block, 70% respondents kitchens are attached with the living room, 8% house hold’s kitchen are found within the living room and 22% have separated kitchen. In both
the Tea garden areas of the Sonapur C.D. block 70% house holds have kitchen within the living room, 20% house holds have kitchen attached with the living room and 10% respondents cook in the open air or angoon. From the field survey it is found that the place of cooking is determined by the economic condition as well as by the social customs of the family. Most of the kitchens are environmentally harmful, unsafe and unhygienic. (Table: 7.1). Among the household features, place of cooking is important because the concentration of smoke particles are quite high when cooking is done indoors in a multipurpose room/veranda without partition or in a attached kitchen inside the house. Cooking is mostly done with fire wood in traditional cook stove. Emission from such source condition harmful pollutants combined with confined space without ventilation and long cooking hours (Table: 7.4) results in health hazard causing respiration diseases to women. Smoke from biofuels contains several hazardous pollutants viz. particulate matter carbon monoxide, nitrogen dioxide, formaldehyde, polycyclic organic matter including carcinogens like benzo (a) pyrene benzopyrene. Exposure to indoor air pollution from combustion of unprocessed biomass fuels is an important cause of morbidity and mortality in the rural areas where the use of biofuels is quite high. Further indoor air pollution is said to cause various respiratory diseases, viz. acute respiratory infections, chronic obstructive pulmonary diseases, lung cancer, asthma, tuberculosis, low birth weight, cataract etc. [(Table:7.5)(WHO /PEP/1992-3, Geneva.)].

The analysis of variance of access to separate kitchen facilities shows a very high significant variation in between and within the social groups with F value calculated at 46.237 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women
empowerment index i.e. $Y$ the correlation analysis in employed. Access to separate kitchen facility has been found to have positive correlation with $r$ value stand at 0.511. (Table: 7.9).

7.5 Access to developmental programmes on health for empowering women

The importance of safe motherhood practices and child survival cannot be exaggerated in a country that has experienced high infant and child mortality and maternal mortality. The primary objectives of the maternal and child health services was to provide basic public health services to vulnerable groups of pregnant women, locating mothers, and preschool children (Kanitkar, 1979). Since then, the promotion of health of mother’s children has been one of the most important aspects of the Family Welfare Programme in India and has now been further strengthened by introducing the Child Survival and Safe Motherhood Programme (Ministry of Health and Family Welfare, 1992). The Ministry of Health and Family Welfare has also sponsored special schemes, under the Maternal and Child Health Programme, including the Programme of Oral Rehydration Therapy, development of Regional Institute of Maternal and Child Health in states where infant mortality rates are high, the Universal Immunization Programme, and the Maternal and Child Health Supplemental Programme within the Post-partum Programme (Ministry of Health and Family Welfare, 1992). Some of the popular and vibrant schemes being observed in the field study are discussed below

7.5.1 Access to Anganwadi facilities: Anganwadi Centre (AWC) would act as the hub for the implementation of the Indira Gandhi Matritva Sahyog Yojana
(IGMSY) at the grassroots level. The Anganwadi Workers would be responsible for the implementation of the scheme with the support of AWH. The specific roles and responsibilities of these functionaries for the effective implementation of IGMSY would include Anganwadi Worker (AWW) would be the focal person for the effective implementation of the IGMSY at village/ward level. In order to ensure effective implementation of the Indira Gandhi Matritva Sahyog Yojana (IGMSY) at the grassroots level, each AWW would be required to perform the functions of Anganwadi Helper and (ASHA) Accredited Social Health Activist. The Anganwadi Helper (AWH) would provide assistance to the AWW in discharging her duties for effective implementation of the IGMSY at the village level. She would support in collecting data/information on the pregnant and lactating women in the community, support health workers in carrying out health checkups, ANC and immunization, bring pregnant and lactating mothers to the AWC on VHND, among other responsibilities. The AWH would also help the AWW in ensuring the compliance of conditions of the scheme and that the cash benefits are reaching to the actual beneficiary. (MWCD, 2005). In the NRHM there is guidelines for the adolescent girls (AG) Scheme in its present form is being implemented through Anganwadi Centres in both rural and urban settings. Under the Scheme, the adolescent girls who are unmarried and belong to families below the poverty line and school drop-outs are selected and attached to the local Anganwadi Centres for six-monthly stints of learning and training activities. The objective of the Scheme is to increase self-confidence, boost moral levels and give dignity. (MHRD, 2000).

7.5.2 Access to ASHA: During the Antenatal Care (ANC) at the health center, vital milestones of pregnancy are noted. Ideally, apart from the ANC at
registration, three ANCs are necessary and are mandated under NRHM. Periodic antenatal check-ups help in early detection, management of complications, timely advice and appropriate referral. This can help improve maternal and neonatal survival. ANC is a key entry point for a pregnant woman to receive a broad range of health promotion and preventive health services, including nutritional support and prevention and treatment of anemia and other infectious diseases associated with reproductive health. Under the NRHM, the Village Health and Nutrition Day (VHND) is organized once every month at the AWC in the village. On this day, AWWs, ASHAs and other health workers mobilize the villagers, especially women and children, to assemble at the AWC. The ANM and other health personnel are also required to be present at AWC on this day to provide maternal health care to pregnant women from the community. ASHA and other health workers should ensure that every pregnant woman registered under the IGMSY receives the required ANCs. In order to receive the cash benefits under the IGMSY, every pregnant mother would have to mandatorily attend at least one ANC. (Government of Assam, 2006).

7.5.3 Access to Janani Suraksha Yojana (JSY): It was launched in 2005 with an objective to increase institutional deliveries. Under the scheme, the government provides a cash incentive for pregnant mothers to have institutional births as well as pre- and ante-natal care. The JSY primarily aims at promoting institutional delivery while NMBS component (payment of Rs.500/-) within the Scheme is fairly limited. According to the October 2006 JSY guidelines, all women in Low Performing States (LPS) receive cash assistance if they have their baby in a government health centre or accredited private institution. In rural areas they receive Rs.1400 and in urban areas Rs.1000. The money is to be dispersed at
the time of delivery in the institution. The cash assistance to the mother is mainly to meet the cost of delivery. Under JSY, below poverty line pregnant women above 19 years of age also receive Rs. 500 cash assistance for their first two births if these deliveries are at home. The cash is to be given at birth or around 7 days before for “care during delivery or to meet incidental expenses of delivery.” Under JSY package for institutional delivery including early initiation of breastfeeding and ensure colostrum feed. As per JSY norms Second (3 Months after delivery) the birth of the child is registered. The child has received OPV and BCG at birth, OPV and DPT at 6 weeks, OPV and DPT at 10 weeks and attended at least 2 growth monitoring and IYCF counselling sessions within 3 months of delivery. Early registration of pregnancy is essential for availing facilities offered by the health care services to assess the health and nutritional status of the pregnant woman. It also helps to screen for complications early in the pregnancy. Early identification and registration of pregnancy is being promoted by the Government of India primarily through National Rural Health Mission (NRHM) and Janani Suraksha Yojana (JSY). (MWCD, 2005).

7.6 Women and motherhood: Reproductive health of women

From the point of view of fertility trends is the proportion of females who marry young. The role of women as a mother is crucial which is examined in the present study in terms of number of children per women. As revealed in fig 7.4 women in the char community has maximum number of children mostly 3 to 4 and above 4, percentages of women being 40% and 30% respectively. Number of children per women is relatively high in the tea garden community followed by schedule caste, schedule tribe and general caste.
The analysis of variance of the variable children less than 3, shows a high significant variation in between and within the social groups with F value calculated at 5.740 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. The women who have less than 3 Children found to be positive correlation for women empowerment with r value stand at 0.794. (Table: 7.9).

Fig 7.4: Women against their number of children among the social groups

Source: Field survey

7.6.1 Access to family planning measures: In terms of family planning measures a major share of women show their dissatisfaction that is around 60 to 90% in the sample villages.

The analysis of variance for the facility shows a high significant variation in between and within the social groups with F value calculated at 7.894 against the table value of 2.6161 at 95% level of significance. Again to understand the
impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to family planning measures have found to be positive correlation with r value stands at 0.940. (Table: 7.19).

### 7.6.2 Access to facilities during delivery

In the rural areas of India, maternal and child health services are delivered mainly by government-run primary Health Centers and Sub-centers. Services for pregnant women and children can also be obtained from private and public maternity homes or hospitals, as well as from private practitioners. The female Health Worker, who is an Auxiliary Nurse Midwife, renders maternal and child health and family welfare services (Ministry of Health and Family Welfare, 1992). She is responsible for registering pregnant women and assessing their health throughout pregnancy in their homes or in the antenatal clinic. But at present times the ASHA karmees keep such types of records. Antenatal care (ANC) is a maternal care indicators refers to pregnancy-related health care provided by a doctor or a health worker in a medical facility or at home. Antenatal care can contribute significantly to the reduction of maternal mortality and mortality because it includes advice on the correct diet and the provision of iron and folic acid tablets to pregnant women. Improved nutritional status, couple with improved antenatal care, can help to reduce the incidence of low birth weight babies and thus reduce prenatal, neonatal, and infant mortality. A pregnant woman can receive antenatal care by visiting a doctor or other health professional in a medical facility, or by receiving a home visit from a health worker or both. Mothers did not receive antenatal care for 54% of birth in rural areas. Allopathic doctors provided antenatal care for 32% of the birth in rural areas. Antenatal care at home from health workers is actually more common among birth to illiterate and less educated
Hindu mothers are more likely to be covered by antenatal care than are Muslim and Christian mothers. Mothers from schedule tribes are less likely to receive antenatal care than are mothers from either schedule or non-schedule castes. In fact the births to schedule caste mothers are more likely to receive antenatal care than birth to non-Schedule Caste/Schedule Tribe mothers. (NFHS, 1992-92).

7.6.2.1 Access to institutional delivery: Institutional delivery plays a very vital role in reducing the maternal and infant mortality since institutional delivery is always safe. Regarding the access to rural health facilities it was observed that very few went to qualified doctors. Regarding their reproductive health most of them reported that they did not go for antenatal and postnatal check ups. Nearly 80 percent reported that delivery was conducted at home by dais or by relatives. With reference to NFHS report 1992-93, such kind of women are likely to have delivery complications like caesarean, septic, uterine rapture, perennial tear, tetanus, obstructed labour etc. The foregoing analysis gives us a clear understanding that health condition of women is adversely affected as they are over taxed with repeated child birth under improper place of delivery.

From the standpoint of child survival and the health of the mother, it is advantageous for babies to be born under hygienic conditions with the assistance of a trained medical practitioner. Fig: 7.4 presents the place of delivery in the house holds of the sample villages. Only 15% of birth occurred in medical institutions out of which 13% in public institutions and 2% in private medical institutions. 78% women have received delivery in own house and only 7% delivery is done in the parent’s house. The proportion of births taking place in medical institutions is lower among births to older women than among those to
younger women. According to NFHS report the antenatal visits, tetanus immunization, and iron and folic acid supplements, institutional deliveries are also more common among the births of well educated women than among the births of poorly educated women, more common among Hindus than among either Muslims or Christians, and are less common among the births to women of schedule tribes than among births to other women. (NFHS report, 1992-93). (Fig:7.5)

The analysis of variance of access to institutional delivery shows a high significant variation in between and within the social groups with F value calculated at 11.994 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to institutional delivery facility has found to be positive correlation with r value stand at 0.811. (Table:7.9)

Fig 7.5: Place of delivery of the women members among the social groups

Source: Field survey

7.6.2.2 Access to assistance during delivery: The great majority of birth in the house holds is delivered without assistance from a formally trained medical
person or doctor. (NFHS, 1992-93). (Fig: 7.5). The similar situation is observed while interviewing the women respondents in the study area. The situation is worst in case of tea garden community followed by char community where percentages share of women in aforesaid category rest at 70% and 40% respectively. Among the deliveries 4% are attended by nurse/midwives where as 48% are attended by Traditional Birth Attendants (TBA). Because a large proportion of births take place at home, it is not surprising to find that relatives and neighbors play a major role in assistance during deliveries. (Fig: 7.6).

The analysis of variance of the facility shows a high significant variation in between and within the social groups with F value calculated at 11.189 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to assisting during delivery has found to be positive correlation with r value stand at 0.809,(Table: 7.9).

Fig 7.6: Attendant assisting during delivery of the women members among the social groups

![Attendant assisting during delivery](image)

Source: Field survey
7.6.3 Access to free medicine

Under-nutrition, especially in infant and young children, adolescent girls and women results in increased susceptibility to infections, slow recovery from illnesses, cumulative growth and development deficits leading to reduced productivity and a heightened risk of adverse pregnancy outcomes for women. A woman’s nutritional status has important implications for her health as well as the health and development of her children. A woman with poor nutritional status, as indicated by a low body mass index (BMI), short stature, anaemia, or other micronutrient deficiencies, has a greater risk of obstructed labour, having a baby with a low birth weight and adverse pregnancy outcomes resulting in death due to postpartum hemorrhage, illness for herself and her baby and adversely affecting lactation. (MWCD, 2005). Accesses of free medicine are discussed under the following heads.

7.6.3.1 Access to tetanus / toxoid: Monthly supply of Iron and Folic Acid (IFA) tablets would be given to every pregnant woman at the Anganwadi Center or Health centre or during ANC during this period, along with tetanus vaccination due. Nutrition and health education would also be carried out by the AWW and the health functionary who would also facilitate the services to the beneficiary. The details of the services availed would be duly recorded in the Individual Mother and Child Protection Card common to ICDS and NRHM. In India, an important cause of death among neonates is neonatal tetanus, which is caused by infection of the newborn by tetanus organisms. Neonatal tetanus is most common when the delivery takes place in an unhygienic environment and unspecialized instruments are used for cutting the umbilical cord. When tetanus developed, where expert medical help is not available, as is common in many rural areas, the fatality rate is
close to 100 percent. (MWCD, 2005). In the present study only 22% house holds have been provided Tetanus Taxied Vaccination. (Table: 7.7)

The analysis of variance of the facility shows a high significant variation in between and within the social groups with F value calculated at 12.857 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to tetanus toxoid facility has found to be low positive correlation with r value stand at 0.296. (Table: 7.9).

7.6.3.2 Access to iron folic acid tablets: Monthly supply of Iron and Folic Acid (IFA) tablets would be given to every pregnant woman at the Anganwadi Center or Health centre or during ANC during this period, along with tetanus vaccination due. (MWCD, 2005). In the present study 16% house holds women are provided Iron /folic acid tablets. (Table: 7.6).

The analysis of variance shows a high significant variation in between and within the social groups with F value calculated at 5.238 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to iron folic acid tablets has found to be positive correlation with r value stand at 0.884. (Table: 7.9).

7.6.3.3 Access to immunization: Immunization of pregnant women and infants protects children from six vaccine preventable diseases - poliomyelitis, diphtheria, pertussis, tetanus, tuberculosis and measles. These are major preventable causes of child mortality, disability, morbidity and related malnutrition. Immunization of pregnant women against tetanus also reduces maternal and neonatal mortality. This service is delivered by the Ministry of Health and Family Welfare under its
Reproductive Child Health (RCH) programme. Immunization of children has been identified as a major step towards ensuring child survival and that helps in convincing people about the concept of small family norm. (MWCD, 2005). In the present study Pulse/polio Vaccination is availed by 50% households, 31% free Vaccination has been provided in the households of the sample villages. (Table: 7.6).

The analysis of variance of the facility in the study areas shows a high significant variation in between and within the social groups with F value calculated at 9.602 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to immunization facility has found to be positive correlation with r value stand at 0.882. (Table: 7.9).

**7.6.3.4 Access to DDT spray:** Malaria is an acute parasitic illness caused by plasmodium falciparum or plasmodium vivax. The National Health Policy (2002) has set the goal of reduction in mortality on account of malaria by 50% by 2010 and efficient morbidity control. Assam is prone to malaria transmission mainly due to topography and climatic conditions. For Malaria eradication DDT sprayed is one of a objectives by the government of Assam through NRHM. (Government of Assam, 2007). Satisfaction level of DDT sprayed in the sample villages of Hajo and Kamalpur C.D. block is only 2% and 4% where as in the rest of the study area the same is sprayed in a small share of households. (Table: 7.6).

The analysis of variance of Access to DDT spray facility in the study areas shows a very high significant variation in between and within the social groups with F value calculated at 16.938 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women
empowerment index i.e. $Y$ the correlation analysis in employed. Access to DDT spray facility has is found to have low positive correlation with $r$ value stand at 0.615. (Table: 7.9).

**7.6.4 Access to financial assistance:** Under Janani Suraksha Yojana, (JSY), provides cash assistance for Institutional Delivery. The benefits under JSY are linked to pregnant women getting the delivery conducted in health centres / hospitals. [Early initiation of breast feeding and colostrum feeding may also be ensured]. No cash transfer has been envisaged under IGMSY at the time of delivery since it is covered under JSY. In order to receive the cash benefits under the IGMSY, every pregnant mother would have to mandatorily attend at least one antenatal center. (MWCD, 2005). Getting financial assistance after delivery as high as 58% women respondents are seems to be satisfied in the Kamalpur C.D. block and as low as 15% women are satisfied in the Hajo C.D. block.

The analysis of variance for the facility shows a high significant variation in between and within the social groups with $F$ value calculated at 12.844 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. $Y$ the correlation analysis in employed. Access to financial assistance after delivery has found to be positive correlation with $r$ value stand at 0.843. (Table: 7.9).

**7.6.5 Access to Supplementary Nutrition (SNP):** The IGMSY would facilitate early registration of pregnancies in target districts through conditional cash transfer. Although, registration of pregnancy should ideally be within two months, under IGMSY registration within four months of pregnancy would be the first milestone for receiving cash benefits of Rs.1500/- at the end of second trimester. Every registered mother under the IGMSY would have a Mother and
Child Protection Card. Early registration at the Anganwadi Center would also ensure that the woman gets the benefit of Supplementary Nutrition (SNP) and regular counseling under ICDS during the pregnancy. The woman should have attended at least one counseling session at the Anganwadi Center (AWC) or village health and nutrition day (VHND) for the condition to be fulfilled. (MWCD, 2005).

In terms of Supplementary Nutrition (SNP) a major share of women show their dissatisfaction that is around 50 to 80% in the sample villages except the Kamalpur C.D. block where the percentages share rest at around 64%.

The analysis of variance for the facility shows a high significant variation in between and within the social groups with F value calculated at 14.710 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to SNP facilities has found to be positive correlation with r value stand at 0.832. (Table: 7.19).

**7.6.6 Access to ASHA karmees:** Accredited Social Health Activist (ASHA) and other health workers should ensure that every pregnant woman registered under the IGMSY receives the required Antenatal care (ANC). The (ASHA) is a female voluntary worker in the rural area. The other responsibilities are facilitating Antenatal care for all pregnant women registered under IGMSY, facilitate immunization of infants and young children, ensure attendance of pregnant women on the village health and nutrition day (VHND), support Anganwadi Workers in carrying out nutrition and health education, community sensitization and awareness generation, coordinate with the Anganwadi Workers and the auxiliary nurse midwife (ANM). (MWCD, 2005). The ASHA workers are found to be as high as 28% in the Kamalpur C.D. block, followed by Boko, Chandrapur and
Sonapur C.D. block with 24% and 22% respectively and as low as 14% in Hajo C.D. block. As reported by the respondents at the time of investigation, they are totally at dark regarding even existing of the aforesaid facilities. (Table: 7.6).

The analysis of variance of the scheme shows an insignificant variation in between and within the social groups with F value calculated at 2.368 against the table value of 2.6161 at 95% level of significance. Again to understand the impact of this parameter on women empowerment index i.e. Y the correlation analysis in employed. Access to ASHA worker facilities has found to be positive correlation with r value stand at 0.762. (Table: 7.9).

7.7 Prevalence of Social weaknesses with respect to health

This analysis pertains to understanding of the status of certain health parameters as perceived by the rural women. On some superstitious belief like preference of male child, use of jaributies, use of tantra mantra and sacrifice of life for god. The qualitative response are quantified following a weighted score method, where response is scored at 1. These scores are multiplied by number of women respondents and thereby the total score for a sample village is found out. These score is termed as actual score for the villages. The ideal situation should be free from all the negative inputs for women empowerment. Therefore while multiplying by 1 with the total samples the expected score rest at 50 for all the villages excluding Sonapur C.D. block with a score of 20. The actual scores are found to be much below the expected score in all the villages along all the components. The negative components, like use of ‘jaributies’ and belief of ‘tantra mantra’ the actual score seems to be as high as 40 which is two times more than the expected score in the sample villages of Sonapur C.D. block.
Table 7.7: Prevalence of Social weakness as perceived by women respondents in the sample villages

<table>
<thead>
<tr>
<th>Name of the C.D. blocks</th>
<th>Groups of the Sample villages</th>
<th>Social weakness (weighted score)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Preference for Male child</td>
<td>Use of ‘Jaributies’</td>
</tr>
<tr>
<td></td>
<td>AS 2</td>
<td>ES 0</td>
</tr>
<tr>
<td>Boko C.D. block</td>
<td>L.M.V 60</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>U.M.V 60</td>
<td>80</td>
</tr>
<tr>
<td>Chandrapur C.D. block</td>
<td>L.M.V 64</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>U.M.V 64</td>
<td>82</td>
</tr>
<tr>
<td>Hajo C.D. block</td>
<td>L.M.V 80</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>U.M.V 80</td>
<td>90</td>
</tr>
<tr>
<td>Kamalpur C.D. block</td>
<td>L.M.V 50</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>U.M.V 50</td>
<td>70</td>
</tr>
<tr>
<td>Sonapur C.D. block</td>
<td>L.M.V 36</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>U.M.V 36</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: Field survey, AS & ES = Actual score and Expected score.

Preference for male child, the score seems to be as high as 36 in the sample villages of the same block followed by the sample villages of Hajo, Chandrapur, Boko and Kamalpur C.D. block with 80, 64, 60 and 50 respectively. In terms of sacrifice of life for god the score seems to be as high as 80 in the sample villages of Boko C.D. block followed by the sample villages of Hajo, Sonapur, Kamalpur and Chandrapur C.D. block with 82, 26, 61 and 60 respectively. The rural women are seems to be affected by the aforesaid negative beliefs. Therefore, the whole empowerment process is challenge by low prevalence of positive parameters and high prevalence of negative parameters. (Table: 7.7).

7.8 Inter variable relationship of women empowerment with respect to Health

Women empowerment with respect to health is observed with the help of correlation matrix (Table: 7.8) which represent an overall scenario for all the
sample villages of the study area. With regard to the variable (HLTX10) i.e. children less than 3 which may be a parameter to determine the health of a woman is showing strong correlation with (HLTX19) access to iron/folic acid tablets and HLT(X20) access to immunization. Likewise (HLTX17) access to financial assistance after delivery is again highly related with (HLTX19) access to iron/folic acid tablets and (X20) access to immunization (Table: 7.8).

To find out the inter relationship among the variables across the 3 sections of women empowerment viz. health, education and economic multiple correlation method have been adopted. Study reveals that the variables from (EcX1) access to Self Help Groups and (EcX6) access to adopting economic activity have positive correlation with (HLTX12) i.e. access to medical facility. Again (HLTX1) access to drinking water facility, (HLTX2) access to sanitation facilities, (HLTX3) access to ventilation facility and (HLTX7) access to scientific chulla have positive relation with (EcX6) i.e adoption of economic activity. The variable (HLTX9) access to leisure time has positive relation with (EcX1) access to Self Help Group, (EcX2 access to loan facility, (EcX3) access to subsidy, (EcX4) access to training facility, (EcX7) access to Na-bow/ Baidew scheme, (EcX8) access to Udisha scheme, (EcX9) access to Swa-shakti and (EcX10) access to join Gramyashree Mela/Sale center. (Appendix-VI)

7.8.1 Variation on factors of women empowerment with respect to health

In order to analyze the variation of variables selected to observe the women empowerment with respect to health, the Analysis of Variance (ANOVA) has been employed. Out of 22 variables 21 are found to varied significantly. These are (X1) access to safe drinking water facility, (X2) access to sanitation facilities,
(X3) access to ventilation facility, (X4) access to electrification facilities, (X5) access to agricultural land, (X6) access to livestock facilities, (X7) access to scientific chulla, (X8) access to separate kitchen facilities, (X9) access to leisure time, (X10) children less than 3, (X11) marriage age, (X12) access to medical facilities, (X13) access to institutional delivery, (X14) access to assistance during delivery, (X15) access to SNP facilities, (X17) access to financial assistance after delivery, (X18) access to tetanus toxoid, (X19) access to iron/folic acid tablets, (X20) access to immunization, (X21) access to family planning measures, (X22) access to DDT spray. One variable show an insignificant variation which is (X16) i.e. access to ASHA workers. (Table: 7.9)

While examining the relationship between the health variable with that of decision making capacity of women it is observed that the variables like (HLTX1) access to ventilation facility, (HLTX3) access to electrification facility, (HLTX7) access to scientific chulla and (HLTX9) access to separate kitchen have positive correlation. As these inaccessibility to the aforesaid facilities are the cause of some common diseases of women, established by the WHO /PEP/1992-3, Geneva, report, it is evident that poor is the accessibility poor will be health condition and low will be the decision making capacity of women. Likewise decision making capacity has positive relation with (HLTX12) access to medical facilities, (HLTX13) access to institutional delivery and (HLTX21) access to family planning measures.