CHAPTER V

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The present study was undertaken to assess the existing health practices among the tea tribes' women workers of Dibrugarh District. Detail informations on socio demographic profiles and physical environmental factors were also observed minutely during investigation.

The study made use of descriptive survey approach adopting the multiple predictor correlation and interaction comparison design. The study was conducted in sixteen randomly selected tea gardens of Dibrugarh District of Assam. The study population comprised of woman workers in the age group of 15 – 50 years and above of the selected tea gardens. Total One thousand one hundred and ten women comprised of the study sample and were selected by systematic random sampling technique.

Based on the objectives, conceptual frame works were framed and data collection instruments and the techniques were used to elicit data.
1. Demographic & Socio economic Characteristics

This sub-chapter is devoted to highlight the socio demographic and socio-economic characteristics of the woman workers in sixteen selected tea gardens.

The ethnic composition of the woman workers in sixteen different tea gardens is heterogeneous in nature. Table: 1.1 shows, the ethnic composition of the woman workers. It has been observed that the selected women and their families are distributed in 35 different caste/tribe groups which include Oraon (166, 14.95%), Munda (151, 13.06%), Karmakar(99, 8.92%), Tanti (86, 7.75%), Nayak (53, 4.77%), Bhuyan (52, 4.68%), Santhal (51, 4.59%), Sabar (48, 4.32%), Gawala (40, 3.60%), Gour (40, 3.60%), Rajuwar (39, 3.51%), Rabidas (35, 3.15%), Bhumij (30, 2.70%) and Mahali (23, 2.07%). Besides, there are some more caste/tribes found during investigation. They are Kurni, Ghatuwar, Pator, Tassa, Malpaharia and Keot. These castes/tribes contributed 7.75% of the sample.

The social surroundings of the tea gardens are hetero ethnic in composition. Though tea garden population have settled in large numbers in the area, there are other people belonging to other ethnic groups like the Kacharis, the Mataks, the Mairans, the Ahoms and Bengalis. The
members of each community speak their own language, but they are well versed in Assamese language also.

Age-wise distribution of the woman workers shows that the majority of the female workers (51.36%) were found within the age of 25 to 39 years. The percentage distribution of the women workers in the reproductive age group i.e. 15 to 44 years of age is found to be about 87% (table 1.2). Again Age distribution of the members of the woman workers shows that 14.06% were under five children and 10.01% were 50 and above age (table 1.3). Again out of the female’s population, 46.94% were in the reproductive age group (that is 15 to 44 years). Higher percentage of under fives and also higher average family size which is calculated as 5.93 indicate that fertility in tea gardens is quite high. Again male-female ratio was calculated to be 1000:938 in the sampled families. This sex ratio is more or less equals the sex ratio of Dibrugarh district, which is 1000:931 (Census, 2001).

It has been observed from the present study (table 1.4) that most of the families (i.e. 72.19%) belonged to nuclear while 20.36% belonged to Joint and only 7.43% belonged to extended families. Thus it is observed that in the tea tribes community also the joint family system is gradually lost its significance and gives away its place to nuclear family. Patowary AC et.al. (1988) in their study also observed that 79% families were nuclear family and Joint families accounted for only 21% in 10 districts of Assam whereas in Kamrup District 69.14% of the families
were nuclear families and 30.86% were joint families. The present findings is almost similar with that of Patowary A.C. et al. (1988) though Patowary A.C. et al. conducted study in villages but present study was conducted at tea gardens of Dibrugarh District. Sister Molly Joseph conducted a study in tea gardens of Tinsukia districts and found 72% nuclear families and 12% extended families which is very much similar to present findings.

The religious status of the women in the selected gardens shows that they are mostly Hindus (77.39%) followed by Christians (22.61%) (table 1.5). Although there are a few Muslim families working in the tea gardens, their number is very small and as such no Muslim women was included in the study. It is to be mentioned here that originally these tea tribes were Hindus when they were first brought from their place of origin by the British to Assam to work in the tea gardens. Later a few of them converted to Christianity. Among the Hindus most of them believe in a supreme being called Sing Bonga, which literally means "Sun God". "Sarna" is their own religion, in which they worship nature, is supposedly not part of Hinduism as emphasized by some scholars.

A detailed study was made to understand the level of literacy of the people as well as their attitude towards formal education of their children. By and large, the educational status does not seem to be very encouraging in most of the tea gardens. The children, specially the girls
are engaged to look after the younger ones during the working hours of their parents. They are also engaged in household activities in the absence of their mothers. Moreover, the people reluctant to send their children to school as they considered they will work in the garden generation after generations so that, without having qualification, they would earn income for their livelihood. In the present study, most of the women workers were found to be illiterate (70.18%) and just literate (8.11%), primary education (10.18%) whereas less than 1% of the workingwomen were either HSLC passed or college educated (table 1.6). But it is heartening to note that the attendances of school children are increasing day by day. It may be due to the mid-day meal programme launched by the Government. So, parents as well as students get encouragement to enter formal school, though school drop out is a common phenomenon in the tea gardens. In the present study the literacy status of the family members (Table 1.7) reveals the fact that majority of the members (55.46%) were illiterate and percentage of HSLC passed or above is negligible, contributing less than 1% of the total. Again sex wise literacy rate shows that literacy among males was 52.21% whereas among female it was found quite low, only 36.37%. Study conducted by Baruah Tultul (2000), in her study ‘Munda in Tea Plantation, A study in their health behaviour, Dibrugarh District’ observed that only 5% females had the literacy level up to class V.

Marital status of women workers in selected tea gardens of Dibrugarh District shows that out of 1110 woman workers, 7.12% were
widows and 4.23% were separated. Majority of them (88.65%), have been enjoying married life (table 1.8).

The table 1.9 which shows the number of children alive reveals that except 57 women who yet to become mother, the woman workers had given birth a total of 4835 children out of which 4261 children found alive at the time of the survey and 574 (11.87%) children died during infancy and child birth. The average number of children born and alive is calculated as 4.60 and 4.35 respectively. The study further reveals that 12.45% of the women had even 7 to 10 alive children. Considering the average number of children born, it can be concluded that fertility among the woman workers in the tea garden is quite high. Again the fact that a large number of the woman workers were in the early part of the reproductive period (from table 1.2), the average number of children born to them would be more than 4.6 at the end of their reproductive span.

Regarding the employment status of the woman workers in selected tea gardens of Dibrugarh District, it is found that 69.01% workers were permanent workers who get regular pay and other benefits and earn wages for 12 months with 14 days leave in a year. The temporary workers which contributed about 31% of the selected women are usually recruited on daily basis during busy seasons to carry out plucking operation. They are usually engaged in the month of May to November in a year. During their employment the casual workers are also entitled to ration of rice and
atta at a nominal price (Rs 0.54/ Kg) besides their daily wage paid fortnightly. The casual and the unemployed females often work in the paddy fields in the neighbouring villages as wage earners (table 1.10).

The table 1.11, which shows the occupational status of the family members (including the woman workers), reveals the fact that 43.31% engaged in the tea garden, 5.9% worked outside the garden as manual worker/ agricultural worker and 1.44% (mainly children) as domestic help. In the tea garden the system of recruitment is such that employment is offered to the wives of the workers at the first opportunity and also to the employable children above the age of 14 years. In view of the system of recruitment and method of employment, proportion of men and women worker including the children employed is almost equal.

The table 1.12, which shows per capita income of families per month, reveals the fact that per capita income of most of the families (95.94%) were within the range of Rs. 400 to Rs. less than 800 where as only 4.14% of the families of the woman workers earned above Rs. 800 per capita income per month. It is to be borne in mind that the income of the families are almost the same because the workers irrespective of their sexes get equal pay besides ration of rice/wheat at a nominal price (Rs. 0.54/ kg) and fuel free of cost. At present each worker get Rs 54.35 paise daily as wage which comes to about Rs. 1630/- per month. The workers also get 13.00 Kg (approx.) of rice/wheat per month. The dependent adults are entitled to get 8.80 Kg. (approx.) rice / wheat and the dependent
children get 4.90 Kg. (approx) of rice/wheat in a month. They are also entitled to bonus. Besides the workers also get fuel and housing free of cost.

It is clear that though the wages of the workers have been increased along with the quantum of bonus etc., still their socio-economic conditions have not been improved. This is because of the fact that they have large family and also that their behaviour in respect of spending is not rational. If one visits the tea gardens during payment dates or during the payment of bonus etc., he/she would see as to how the tea workers are behaving and spending their earnings. Perhaps alcoholism is the most serious problem that has affected each and every individual workers including children who are indulged in this line by their parents themselves.

2. Environmental Sanitation

An expert committee of World Health Organization has defined Environmental Sanitation as ‘the control of all those factors in man's physical environment which exercise or may exercise a deleterious effect of his physical development, health and survival.' The interplay of man himself and the environment that surround him determine the health status of an individual, a community, or a nation. The environment means the external conditions affecting the life and development of human
beings. Housing, water, air, soil and food are some of the components with which human beings have direct contact. Again an individual's contact with human beings, animals, insects, parasites, microorganisms and level of nutrition, constitute the biological environment. Social environment comprises of factors and conditions such as cultural values, customs, habits, beliefs, attitudes, economic status, religion and standard of living.

The concept of sanitation covers the total aspects of the environment such as food, air, water, housing in the prevention of diseases and the promotion of health and not as in the past, where 'sanitation' was centered only on the sanitary disposal of human excreta. Even now to many, sanitation still means 'construction of latrines'. But environmental sanitation is a complete process wherein several factors which are harmful to the health are controlled.

In the present study observations have been made on environmental sanitation to which woman workers in selective tea gardens of Dibrugarh District exposed.

Housing:

Housing is a part of the total environment of an individual which provides physical shelter. It is also responsible for the status of the man's health and well-being. Therefore, house should be physically
healthy and safe for the family and the individuals to live in, whereby they can attain complete physical, social and psychological well-being. Good and safe housing play a vital role in the total welfare of the individuals and families in the community. If the houses are poor in construction with poor sanitation and are over-crowded, they will lead to accidents, many diseases whereby the welfare of the community as a whole is affected eventually. In regards to overcrowding, the floor area of the living room should be at least 120 sq. ft. For one person at least 100 sq. ft. of floor space should be allowed. Room should not be overcrowded. It is said that not more than two persons should be allowed to stay in one room, three persons can occupy two rooms, five persons in three rooms. This is an estimated room person ratio in terms of sanitary line. Therefore good housing is essential for good health, security, shelter and comfort; and also for good working conditions.

It is worth mentioning here that the housing facilities provided to the garden workers are governed by the Assam Plantation Labour Act 1951 and its Amendments Act of 1981. These Acts provide that –

(1) Every employer shall provide housing accommodation to its workers as near as possible to the place of work. The houses shall be on high and dry, well-drained land with provision of wholesome drinking water within a reasonable distance. There shall be approach road and path in good condition to the area where the houses are located. There shall be
adequate lighting arrangement in and around the area. Housing scheme and design shall be approved by the Chief Inspector of Plantations.

The employer shall maintain the houses provided to its workers in a fit and safe condition and execute annual and other repairs as may be necessary from time to time. All the houses shall be lime washed at least once a year and doors and windows varnished and painted once in three years.

In the present study it is observed that tea garden workers live in a line i.e. like a village. In the line, the housing types and their distribution are identical in all the tea gardens. The management provides two living rooms and one Varanda room as kitchen; the most of the floors of the rooms were katcha. Each of the room has two small windows. The rooms were not sufficiently big; they are usually of size 10' X 12'. In the present study it has been observed that 57.57% have semi Pucca of houses, where floor is katcha and walls are pucca with tin roof and 12.70% have pucca houses (including floor). But in terms of space, the houses are not up to the mark. Due to scarcity of space some workers (29.73%) have constructed separate katcha rooms for use as kitchen by using locally available materials (table 2.1).

In the present study, it has been observed that though the managements provide housing facilities to the workers, most of the houses in the selected tea gardens do not seem to be very hygienic. There
Rearing of pigs nearby living room

A Semi Pucca house provided to the tea garden workers.
is not enough provision for sufficient light and ventilation (table 2.2). As a result in most cases (69.73%) rooms remain dark even during the daytime and floors are often damp. The construction plan of the houses also seems to contribute towards unhygienic conditions. The kitchen is attached to the living rooms in 76.22% houses and only 23.78% families have separate kitchen built by the workers themselves (table 2.3). Since most of the families (83.6%) use firewood and kerosene (9.19%), the smoke that emitted due to use of wood and kerosene enters the living rooms. The exposure to smoke is likely to affect the health of the workers badly (table 2.4).

Again the surroundings of the houses found to be unhygienic and dirty. About 50% of the families who have domestic animals build their animal sheds either attached to or very close to the dwelling houses (table 2.5). They were also found to rear a good number of other domestic animals and birds like duck, chicken, goats, pigs etc., which were kept inside the living room or verandah (in most cases). All these also contributed towards the dirtiness of the housing compound.

**Sources of drinking water:**

Tube-well is the main source of water in tea gardens of Dibrugarh District. About 30% have personal tube-well supplied by Government and 70% have common tube wells as sources of water for drinking and
washing purposes which are provided by the Tea Garden Authority (table 2.7). Again most of the woman workers (73.78%) used places near to the source of water as washing place (table 2.8).

Besides, the Assam Plantations Labour Act, 1951 & The Plantations Labour Assam Rules 1956 stipulates that every plantation must make available adequate wholesome drinking water at work site at all time during the working hours and water for drinking should be supplied either through taps connected with a public water supply system or from any other source approved by the Chief Inspector of Plantation.

Gupta DN, (NICED, Annual Report 2003-04) mentioned in his study in the rural field area in the district of south 24 parganas, West Bengal that 74.4% families were using tube-wells as the source of drinking water. The present findings were almost similar with the findings of Gupta DN, (NICED, Annual Report 2003-04). However, it has been observed that many of the tube wells have not been provided with pucca platform and drainage system.

Place of Defecation:

The woman workers by place of defecation shows that about 50% of the woman workers defecated in the open field, about 20% used sanitary latrine and a few of them used pit latrine (30.09%) (table: 2.9).
As per the Assam Plantation Labour Rules, 1951, there shall be one latrine for every 50 acres of cultivated area (plantation) and the latrine should be situated conveniently and shall have exclusive access for either sex. Besides the latrines should conform to Public health requirements. However, it has been observed that practically there is no latrine in the tea gardens and wherever latrines are there, those are not cleaned regularly. So, it is not usable as a result of which they have to go to the paddy field or nearby tea bushes for defecation.

Refuse Disposal:

The table 2.10, which shows the method of household refuse disposed reveals the fact that unhygienic disposal of household refuse is more common among the tea workers and about 41% used dumping and 27.02% resorted to indiscriminate throwing as method of refuse disposal. Only 20.99% of the families resorted to composting. The unhygienic disposal of refuse provides a fertile breeding ground to the flies which help in the spread of diseases particularly diarrhoea dysentery etc.

Drainage System:

Again drainage systems in and around the residential clusters are found to be poor. In about 74% of the houses, the drainage system is
absent whereas about 26% have open drainage (table 2.11). As a result sullage water from the households and rain water are usually drained out to the outer periphery of the courtyard where it gets accumulated. Rain water as well as water from the well flows to the main drain which surrounds cluster of houses. But the drains remained choked resulting in water accumulation. The accumulation of water provides a fertile breeding ground to the mosquitoes and various germs that result in the spread of various diseases.

3. Practices of Personal Hygiene

Personal hygiene refers to cleanliness of body and its maintenance by practicing good habits in order to prevent diseases and maintain health. It includes the habit and practices of human being with regard to bathing, washing clothes, trimming of nails, defecation habits and so on.

Personal hygiene is not only concerned with matters pertaining to health of a person but also includes certain personal factors conducive to good health. The principal objective of personal hygiene is to maintain a high standard of health (Dedi – 1980: 214).
The study of hygiene requires the understanding of individual's particular habits, which grow by practice and eventually become part of culture.

Oral Hygiene:

Majority of the woman workers clean their teeth by using various materials. The older people brush their teeth with thin twigs of tea plants. It has been observed that mostly young generation (25.83%) use toothpaste and brush. Majority of them (61.62%) brush their teeth with twigs. Few of them 121 (12.55%) clean their teeth with ash and sand. (table: 3.1). It is observed that only 26.22% brush their teeth with toothpaste. Thus it is seen that majority of them is still using old method of cleaning teeth.

Habits of Defecation:

As already highlighted, the tea workers including the female workers mostly defecate in the open field or behind tea bushes. Although there are provisions of latrine as per the Assam Plantation Labour Act, 1951, the tea workers, both male and female, rarely use such latrines. Most of the women goes to the open field early in the morning for defecation and after defecation they washed with a bottle of water which
is considered to be much less for proper cleanliness and ablution. On
returning home they washes their hands with water and soil. A large
number (53.87%) of woman workers found washing their hands with soil
and water after defecation. As is well known a number of diseases like
Diarrhoea, Dysentery, Typhoid, Paratyphoid, Jaundice, Cholera and other
intestinal diseases like worm infestation spread among the people because
of personal behaviour like contamination of soil due to the open air
defecation and hand washing after defecation. Again it has been observed
during data collection that, young children defecate in the kitchen garden
or courtyard. As is well known defecation in the open field and in pit
latrine contaminate soil and water thereby helps in the spread of gastro-
intestinal diseases.

It can be highlighted that about 29% of the women did not use any
footwear and walk barefooted (table: 3.9). The study also reveals the fact
that although about 71% use footwear, they are not regular user. They
usually use footwear only when they go outside or during festive
occasions. Moreover about 78% of the women workers do not use
footwear during defecation in the open field. So, it can be considered a
serious public health problem and needs to be corrected. As we know bare
foot is mainly responsible for hookworm infestation. Because the eggs of
hookworms comes out with faeces, and deposited on the soil. These eggs
may develop into larvae. These larvae usually find their way back into the
human body through the skin of bare feet. The retention of wet soil or
mud between the toes favours the larvae’s entry into the human body.
A latrine provided by the tea garden management

Bare footed women on the working place
Similar observation made by Dr. R.K. Kar, 1990: 37 regarding open field defecation.

Care of the Skin:

Skin is a delicate organ. It is a protective covering and also plays a vital role in the process of excretion. The sweat glands, which open on the surface of the skin, excrete from the body a lot of waste products in the form of perspiration. Especially after exercise, glands are very active. The sebaceous glands secret an oily substance which acts like a natural coat to the skin. In order to preserve the cleanliness of skin and to keep healthy, regular baths and proper clothing are necessary.

As Cleaning of the skin is very important for the body, bathing is indispensable in the life of the human beings. But the women workers by and large are not particular and conscious about personal hygiene and taking bath is not a regular practice among the woman workers of the tea gardens. It is undertaken one to two days of interval and sometimes the interval is a week or two particularly during the winter months.

However 67.66% of the woman workers found to take regular bath. Generally the women workers take bath in common bathrooms provided by management or near the water source. Though soaps and shampoos are not known to them only 55.32% use soaps whereas 44.68%
take bath only with water. Some of the women take bath before going to their duty. During summer, the woman workers generally take bath after returning from their duty in the evening (table: 3.2).

Cutting of nails:

Majority of the women (74.6%) working in the tea gardens cut their nails at regular intervals where as 25.4% of the women did not cut nails at regular intervals. These women usually cut their nails when they felt that the nails are long enough and hamper in work. Again out of those women who cut nails at regular interval, 615 (74.28%) cut their nails at weekly interval whereas remaining 213 (25.72%) women cut nails twice in a week (table: 3.3). During field visit it was observed that some women were having long nails with clay. These women have to perform dual roles as worker in the tea garden and as housewives. As housewives they have to perform all sorts of household works including preparation of food. But as is known the long, dirty nail may help to spread diseases. But, it seemed, that they were least bothered about that.

A sizable section of the woman workers (40.63%) were not found to be accustomed to hand washing before meals. Even most of these women (597 out of 659) who were found to be accustomed to hand washing before meals, washed their hands with water only and only 62 (9.41%) washed hands with water and soap before meal. The relation
between religious status and hand washing practices before meals which reveals the fact that the practice of washing hands before meal is more incase of the Christian woman workers (78.88%) than Hindu woman workers (53.67%) (table 3.7). This difference is found to be statistically significant which indicate that there is association between religious status of the women worker and practice of hand washing ($Z=5.86$, $p < 0.001$).

Clothing:

Women usually change their dress after taking bath and after returning from their duty in the afternoon. But this is not true in case of woman workers of tea gardens. The study shows that about 30% of the woman workers do not change their clothes regularly. They change clothes when they feel that the clothes are too dirty to wear (table 3.4). However, it has been observed during the study that the Christians seem to be relatively more clean in their dress than the non-Christians. The women working in the tea garden wash their clothes generally on Sundays or on other holidays. Detergent is used for washing clothes. They generally wash their cloths near water sources where they also clean utensils and take bath (table 3.5). It will not be irrelevant to conclude the chapter with the observation made by Basu S. (1971) "The widespread poverty, illiteracy, absence of safe sanitary living conditions have been traced out in several studies as possible contributing factors for dismal health conditions prevailing among these vulnerable population."
4. Belief about diseases & treatment seeking behaviour during sickness:

Beliefs about causation of diseases:

Health behaviour is a kind of social behaviour which affects and gets affected by various socio-cultural parameters. Understanding of a disease is not a medical issue but is largely dependent on the shared knowledge of a particular community. Traditions, social practices and role relationships – all contribute to our dealing with health and illnesses. The sick role behaviour largely depend on how a community expects its sick member to behave. Most of the ethnic communities constituting tea garden population of Assam have their own concepts of health and causes of illness. They take preventive and curative measures according to their own customs.

The tea tribes /casts of Dibrugarh district believe that the diseases are caused due to a variety of reasons. These are displeasure of supernatural power, action of evil power, block magic and evil eyes in case of diseases in children.
The tea tribes of Assam, being the descendants of the tribals of Central India, are the followers of animism. They believe that disease and death are caused by certain spirits or supernatural powers. They often believe in dead spirits who live with living bodies. These beliefs have great influence on their attitude and psychology about ailments. So they have to take steps to counteract the inimical influence of the unseen powers to pacify, appease or satisfy some and fight and punish others like witches (Dainis). These give rise to some holy or sacred incarnations, invocations, recitations, offerings, sacrifices, amulets etc., which are considered effective in their faith.

It also leads to the concept of a number of Gods or deities who are supposed to be associated with the cause of disease. Thus they have the Goddesses of epidemic diseases like pox, cholera, measles etc. For example, Kharias, Mundas, Oraons and Santals attributed various specific diseases such as Pneumonic, Goitre, Paralysis, Gout, Leprosy and Epilepsy etc. to Bongas.

Also in their faith there are some evil spirits on powers, like Bhuts, Deinis etc. These spirits are unseen and travel through air particularly through cold air and most of the tea tribes believe that accidental inhalation of this cold air can make a person very sick. They also believe that complicated diseases and ailments such as typhoid, pneumonic, leucoderma, rheumatism etc. originate from the spell or cause of evil spirits or work of magical deeds of sorcerers while deaths
particularly due to malaria are the deeds of witches (witchcraft). They often kill those witchcrafts who are supposed to be responsible for deaths due to malaria and some other diseases.

They believe that the evil spirits generally reside in unholy, fearsome places like cremation or burial grounds or localities like deep forests, deep pools etc. Provocation of these spirits by some way can cause illness. Injuries by fall, arrows, axes, cuts and fractures in forests are often regarded as the work of ghosts.

Similar observation was made by Dr. Kar, R.K. (1990) on morbidity vis a vis Health Behaviour among Tea Labourer in Assam. He also observed the tea tribes believe that ancestral spirits for showing negligence or disrespect, interference of some supernatural power, aggressive intention of Jati mates or neighbours with magical power cause diseases.

Again in case of diseases in children, most of the woman workers of tea gardens attribute these diseases to evil eye. The diseases caused by evil eyes in children are abdominal distention, vomiting with loose motion etc. The study shows that most of the woman workers (78.65%) believed that childhood diseases are mostly caused by evil eyes (table 4.5). They believed that there is no prevention of diseases caused by evil eye and in such cases, they generally seek treatment from Ojahs or Quacks or home
remedy like burning of chilies and mustard seeds or Tuesday and Saturday. Besides, they bind hair on the wrist of ailing children.

In the present study, the causes of diseases as viewed by the women worker are described below.

Out of the 1110 woman workers, 26.13% of them attributed the causation of disease to germs, 18.38% to supernatural power, 15.95% to evil power, 11.35% to black magic whereas 28.20% had no idea about causation of disease (table 4.1).

However many of them now begin to believe that diarrhoea and dysentery are caused due to bad personal hygiene. Many of them believe that stomachache is caused due to bad food and liquor consumption; whereas general weakness is attributed to inadequate food intake and loss of blood. Again smoking of bidis, ganza, inadequate food and excessive labour are thought to be the cause of TB whereas skin infection is attributed to impurity of blood.

Diseases among the tea workers:

The tea garden people irrespective of sexes have been found to suffer from a good number of diseases or ailments. Kar K. K. and Barma
T. found tea workers suffered from at least 26 diseases frequently. The more common diseases were cold and fever, gastroenteritis, anaemia, diarrhoea, dysentery, skin diseases, eye diseases etc.

In the present study maximum number (expressed in percentage) of women found to suffer from gastro enteritis (13.96%) during the last six months preceding the study. (table 4.2). Kar R.K. and Barua T. also observed higher incidence of these diseases in their studies. The poor environmental sanitation coupled with poor living style (personal hygiene being poor) are probably contributing factors for higher incidence and prevalence of diseases in the tea community.

Another disease of high incidence and prevalence among the tea garden women workers is hypertension. In the present study 9.1% of the women workers had hypertension and giddiness. Gilbert et. al. (1994), Hazarika et. al. (2000 and 2002) also observed higher prevalence of hypertension among the tea garden population. As is well known the tea workers, both male and female, are habituated to alcoholic drinks and tobacco both smoked and nonsmoked. Although use of alcohol and smoked tobacco is relatively lower among the females than males, as reported by Hazarika et. al. (2000), Narayan et. al (1996) and Rani et at. (2003), nevertheless a sizable section of the women worker is habituated to alcohol and tobacco as revealed in the present study (table 5.9 & table 5.12) Hazarika et. al. found association of unsmoked tobacco consumption in the form of ‘Khaini’ with hypertension in women.
Besides alcohol and tobacco, habit of extra intake of salt with food is more common among the tea garden workers, both male and female, extra intake of salt is considered as risk factor for hypertension which may increase the risk of hypertension significantly. As observed by Hazarika et. al., social status, underlying environmental and hereditary factors may also predispose to hypertension in women in tea garden.

Prevalence and incidence of tuberculosis and chest pain was also found high and in the present study 9.1% of the women worker found to suffer from tuberculosis and chest pain during the last six months preceding the study. It was also observed during the field study that sixty-five numbers of woman workers who was working in the gardens, was under DOT regime. Many women workers complained of chest pain. Though they were yet to be diagnosed as tuberculosis patient.

Anaemia is another frequently occurring ailment among the women. Anaemia in women is mainly due to repeated pregnancy and non-acceptance of modern medical care during that period. This is, in fact, one of the major problems that contributes to maternal morbidity and mortality. In case of children, insufficiency of nutrition resulting from inadequate diet both in quantity and quality is responsible for anaemia and malnutrition. In the present study, 8.38% of the women suffered from anaemia.
In the present study the women workers were also found to suffer from various diseases/ailments like body ache (6.94%) gastritis (6.4%), skin disease (2.97%) malaria (2.52%) etc. Besides a considerable number of women workers also suffered from influenza (9.73%) and Gynaecological disorder (8.56%).

Besides, the hospital records of diseases of the selected gardens were also collected (table 4.2) to supplement the data obtained through interviewing the woman workers. Informations gathered through discussion with the health personals also reveal the fact that workers in general are reluctant to seek modern treatment to treat their ailments. They give more importance to their belief about the diseases and treat accordingly.

The present study shows that though the hospital facilities are available in the garden, a sizable number (420 i.e. 37.84%) of the working women did not seek treatment at Garden Hospital due to a variety of reasons. Out of these women, 48.10% thought medicines given in the hospital were substandard where as 13.10% of them did not go to the garden hospital as behaviours of the medical staff were not satisfactory. Besides, 21.9% of the workers attributed absence of doctors as the reason for not seeking treatment at garden hospital (table 4.4).

The hospital records of the selected records (table: 4.6) also reveal that gastroenteritis cases were maximum accounting for 26.2% of the total
cases in 2003, 25.38% in 2004 and 27.46% of the total cases recorded in the hospitals of the selected gardens. In 2005, the percentage of the gastroenteritis cases had gone up because of the occurrence of epidemic of gastroenteritis in the tea gardens of Dibrugarh districts.

Another disease of high prevalence as revealed from the hospital records was R.T.I. (fever, cough etc.), which accounted for more than 11% of the total cases in all the three years under study. The hospital records also indicate that a higher percentage of the tea workers also suffer from various diseases like hypertension (about 70%) and skin diseases (about 71%). Other diseases of higher incidence were Gynaecological disorders, anaemia, malaria, gastritis etc.

The data obtained through interviewing the woman workers and also from hospital records reveal that most of the diseases in the tea garden result from bad environmental sanitation and various practices associated with the life style of the tea garden people. Therefore, improvement in environmental sanitation and personal hygiene could definitely reduce the incidence and prevalence of most of these diseases.

Treatment seeking behaviour:

It has been observed by the researcher that majority of the women working in the tea gardens treat ailments in three phases. In the first
phase, that is immediately after occurrence of a disease or ailment, they try their own home remedy. During data collection, the researcher saw a 32-year-old lady of Tamulbari TE treating her 12-year son who had suffered from sprain with turmeric (haldi) and lime. The turmeric and lime heated together and applied to the effected part. The child ultimately gets cured.

If the ailments persisted, in the second phase, they call Ojahs for diagnosis of the ailments. Diagnosis of the cause of illness by the Ojahs always involve some sort of magical performances or rituals and not so much the examination of the patients. If the sickness is prolonged or severe, the services of the mystic priests are sought. The priest with the help of concerned spirit determines whether the patient is under the spell of evil spirit or he has displeased some Gods and became the victim of curse of Gods. The mystic priests can determine the cause of evil spirits or witchcrafts.

They (The Ojahs / mystic priests) perform pujas in order to cure the sick person or to make the ailing person free from the influence of evil spirit. For this purpose, the courtyard of the family is mopped up with cow dung and water. A Ghot (earthen pot) with full of water and a coconut at the top spotted with sindoor (vermilion) is placed at a corner of the courtyard over a banana leaf. The Ojah/mystic priest perform pujas and recite mantras. Then hens/goats/pigs are sacrificed in the name of the concerned deity/deities. Observation of symptoms and prescription of
herbal medicine are also the methods of traditional treatment. When the
treatments by Ojahs/mystic priests fail, they go for modern
treatment as alternative way of treatment on the advice of the Ojahs
/mystic priests.

The tea workers also perform some rituals as preventive measures
against a number of diseases at regular intervals. For example, the Savars
and many other groups perform ‘Gram Puja’ to propitiate the village God
to protect the villagers from any misfortunes. Similarly they perform
many other pujas and sacrifices and offerings to their deities, spirits etc to
protect the family and the community from unforeseen dangers and
hazards.

It has been observed that about 62% of the women workers,
visited garden hospital (table 4.3), but some of them visited garden
hospital not for seeking treatment of their diseases but to get sick leave
from their employer after registration at the hospital. Sometimes (e.g. in
case of cough, fever and dysentery) modern medical attention is sought
first and is followed by traditional treatment and the two go side by side.

In general, most of the women and their family members did not
take medicines. Because during the course of treatment, they are often
advised against taking haria, tobacco, betel-nut and other intoxicants.
Again some of them had the notion that the medicines provided from the
garden hospitals are of inferior quality. Hospital staff on the other hand
often complained that some of the workers throw out the medicines even in hospital campus. Again some of the women commented that the medicines are tasteless and are difficult to administer. Again according to some of them medicine alone can not cure disease, but good foods like meat, fish, eggs are necessary for recovery from diseases. Fear of side effects is also one of the reasons for not taking medicines.

5. Food & Intoxication Habits:

Food Habits:

Health to a great extent depends on food and food habits besides economic conditions (i.e. purchasing power), safe drinking water, hygienic living condition, literacy, immunity against various diseases etc. Food is always a touchy object for every one. Even a primitive man might have discovered from his experience of eating, the direct relation of food with well-being.

Food habits in different areas have been determined by local availability of various items are, however, guided by cultural values and practices. Dietary patterns necessary to maintain reasonably good health have been evolved perhaps after a good deal of trial and error. Removal of hunger is normally the main criterion for a satisfactory food intake, but
the present day knowledge of food and nutrition does not conform to the belief that satisfaction of hunger is a safe guide for the selection of proper foods. Thus for maintaining a healthy life, diets should be planned in such a way that nutritional needs are fully met.

In the present study attempt was made to have knowledge about the food and intoxication habits of the women workers of the tea gardens which have profound influence on their health.

Rice is the staple food of the tea workers irrespective of sexes. Besides, roti (bread) made of atta is taken by the workers. As already pointed out the workers get ration of rice and atta at a nominal price (Rs. 0.54/ Kg). A large variety of vegetables are included in their diet. Sometimes dal (pulse) is also added to their food. In the present study it has been observed that the woman workers used to take a very simple meal and their meals mainly consisted of simply rice and vegetable (61.26%) where as only about 20% of the women were found to take dal along with rice and vegetable in their meals (table 5.1). They seem to give more importance to the quantity of food than its quality. The table 5.2 shows the frequency of eating non-vegetarian food which shows that only 10.63% of the women were found to take non-vegetarian foods like fish, egg, meat etc. almost daily where as 49.23% of the women workers took non vegetarian food only once or twice in a fortnight. They usually eat pork or mutton or chicken when a pig or goat is killed in a line and sold at a low price or on the payday when they spend their earnings lavishly.
The workers of the tea gardens irrespective of sexes take principal meals twice or thrice a day, one meal before going to their duty and the other after returning from their duty. Roti and black tea with salt are generally taken in the morning as breakfast. It is interesting to note that some of the women (18.2 %) take their rice with salt and chutney only. Children generally take their meals several times during the day. But in the present study about 49% of the women workers were found to take meal thrice a day whereas 4.23% used to take meal only once (table 5.3).

INTOXICATION HABITS:

Locally prepared liquor from rice or molasses called Haria or Laopani forms a very popular and important drink among the tea gardens workers irrespective of their sexes or ages. Haria also is a part and parcel of their religious and social functions and is consumed by most of the women along with their husbands and other members of the families. In the present study it has been found that quite a large percentage of the women (about 42%) were habituated to consumption of liquor whereas about 58% did not consume liquor (table 5.9). The women who were found to consume liquor mostly consume only occasionally particularly during festive occasions. They did not consider liquor consumption to be harmful. Rather most of them considered it to be necessary to remove exhaustion due to excessive labour and body ache. On the other hand,
those who did not consume liquor considered consumption of liquor to be harmful. The study also reveals that about 69% of the husbands of the woman workers used to liquor (haria) consumption and most of the women complained of assault, both physical and mental by their drunken husbands. But a small percentage of women (19.84%) did not complain of assault by their drunken husbands (table 5.10 & 5.11).

Again black tea with salt another beverage universally taken by the tea workers of both sexes. Black tea with roti is usually taken in the morning as breakfast items.

Smoking of bidis, chewing of tobacco or khaini are common practices among the tea workers irrespective of their sexes. A few of them were found to be addicted to tobacco smoking or chewing. They were said to have taken tobacco even during their pregnancy.

Excessive and dual use of tobacco and alcohol by the tea garden population warrant the urgent need to create awareness about the harmful effect of alcohol and tobacco use.
Working women taking their lunch at working place

An woman offering Haria to a group (liquor made locally from rice)
6. Maternal Health Practices including family planning:

Practices relating to pregnancy and childbirth

Mothers and children are the vulnerable groups in our population. In India the women in the child bearing age (15 to 44 years and children under 15 years of age constitute a major segment of the total population. Therefore, study of maternal and child health and practices are indispensable. This is because of the fact that unscientific practices influenced by age-old beliefs and taboos not only harm the health of the mothers but also affect the health of children.

This sub chapter will be devoted to a discussion of maternal health and practices related to it. For this purpose a number of variables along with the practices associated to these variables are taken up for discussion.

The table 6.1 shows the age at puberty. It reveals the fact the about 60% of the woman workers attained puberty between 12 to 13 years and about 20% attained puberty below the age of 12. Thus most of the woman workers (about 80%) attained puberty by the age of 13 years. The study reveals that 50.56% of the woman workers took rest during their menstruation where as 3.3% did not take rest during menstruation (table 6.2). It is worth mentioning here that women of the tea tribes do not
consider menstruation as an impure act in the strict sense of the term. A menstruating woman does her usual household works besides working in the gardens in plucking of leaves. They, however, refrained from offering pujas or propitiation to deities. However those who take rest, they only refrained themselves from household works particularly preparation of food. They, however, were found to work in the garden during menstruation. The women of the tea tribes are not aware about the need for rest maintaining of cleanliness during menstruation.

**Age at marriage:**

In the traditional setting the people usually preferred early marriage. It is a long established custom in India. The Child Marriage Restrained Act (C.M.R.A.) of 1978 raises the legal age at marriage from 15 to 18 years for girls and from 18 to 21 years for boys. In the present study the most preferred age at marriage ranged from 16 to 21 years for girls (table 6.3). It also shows that quite a sizable number of woman workers (20.09%) were married below 16 years of age and 35.32% married within 16 to 17 years of age. Thus more than half of the woman workers (55.41%) were married below the age of 18 years and about 78.29% were married by 20 years of age. In the tea gardens, it has been observed that most of the girls and boys elope under aged. Girls usually elope after puberty. Societies also agree to this type of marriage as traditional customs and, therefore, there is no restriction for early marriages. Thus the legal age of 18 years for girls and 21 for boys for
marriage are not honoured in most cases in the tea gardens. The tea tribes are found to give more weightage to their customs and traditions rather than legal provisions in regard to marriage age. This explains why early marriage is more among tea tribes. In the present study mean age at marriage is calculated as 18.17 years whereas several studies indicate that in many states, the mean age at marriage for girls has already moved up to 21.1 years in 2003, and many others are very close to this.

Early marriage is also responsible for high fertility among the tea tribes. When marriage takes place at an early age the couples not only enters reproductive life at the most fertile period but also gets greater reproductive span. This results in higher fertility. Thus this is one of the reasons of high fertility among the tea tribes. It has been estimated by demographers that if marriage age is raised to 20 – 21 years for girls, then 20% of the total birth could be avoided annually. This is because fertility is quite high during the early part of the reproductive period particularly 17 to 20 years and there after fertility goes down.

**Age at first pregnancy:**

It is very much natural that one will be conceived after marriage. The tea tribes community people believe that a woman conceives only by the blessings of God. In the present study, it is observed that about half of the women (50%) conceived for the first time before they attained 18
years of age and 36.13% conceived within the age of 18 to 20 years (Table: 6.4).

It is obvious that early marriage would result in early pregnancy. Though marriage age is raised to 18 years, from health point of view pregnancy is preferred after 20 years. This is because a girl’s growth continues up to 20 years of age. Therefore, early pregnancy resulting from early marriage could lead to many evil consequences like premature and low birth weight baby, increased infant mortality, abortions, still births, increased sickness of mother and child etc.

Antenatal Care:

The primary aim of antenatal care is to achieve a healthy mother and a healthy baby at the end of pregnancy. Though the tea garden people believe that a woman conceives by the blessings of God, they consider pregnancy to be a natural phenomenon. Hence they do not seem to consider it necessary to have regular medical check up and to take medicine like iron folic acid tabs during pregnancy. Only a very few educated and the baptized families go for the same to the hospital provided by the management.

The present study has revealed a low antenatal care coverage of the mothers and only 49.55% of the women visited Hospital for antenatal check up during their last pregnancy (table 6.5). Murthy et.al. (1975) in a
survey of utilization of antenatal care services in a primary health center observed that only 18.7% pregnant women were registered by the P.H.C. staff while Kaur et. al. (1978) from a study in a slum area in Varanasi observed that 72.2% of women had antenatal check-ups, where as Chandrasekhar S. et. al. (1998) in his study in Kanara district of Karnataka reported a higher antenatal coverage among the mother (98.66%). Thus it was observed that there was a wide range of variation in utilization of antenatal case services as observed by the various study groups in different periods of time in various parts of the country.

As recommended under the Reproductive and Child Health (RCH) programme, a minimum of 3 antenatal visits are necessary during the entire period of pregnancy. But the present study shows that only 18.55% of the mothers who registered themselves for ANC had 3 or more number of antenatal check ups.

Lal Sundar et. al. (1996 – 97) in a study in Rohtak found that 28% mothers had 3 or more antenatal visits, similarly NFHS –2, Assam (1998 – 99), reported that 28.4% of mothers had 3 or more antenatal visit, whereas Singha R.N. et. al. (1999), in a study in West Bengal found 56.2% women had 3 or more antenatal check-ups. Similarly Kakoty et. al. (2000) in a study in slums of Guwahati, Assam, reported that 62.2 % of mothers had 3 or more antenatal check-up.
It was also observed in the present study that 35.82% women worker has one antenatal visit while 45.64% had two antenatal visits. The NFHS-2, Assam (1988 –99) reported that 8.2% women had one antenatal visit, whereas 21.6% had two antenatal visits. Kakoty (2000) reported that 15% mothers had one antenatal visit and 22.7% had two antenatal visits. The present study almost similar with the findings with the finding of NFHS –2, Assam (1998 –99).

The study further reveals that about 54% of woman workers received adequate dose of T.T. during their last pregnancy. Some of them might have taken T.T. outside the garden hospital as only about 50% of woman workers visited hospital for antenatal check up.

NFHS-2 (1998 – 99), Assam and NFHS-2 (1998 – 99), India reported that the mothers who received 2 doses of tetanus toxoid were 52% and 65% respectively. Sinha R.N. et. al. (1999) reported from a study in West Bengal that the percentage of mothers fully immunized were 88.3% whereas the percentage of mothers not immunized were 5.6%. Kakoty et. al. (2000), in a study in slums of Guwahati, Assam reported that out of 119 mothers 98.3% received TT injections during their antenatal period. Bang A.T. et. al. (2001) in a study in rural neonates in Gadchiroli, Maharastra recorded 79% mothers had received tetanus toxoid. All the above studies had demonstrated different levels of coverage with tetanus toxoid immunization among the different study
groups. However the present findings corroborated with the findings of Sinha R.N. et al. (1999).

Diet during pregnancy:

Modification of dietary pattern is essential during pregnancy, as nutrition is needed for mother and foetus. Therefore, diet during pregnancy should be increased than regular requirements. Various studies show that women with repeated pregnancy may have iron deficiency.

It is a well-known belief among them that a healthy diet during pregnancy may affect the mother, as she may deliver a large baby which may be one of the causes of difficult delivery. Therefore, most of the pregnant women in the tea gardens take less amount of diet especially in the last trimester. The fact that the tribal women including women of tea tribes are not in favour of giving increased food during pregnancy is revealed in the study. In the present study it is observed that about 61% women did not favour increased food during pregnancy whereas 38.74% women favoured increased food intake (table 5.4). The women (61.26%) who did not favour intake of food believed that doing so might increase their body weight and would therefore, hamper their working capacity besides difficulty in labour. Even the woman workers who were in favour of increased food intake during pregnancy could not specify the amount of food or items of food to be included in the diet of a pregnant women.
They believed that an extra meal is sufficient during pregnancy (table 5.5).

The present study, however, reveals the fact that more Christian women favoured increased food intake during pregnancy. Among the Christian women 64.94% were found to favour increased food intake whereas only about 31% of the Hindu woman workers were found to favour increased food intake during pregnancy (table 5.6). This difference is found to be statistically significant which indicate that there is association between religious status of the woman workers and increased food intake during pregnancy ($Z = 9.94, p<0.001$).

But like other tribal people the tea tribes of Assam have their own beliefs and taboos concerning the diet during pregnancy, just after childbirth and also during lactation. As already pointed out in subchapter 5 most of the pregnant women of the tea garden people take less amount of diet especially in the last trimester. Besides they also avoid certain food items, which they consider ‘hot’ or ‘cold’. They avoid pumpkin as it may cause puerperal sepsis and sour items as these cause excessive mucous secretions. An expectant mother is forbidden to take pork and indulge in sexual cohabitation. It is believed that if she takes pork during the period, the newborn baby may have deformities in the body. In case, she sleeps with her husband during the period, there may be eczema on the head of the baby. For such eczema, the local medicine man himself prepares herbal medicine for external application. The study reveals that 73.51% of the women workers in the selected tea gardens believed some foods, like egg, duck meat, pork, papaya, borhali fish, jack fruits, pumpkin etc which
they consider as 'hot' food, should be avoided during pregnancy (table 5.8).

Regarding childbirth practices, majority of the women apply oil and massage the abdomen during labour. A large numbers of the women (traditional Dai) encourage the expectant women to deliver in the squatting position.

**Place of Delivery:**

Generally the delivery of a baby takes place at home, being attended by women only. No male member is allowed to be present at the delivery place. The expectant mother is helped in the delivery by experienced dai or usually mother-in-law or a neighbour. The medical staffs, as a convention never attend a patient in the labour quarter. The present study reveals that more than 76% of the deliveries take place in home and only about 19% deliveries at garden hospital (table 6.8). It seems, hospitalization of an expectant mother is, in most cases, the last resort i.e. mainly on emergency. Further, in the present study it has been observed that about 85% of the home deliveries were conducted by the untrained dais where as only about 5.4% deliveries were conducted by trained dais (table 6.9).

NFHS-2 India (1998-99), revealed that 42.3% deliveries were attended by trained health personnel. However Kapoor R.K. et. al. (1993),
in a study in Lucknow found 55% deliveries were conducted by trained personnel in comparison to the other studies. However, present study revealed that a comparatively lower proportion of deliveries were conducted by trained health personnel.

Lal Sunder et. al. (1996-97) in his study in Rohtak observed that the percentage of Institutional deliveries was 14.2%. NFHS-2 (1998 –99), Assam reported that only 18% deliveries were institutional while NFHS – 2 (1998-99), India reported that the percentage of Institutional deliveries was 34%. The present study is almost similar with the study conducted by Lal Sunder et. al. (1996-97).

Again there is specific practice for the cord cutting. Some of the tea tribes cut the umbilical cord over a coin of copper with a knife. They bind the cord with clean thread then apply a layer of turmeric paste. It was also observed that the most commonly used material to apply in the umbilical stump was goat-dung while some of them applied ash. Kaur et. al. (1978) in her study in the slum areas of Varanasi demonstrated that it was a common practice among the mothers of the newborns to apply ash to the umbilical cord, for the quick drying up of the cord. When the cord falls automatically, they bind it with a piece of cloth. When the newborn falls sick, umbilical cord is dripped in water and fed the water to newborn with the belief that baby will be cured. The placenta is usually buried by tribal communities while other believes that placenta is to be disposed of by some specific kin members within the household compound. Newborn
babies are massaged with neem oil to protect them from skin infections in the dry climate.

The present study reveals that a few woman workers visited hospital after delivery for post natal check up and about 72% of the women did not visit hospital for post natal check up (table 6.10). Whenever the woman workers visited hospital, they visited to meet emergency and complications. Usually they go to the traditional doctors that is Ojah or resort to home remedy.

After delivery most of the tea tribes women take very less amount of diet they need more nutrient than a normal women. The diet consists of rice and garlic with little salts and black pepper. During this period black gram dal, garlic and turmeric is given and it is belief that turmeric and garlic act as analgesic as well as tonic during lactation. They also believe that black gram dal increases the secretion of milk.

However it has been observed that, in recent years hospital delivery has gradually increased. This may be due to the ASHA (Accredited Social Health Activities) from their own community as well as publicity of remuneration under J.S.Y. (Janani Suraksha Yojana). The Janani Suraksha Yojana is a national maternity benefit scheme. It was launched on 12th April, 2005. The objectives of the scheme are reducing maternal mortality and infant mortality through encouraging delivery at health institutions, and focusing at institutional care among families living
below poverty line. The National Population Policy 2000 had laid stress to achieve 80% Institutional deliveries by the year 2010. Under National Rural Health Mission, it integrates the benefit of cash assistance with institutional care during antenatal, delivery and immediate postpartum period. This benefit will be given to all women, both rural and urban, belonging to below poverty line household and aged 19 years and above and up to first two live births.

**Family Planning Practices:**

As is well known rapidly increasing population is a cause for concern to all which is the result of rapidly falling death rate and relatively stagnant birth rate. So in order to reduce the gap between births and deaths, the Govt. of India adopted small family norm and since 1980, the Govt. is advocating 2-child norm to stabilize our population at a rate consistent with our national goal of attaining Net Reproduction Rate (NRR) =1 by 2010 AD. The NRR means that only one daughter should replace a mother in the long run as it is only through females population increases. Since male female ratio at birth is almost equal (according to demographer male female ratio at birth is 105: 100) population will stabilize itself, if we attain NRR =1. In other words, our population will stabilize if on the average we have two children per family. Besides, population stabilization, the family welfare programs seek to achieve welfare of the families on the one hand and welfare of mother and child on the other.
The family planning programme is also introduced in the tea gardens. In the tea gardens there exists a scheme, where in a woman is paid Rs.700 if she avails of the sterilization scheme after two children, Rs. 500 if done after 3 children and Rs.200 after more than 3 children. This scheme is followed in the gardens under ABITA (Assam Branch Indian Tea Association).

It is observed that the family size of the woman workers comprises of more than 5 children. Though about 67% of them were found to be aware of family planning services, their concept of family norm is somewhat different (table 6.11). They want minimum 4 children and then only they would go for the permanent measures of family planning. During data collection this researcher had a conversation with a termed pregnant lady aged 24 years from the Muttuk Tea Estate. When advised for permanent family planning measure after delivery, she refused. She wanted one more children as she had two children then. This is found out to be view of the common women of tea tribes including woman workers.
7. Infant and Child Health Practices:

Infant & Child Rearing:

In India infants (<1 year) constitute 1.59% of the total population while children between 1 to 4 years of age, generally called pre-school children or toddlers, represent 12% of the general population. A large majority of these population live in rural and tribal areas and in urban slums.

Infant feeding practices are crucial for optimal growth and development during infancy. Under-nutrition is most widespread among the infants of the garden population affecting the health during their childhood. Scarcity of suitable foods, lack of purchasing power of the family as well as traditional beliefs and taboos about what the baby should eat, and what not often lead to an ill-balanced diet resulting in under-nutrition and malnutrition. Malnutrition and under-nutrition makes the child and the infants more susceptible to infection; recovery is slower and mortality is higher. Undernourished children do not grow to their full potential of physical and mental abilities. Malnutrition in infancy and childhood also leads to shunted growth.

Hence continuous vigilance over infant feeding practices in the community is necessary for timely intervention to ensure optimal growth.
and development. In the present study an attempt has been made to evaluate infant feeding practices and also immunization status of the infants and young children of the tea gardens.

Various studies show that the tribal women offer various prelactal feeds to the newborns, which generally consist of honey, diluted animal milk, sugar candy or even a drop of Haria. The present study (table 7.6) reveals that about 41% of the women used animal milk (cow or goat), about 31% used honey and about 16% used “Janam Ghutti” (a local preparation) to the babies as prelactal feed.

Katiyar G.P. et.al. (1981) in a study of feeding practices prevalent in three areas, urban, rural and slum areas of Varanasi district reported that milk was the most commonly used pre-lactal feed that was given to the newborn after birth. Diluted cow’s milk in the urban group (34.06%) and goat’s milk in the other two groups, rural (46.12%) and slums (43.45%) were commonly used. In urban slum, 19.72% newborns were given honey mixed with water while glucose water was given to 7.75% of the newborns as prelactal feed. Bhargava S.K. et. al. (1990) in an ICMR study, examined the early newborn care practices in three rural and three urban slums communities observed that, 77.6% of the newborn in the urban areas were given prelactal feeds whereas almost 97.7% of the newborns in the rural areas were given prelactal feeds as the baby's first feed. Baruah (1997) reported 10.3% neonates were given prelactal feeds. Honey was the most commonly used prelactal feed whereas Kakoty
(2000) et. al. reported 72.15% of the newborns were given prelactal feeds, of which sugar water was the most commonly used feed.

FEEDING OF COLOSTRUM:

Generally the women of the tea gardens do not feed colostrum to their babies. They believe that the baby must not be given this milk as it is gray coloured and thick in nature and therefore would upset the stomach of the new born. They believe that menstrual blood of the mother and faeces of the baby make the milk thick and gray and therefore dirty. Hence they squeeze out the first milk.

In the present study it has been observed that most of the woman workers (80.81%) did not favour feeding of colostrum to the newborn. Whereas 19.19% were in favour of feeding colostrum though most of them were unaware of its usefulness (table 7.1). Colostrum, which contains antibodies, acts as immunization against diseases to the newborns. Similar study conducted by Katiyar G.P. et. al. (1981) at Varanashi District, observed that colostrum was discarded in over 90% of newborns in both the urban slums and in the urban areas, while in 63.26% of the newborns in the rural areas colostrum was discarded as the first feed. NFHS –2, Assam (1998 –99) reported that 58% of the mothers discarded the first part of colostrum.
The present study also reveals the fact that most of the woman workers, irrespective of literacy status, were not in favour of feeding colostrum to their babies. However, 71.43% of the women who pass HSLC or college educated favoured colostrum feeding to the new borns. But as the number in this category is very small so definite conclusion can be made about the association between colostrum feeding and literacy status (table 7.2).

EXCLUSIVE BREAST FEEDING:

Breast feeding is the most ideal and safe food for the babies up to 6 months. Besides providing nutrition, breast milk contains antibodies and act as immunizing agent and protect the infant against diseases. Adequate supply of human breast milk virtually satisfy all the nutritional needs of an infant at least for the first six months of life. It is observed through studies that an average mother, even if her nutrition is inadequate, has the ability to feed breast milk to her baby over a prolonged period. In the present study only 12.70% of the woman workers were of the view that only breast milk is sufficient for a new born at least for six months of life. But most of the women (70.72%) felt that only breast milk is not sufficient to the new borns up to six months of life (table 7.3). This view that breast milk is not sufficient up to six months of babies life is due to their ignorance about the nutritive value of breast milk and also its usefulness in protecting the new born against various diseases.
In general, however, most of the woman workers were found gave only breast milk to their babies which varied from 3 months to 7 months or above. The present study shows that only 19.37% of their last babies received exclusive breast milk up to 6 months is only 9.10% which is in sharp constrast to the findings of Medhi et. al. Medhi et. al. found 69.35% exclusive breast feeding up to 6 months in a study in the gardens of Assam indicating a higher exclusive breast feeding rate. However 8.02% of the last babies received only breast milk for more than 6 months. It is worth mentioning here that exclusive breast-feeding implies only breast milk and nothing else not even water or prelactal feed. But the woman workers are not aware of this fact and often found to feed prelactal feed like cow milk, sugar candy, water to their babies during period of exclusive breast feeding.

The table 7.6, which shows the age of the last child at the time of introduction of semi solids (complementary feeding), reveals that most of the babies (last one) received semi solids by 5 months of life (70.29%). Introduction of complementary feeding is usually delayed by the tea garden people which often results in under-nutrition and malnutrition among infants in later part and children. In the present study in 8.02% case, complementary feeding was found delayed (table 7.6). While in data collection the researcher observed higher prevalence of malnutrition and under nutrition among infants (6 - 12 months) and young children. This is probably related to prolong breast feeding unaccompanied by introduction of semi solids. Because breast milk is not sufficient to satisfy the
nutritional needs of infants to sustain optimal growth beyond 5 – 6 months. Moreover quality and quality of supplementary foods are generally not sufficient for promoting normal growth in India. Similar may be the case in tea gardens of Assam. In particular tea garden people are not aware of nutritive value of their foods, they are more concerned about quality of foods which often lead to malnutrition particularly in children and women.

**COMPLEMENTARY FEEDING:**

The table 7.7, which shows views about continuation of breast feeding along with complementary feeding, reveals that about 56% favoured breast feeding up to the next children where as about 15% favoured breast feeding up to one year along with complementary feeding. But a sizeable percentage of women had no idea up to which breast milk should be given along with additional / complementary feeding. The semi solids given to the infants consists of soft rice, biscuits, suji, commercial foods like cerealac etc.

In the tea garden, frequency of breast feeding was found to be satisfactory. It is perhaps possible because of the fact that during working hours, many infants were found to keep in make shift crèche near the work site. Further increased frequency of breast feeding even in home is facilitated by the prevalence of the practice of wet nursing. The researcher
while in data collected had the privilege of observing the practice of the wet nursing.

**IMMUNIZATION:**

Immunization of the child is not very popular among the people of the tea tribes. Majority of them do not vaccinate their infants. This is largely due to lack of awareness among them. It has been observed during data collection that, plantation authorities also do not take adequate care to provide them vaccination facilities. In the present study 38.38% of the infants (last born) of the woman workers received full doses of vaccination that is three doses of DPT and Polio, BCG and Measles. But about 62% did not vaccinate their children for fear of complications (31.58%) whereas 41.67% were not vaccinated due to the sickness of their children (table 7.9).

The table 7.10 which shows the persons taking care of the babies during the working hours of the mother, reveals that 42.53% of the infant and children (1 – 4 years) were looked after by the mother-in-laws whereas 36.75% were looked after by the elder sons/daughters. The study further reveals that only a very few mother kept their infants and children in crèches (11.3%).
The table 7.11, which shows school going status of the children of the woman workers, reveals that about 54% of the children did not go to school. Most of these school children were either school drop out or never attended school. The situation is worse in case of females. The study shows that 61.32% of the girls did not go to school (table 7.11). The reasons for not going to school were cited as engagement of children in household works or to look after their younger brothers and sisters (table 7.12).
Infant resting on a cradle

An elder sister looking after her brothers and sisters