REVIEW OF LITERATURE

Nutrition is one of the most important factors affecting human health and working capacity. It is one of the prime important in the attainment of normal growth and development in the maintenance of health through out life. It is also important for the promotion of health and prevention of diseases. Besides this nutrition also plays an important role in determining the morbidity and mortality patterns. Moreover food is the chief essential source of essential nutrients, which the body needs for its well being. As a vital component, a balanced diet is indispensable for the survival and health of individuals. Therefore, health and nutrition are interrelated, as balanced nutritional food is indispensable for the health of an individual during infancy, childhood and adolescence, the above requirement can be carried out only through the awareness among women regarding health and nutrition, for this the literature related to the present investigation was reviewed and has been presented under the following subheads.

2.1. Studies Related to Socio-Economic and Demographic Status of Tribal Women

2.2. Studies on nutritional status

2.3. Studies on Health status

2.4. Studies on Reproductive Health status

2.4.1. Studies on Menstrual aspects

2.4.2. Studies on Pregnancy related risk factors

2.4.3. Studies on STDs among young married women

2.4.4. Studies on Reproductive Tract Infections

2.5. Studies on contraception and family planning

2.6. Studies on Nutrition Education

2.7. Studies on Indigenous Health Practices.
2.1. **STUDIES RELATED TO SOCIO-ECONOMIC AND DEMOGRAPHIC STATUS OF TRIBAL WOMEN**

The socio-economic status of the tribes play an important role in differentiating the individuals from each other. Although in a tribal society, socio-economic status among individuals had relatively less differentiation and a few acclaimed spiritually and mystically superiors were considered as important persons. However, subsequently the SES gained special importance for several social and economic developmental reasons and hence distinguishing the tribals on socio-economic parameters has gained importance for their developmental purposes.

Subbarama Raju et al., (2009), studied Chenchus and Social Transformation a Study of a Primitive Tribe in Kurnool District of Andhra Pradesh. The Chenchus are one of the aboriginal tribes of Andhra. The analysis has been presented with reference to Moity groups. The sample households are divided into three specific groups based on the Moity of the Chenchu households. It must be born in mind that changes and developments experienced by Chenchus under reference are within the overall context of the trends of change and development that have been taking place in the country during the past five decades.

Ubaidullah (2004) Study on promotion of sustainable bio-diversity and changes in life style of the Yanadi tribes, reports on an action programme in Chenchu Lakshmi Colony of the Rajula Kandriga hamlet of Chittoor district. The study reveals that conservation of forest biodiversity was combined with a maximum exploitation of marketing avenues and the elimination of middleman. The Yanadis were organized into self help groups, which led to an increase in the quality of life, eradication of the scourge of alcoholism, elimination of child labour and the empowerment of women. Under the SHG programme, every week, each of the new loans, programmes arranged by the SHGs have liberated the tribals from the clutches of moneylenders and developed financial discipline. By imposing a fine on those who indulge in the drinking and by bringing social pressure to bear, the Yanadi as a group have succeeded in eliminating the unfortunate liquor addiction among the men folk in this colony. Earlier, the tribes...
did not know the importance of the small family. Now, they have adopted it. All
another who have two or more children have got themselves sterilized. As a
result, the health of mothers and children was protected and further deterioration
in the quality of life has been arrested. They have developed the saving habit and
judicious use of their meager resources.

Subramanian (2004) made a study on Tribal Ecology and food security – A
study in Visakha agency area of Andhra Pradesh. The data was collected in
Pasuvulabandu and Chowdupalli villages of Chintapalli mandal of Visakhapatnam
district. The tribal farmers in these two villages practice both settled and shifting
cultivation. The Hill stream and springs are the main water resources available to
the tribal communities. Most of the tribal families domesticated the cows mainly
for the progeniture of calves. The tribal families collect the fire-wood from the
forest for fuel purpose. The staple food of the tribes is Ambali (ragi gruel). However, consumption of rice, if available, once in a day is also observed. All
tribes are non vegetarians. Food crisis is common to the majority of tribal
population in the agency area. It plays a major role in the social organization of
the tribal society. Due to non-availability of sufficient food resources to the entire
population in the area is unable to escape from the pangs of hunger. There is also
problem of malnutrition. This is also considered to be the hurdle for economic
development in certain tribes.

Bhasin(2004) carried out a study on ecology and study of women among
tribal’s of India. The study corroborates the promise that women’s status was high
when they contributed substantially to primary subsistence activities. In spite of
lack of control on material and social resources, their contribution to substance
economy gives them important and irreversible position.

Das (2001) made a study on ecological and socio-economic profile of three
Kondh villages of Phulbani district of Orissa, India. The study reveals that most of
the villagers older than 14 years were illiterate. Kondhus live in small 1-2 rooms
and thatched mud houses constructed with mud or mud with wooden sticks.
Marriage among Kondhs takes place between natural power and worship of God
and Goddess. Most of them depend upon daily wage or cultivation coupled with
daily wage. The local production system was the resource base of the village. The staple food of the villagers was rice. All adult male tribes generally consumed country liquor every day. Podu is an important traditional agricultural practice of the Kondhs of the eastern ghats of Orissa.

Reddy et al., (2000) carried out a study on environmental impact on the economic life of Yerukula tribe (a case study of Rayalaseema region of A.P.). The study reveals that Yerukula was one of the principle tribes of the A.P., mostly inhabiting in and around the forest areas of Nallamala forest region and range. They are, in general, semi-normadic and gradually settling down. Yerukula tribe was a wandering tribe connected with occupations such as basket-making, stealing, begging and fortune telling. The Yerukula are good at basketry and most of them are employed in that art. Bamboo is the raw material available in Nallamala forest region and other areas of Rayalaseema region of Andhra Pradesh.

“Socio-economic condition and dietary habits of Reang tribe” was examined by Swapan Kumar et al., (1998). They concluded from the above study, that the average family size and sex ratio of, Reang families were more than the Bengalee families. Literacy rate of Reangs was lower. 52 per cent of Reang families still live in their special type of house named “Tong Ghar’, while Bengalees preferred kachha house. 86 per cent of Reangs were still habituated to defecate in open air, where as this type of defecation habit was rarely found among Bengalees. Average income of the Reang families (Rs. 893.3 ± 294.3) was significantly (P<0.001) lower than the Bengalee families (Rs. 1494.1 ± 380.4).

An overview of the socio-economic and demographic transition among the Santals was studied by Kalyan et al., (1998) and they concluded that the field of education have achieved a little over 12 per cent of literacy in Bihar and West Bengal and 14.91 per cent in Orissa. They were found to marry at adult age. Bihar was having the largest share of Santal population followed by West Bengal and Orissa and their growth rate was below national average. Inspite of the different developmental Programmes, their socio-economic status was below the desired level. However, an all around transition has set in their life.
A study was undertaken by Mishra et al., (1998) on “Demographic characteristics of the Baiga tribe of Madla district of Madhya Pradesh”. The study revealed that the Baiga population was very young and high fertility and mortality levels were prevailing.

Sikdar et al., (1998) assessed the impact of education on awareness of family planning programmes among the Santal women. It has been found that only 32 per cent of Santal women were semiliterate and other 68 per cent were totally illiterate. Socio-economic conditions were very low in this tribe. Among them, 80 per cent of Santal women were aware about their own education. 36 per cent of Santal women had positive attitude i.e., aware about different family planning programmes. Literacy status of Santal men was higher than their wives. 2 per cent women have some knowledge about vasectomy, tubectomy, IUD; other 98 per cent of Santal women were totally unaware about these three methods.

Gautam et al., (1997) assessed the Anthropo-Demographic features and health care practices among the Jaunsaris of Jaunsar Bawar of Dehradun. The findings highlighted that the total fertility rate (TFR) of the Jaunsaris (3.84) was marginally higher than the Indian national population of 3.8. The current population growth rate of 20 per cent of the Jaunsaris was marginally higher than that of Indian national population of 19.8.

Sengupta et al., (1997) made an attempt to describe the socio-cultural variations and selection intensity among the oraons of Assam. The study was based on differential fertility and mortality computed for Oraons of Dibrugath district, Assam. Total index of selection was acting with relatively greater intensity among Christian Oraons compared to their Hindu counterparts. The index was much lower in extra Oraons labourers than those who still work in tea plantation as labourers.

Study on “Structure and marriage patterns among tribals in Karnataka” was attempted by Mutharayappa (1996). Findings revealed that Jenu Kuruba and Kadu Karuba tribes were endogamous in character, having different social structures & marriage patterns. While Khadu Kurubas have divisions and clans among them,
the Jenu Kurubas do not have any clans but they speak of god and groups. Among Kadu Kurubas, the parti-sibs help in regulating marital relations. The Jenu Kuruba children were free to marry anyone they like among them but one should not marry blood relations. Very often, they separate and remarry in succession. Among these tribes, there was very little control for elders over the brides & grooms. They acquire a male both arranged by parents and also by elopement. Both consanguineous & non-consanguineous marriages were prevalent among these tribes.

NIN (1996) assessed the health and morbidity profile of Gonds of Jabalpur. 2734 individuals have been examined. The study revealed that most of the households were nuclear type (63.1 per cent). The average size of the household was 4.5 per cent. Agriculture was main occupation (67.9 per cent). Almost all the houses (98.2 per cent) were of kuchha type without sanitary latrine (99.8 per cent). Open pit was used in 78 per cent household for refuse disposal and animals were kept inside the living room (86 per cent). Most of the households (74.5 per cent) used tube well water for drinking.

A study was undertaken by Kanta Chakravarthy (1996) on maternal education and its relation with fertility and mortality. The findings revealed that the fertility level declined considerably with an increase in the educational level of women. In rural sample, fertility rate of less educated mothers of all ages was 4.86 and 2.89 for the mothers who were educated. Similarly in urban sample, total fertility rate of educated mothers of all ages was 4.75 and 3.14 for the mothers who were educated. It also appeared that in both the samples, lower educational level occurred generally among the older mothers than the younger ones.

Chaudhuri buddadep(1996) made a comparative study between the tribal and non-tribal population to assess the “Sex ratio of the scheduled tribe population in India”. It has been observed that the tribal societies in North Eastern states were characterized by either matrilinity or female supremacy. Women from these communities do not suffer from many of the discriminations to which the females from other communities were subjected to. This was evident from the sex ratio exceeding 1000 in Meghalaya and Arunachal Pradesh and a sex ratio of 1997 in
Mizoram. Arunachal Pradesh however, enjoys the highest tribal female work force participation rate among the states and union territories. Thus high work force participation rate combined with cultural patterns plays an important role in improving the sex ratio of women among the tribals.

NIN (1996) conducted a study on the Demographic characteristics and health seeking behavior in Pando tribe of Sarguja district. They reported that the average annual income was Rs. 10,210, three-fourth of the households were joint families. The literacy rates among males and females was 29.6 per cent and 11.2 per cent respectively. The mean age at marriage for males was 17.0 years and for females was 1.34 years. About 15.5 per cent marriage were consanguineous. Majority of the respondents (92 per cent) were aware of family planning methods.

Tanuja et al., (1995) made an attempt on the status of tribal women in Singhbhum district of Bihar state. It was found that majority of them were Hindus (99.6 per cent). Among the different tribes Santal (59.0 per cent) was the largest group. They were followed by Bhoomiji (25.2 per cent) and Mahalli (11.7 per cent). Birhor tribe was the smallest group (4.1 per cent). Over 96.0 per cent of the tribal women were illiterates engaged in agricultural manual work (97.3 per cent).

Khan (1995) studied on Economic life among the Gaddas of Bastar. It was evident from the study, that about three-fourths of the heads of the households have own land up to 6 acres. The remaining owned land from 7 acres to more than 13 acres. But their proportion was less. The possession of land influences the capacity to maintain caste as well. About 38 per cent of the heads of households have an income of less than 2000 rupees, 36 per cent have Rs. 2000-3000, 11.3 per cent have 3000-4000, 3 per cent had income that exceeded Rs. 5000/- and above.

Palta et al., (1995) assessed the “Socio-economic profile of the Kamars of Madhya Pradesh”. The study revealed that the Kamar families had quite a low socio-economic status. Housing and sanitary conditions were not satisfactory. The level of illiteracy shows their poor educational status. The average family size of the Kamars comes to 4.73. The water supply to Kamar settlements also was inadequate. Economically, most of them had no assets.
Rajya Lakshmi et al., (1995) described and analyzed the “Traditional food and agricultural practices of tribals of Vizianagaram district of Andhra Pradesh”. They reported that the population above 20 years, constituted 61 per cent. The male to female ratio was 1000 : 1032. The dependency ratio in the tribes was 26.5 per cent.

Sahu et al., (1995) undertook a study the “Socio-economic and demographic profile of the Suddha Saura of Orissa”. The findings indicated that the total population of the ten selected Saura villages was 1011. There were more Saura males than females. The proportions of child population, the economically active population and aged population among the Saura were 32.6 per cent, 63.8 per cent and 3.5 per cent respectively. The dependency ratio was 0.56. No marriage takes place below 15 years of age. The average age at first marriage for males was 22.6 and for females 18.5 years. Maximum number of females married between 15-19 years of age and males between 20-24 years. The average duration of marriage was 16.7 years and on the average 3.3 children were born in this period.

Choudhary (1994) described and analyzed a sample of 184 Mirdha women from Sambalpur district of Orissa, to determine the menarcheal age among them. The mean menarcheal age was observed to be 13.30, with a range of 12 to 15 years. No abnormal case was found. The present finding was compared with those of some other populations of Orissa in particular and India in general. The mean menarcheal age of Mirdha women was nearer to those of the Karan and Kondh of Orissa, t-test showed significant inter-tribal variation.

“Status of Tribal Women” was examined by Borthakur (1994). The findings revealed that women were given fair treatment in the society. Dowry, child marriage, female infanticide and atrocities on women, were generally found among most of the Khamyang community. Opportunity to participate in political and religious spheres also were very limited among the Khamyang women. The Khamyang women were not involved in decision making process. As such they were not found holding any positions in political and economic institutions.
Oberoi et al., (1994) conducted a survey on “Environmental limitations, socio-economic status and constraints of tribal economy in outer Himalayas”. The study revealed that lack of transportation and lack of basic infrastructural facilities were the major constraints for their development.

Hanumantha Rao et al., (1994) made a comparative study between Maria Gonds of Bhamragad area of Maharashtra and Bastar of Madhya Pradesh to assess the “Levels of malnutrition and socio-economic conditions”. The study revealed that the average monthly per capita income was Rs. 50/- among Maria Gonds of Bastar. Labour (66.2 per cent) was the major source of income in Bhamragad as against agriculture (69.9 per cent) in case of Bastar. Both by extent and type of malnutrition. Maria Gonds of Bhamragad were comparatively better than those of Bastar. The dependency of the Maria Gonds of Bastar primitive forms of agriculture with low yields of food grains and lack of income generating activities, resulted in low per capita income with ultimately reflected in their poor nutritional status.

Deogharia (1993) assessed the “Work participation of female tribals of South Chotanagpur”. It was found that the participation rates vary with the occupational status. The tribal female participation rate was comparatively higher than the non-tribal females of the area. Families with high social status had less female participation, as also those with higher literacy. Increase in the income level discouraged women from working for money, and low wage rate in the rural labour market also discouraged women’s work participation. Lack of sufficient work in the region forced these women to migrate to other regions.

Reproductive health behavior of the Note women in Arunachal Pradesh was examined by Kar (1993) and he reported that the females were having an edge on the males (M.F. ratio 100:101). Literacy level of the people was around 30 percent. Marriage with mother’s, brother’s daughter was a preferred one. Polygamy was permitted but was very rare. The size of the family varied from 1 to some times around 15. The position of the women in the society was relatively low.
Oraon (1993) made an attempt to study the present state of Education among the tribals and the attitudes and aspirations of tribal women regarding the education of their children. It was found that many of the tribals were still illiterates. The socio-economic status was related to their educational achievements of their children. Reasons identified for irregular attendance and non-enrolment were lack of interest, and the necessity for girls to do the household work.

Dam et al., (1993) conducted a study on Socio-demographic profile of tribal population in three Rajasthan Districts. Tribal population of Southern Rajasthan, the Garasia and the Bhils were part of overall tribal culture of Rajasthan. The people of this region were constantly being exposed to cultural change and were adjusting themselves to a large extent to present day situation. The various social institutions of their life have been experiencing changes of different magnitudes due to induction and diffusion from various places.

NIN (1993) reported on the “Socio-cultural aspects of health care in Khairwar of Sidhi District”. A sample of 37 households were studied. It revealed that all the households were of Kachha type. 84 per cent households were nuclear. Majority (54per cent) of the households had labour as main source of income followed by own agriculture (44per cent). The age at marriage of a girl was about 10-11 years preferably before the menarche (Mean age 13.3 years). There was no system of dowry. Khairwars do not marry blood relations. There was no bar on widow remarriage with brother-in-law.

NIN (1993) reported that the “Socio-cultural aspects of health care in Bharia tribe of Patalkot area”. The study indicated that the percentage of joint households was higher (41.7per cent) in inside valley than the outside valley (39.0per cent). The main source of drinking water was hand pump in Bharias of outside valley, while wells were main source of drinking water in the inside valley. In the study population, the mean age at menarche was 13.8 years and mean age at marriage was 16.6 years, mean age at Guana was 17.8 years. The consummation of marriage usually started after Guana. Remarriage of widows were permissible. She was permitted to live with her brother-in-law. The husband
of a sterile wife or of a wife who delivered only daughters, was permitted to remarry with the permission of the first wife.

A study of demographic characteristics of Khairwar tribe of Sidhi district was undertaken by NIN (1993). The conclusion of the study on type of households, main occupation of the household, education of the head of the household for the Khairwar tribe differ significantly than, other tribals of the area. Only 6.5 per cent population was found to be literate as compared to 17.5 per cent in non-Khairwar tribes of the area. The total fertility rate was estimated to be 2.3 for Khairwar women which was lower than that of non-Khairwar women which was 4.2. The sex ratio among the Khairwars was higher (1081) than the other tribes (967).

Sudhakar et al., (1993) made an attempt to study “anthropometric study of two tribal populations of Andhra Pradesh”. The study revealed that most of the measurements and few indices showed significant differences between Chenchu and Lambada in both males and female series. Comparatively most of the measurements showed significant inter population differences among women than men.

NIN (1992) assessed the Economic factors in the context of Health care of Kamar tribe. The study was based on the information collected from 317 Kamar households from randomly selected 25 villages in Raipur. It revealed that the annual income and expenditure per Kamar household was estimated to be Rs. 4788/- and Rs. 5171/- respectively. Majority (90 per cent) of the Kamar households were economically below poverty line. Labour (40 per cent) and basket making (31 per cent) were the major occupations of the Kamar people.

Khongsdier (1992) conducted a study on “some demographic traits among the Pnar of Sutnga and Moopala in Jaintia hills district of Meghalaya”. The data on reproductive performance of the marriage women were collected from 68 householders of the Pnar of Sutnga and Moopala villages in the Jaintia hills district of Meghalaya. In the present study, it was found that out of 585 pregnancies, 8 cases have been terminated into twin births. Thus, the frequency of
multiple birth was 1.42 per cent of the total live births and 1.34 per cent of the total pregnancies.

NIN (1992) reported on the “demographic situation in the problematic village”. It has been observed that the average size of Khairwar households in Harrai, was 2.5 whereas in other villages it was 3.8. The differences was statistically significant. The sex ratio of Khairwar in Harrai villages was 1064 while in others, it was 1083 among the Khairwars living in other villages and 966 among the other tribes living in the area.

A study of demographic characteristics of Kamar tribe was carried out by NIN (1991). They found that the Kamar tribe was socially and economically backward. The population was young. The mortality level was high. The fertility levels were comparatively low. More than 50 per cent population have occupation as labour. Only 0.1 per cent were engaged in service. Majority of householders were nuclear (81 per cent) and the average household size was 4.7 persons.

2.2. STUDIES ON NUTRITIONAL STATUS:

Nutrition is an important factor determining the quality of human life. In India, Mal-nutrition is one of the most important health problems. In the country, the incidence of severe protein energy mal-nutrition in school children was 1 per cent to 2 per cent and mild to moderate mal-nutrition nearly 80 per cent (Gopalan). At present nutritional disorders like protein calories mal-nutrition, anaemia, angular stomatitis, petropaltholnia, Goiter, Beriberi, Pellagra Rickets, etc. are the major problems. This is the main reason for very high percentage of infant, child, pregnant and nursing women mortality rates. In the tribal society mortality and morbidity rates are higher than in the non-tribal society. People live in very difficult ecological situation. They some time get plentiful and good food while sometimes they starve. Numerous studies have shown a close relationship between the ecosystem and their nutritional status. Diet and nutrition studies of tribal society are more important than the non-tribals. They are much nearer to native than rural or urban population since their food needs are met from nearby
fields and forests. In most of the tribal areas food availability and consumption patterns depend on local or natural resources.

Several studies were carried out all over India to find out the nutrient intake of different tribal communities. The nutritional problems of different tribal communities located at various stages of development are full of obscurities and very little scientific information on dietary habit and nutrition status are available due to lack of systematic and comprehensive research investigations.

Chakma (2009) conducted a study on Nutritional Status of Baiga – A Primitive Tribe of Madhya Pradesh. The extent of malnutrition for preschool children was assessed by SD classification and the nutritional status of adults was assessed by BMI classification. About 61 per cent of the pre-school children were under weight (<Median -2SD) out of them 24.3 per cent children were severely under weight. Stunting and wasting were seen in 44.3 per cent and 37 per cent children respectively. Prevalence of chronic energy deficiency (BMI<18.5) was about 76 per cent among adult population. Consumption of cereals was higher than recommended level (460 gm), while the consumption of other foodstuff was lower than the RDA. The intake of all nutrients except calcium was significantly lower than recommended level. The present study revealed that malnutrition is widely prevalent among tribe which is mainly due to inadequate dietary intake.

Laxmaiah (2007) carried out a cross sectional study was carried out to assess the diet and nutritional status of tribal population in ITDA, Bhadrachalam in Khammam district of Andhra Pradesh. A total of eight hundred households in twenty villages from five Mandals, were covered for survey. The study reveals average conception of all the foods except cereals and millets were below the recommended level. The average intake of all the nutrients was lower than the RDA. The extent of deficit was highest with respect to vitamin A (83 per cent), followed by riboflavin (64 per cent), iron (59 per cent) and total fat (47 per cent). Protein calorie adequacy status revealed that about half of the HHs (52 per cent) were consuming adequate amounts of both protein and energy, while about 21 per cent were consuming inadequate amounts of both the nutrients.
Kaushik Bose and Falguni Chakraborty (2005) carried out a cross-sectional study to determine anthropometric profile and nutritional status based on body mass index (BMI) of adult Bathudis, a tribal population of Orissa, India, were studied. In conclusion, this study demonstrated that the prevalence of adult undernutrition was found to be very high among the Bathudis, a tribal population of Keonjhar District, Orissa. These rates were much higher than those found in several tribal populations from other parts of India. Therefore, immediate nutritional intervention programs are needed for implementation among Bathudis. Moreover, further research is needed not only among this ethnic group but also other tribal populations of India to fully understand the cause and consequences of adult undernutrition.

Rao et al (2005) studied Patterns of Growth and Physiological Variables Among Khond Tribal Population of Visakhapatnam District, Andhra Pradesh Analysis of the data reveals that all the measurements showed significant differences by sex according to age. Khond boys and girls are shorter lighter with broader chest and head circumference than ICMR (1984) National standards. The growth curves shows as measure of population well being, secular trend, and the much neglected subject of the relation between mental and physical development. The findings of the study can be used as reference material for Khond boys and girls of Visakhapatnam district.

“A note on dietary habits and malnutrition among tribals of Bastard, M.P” was attempted by Choubey (1998). The study revealed that due to lack of various nutrients in the diet of Tribals of region, they were likely to be more susceptible to diseases or to have weak resistance power. Faulty dietary habits, selection of food stuffs, poverty ignorance, and tradition were some of the other factors which were likely to affect their nutritional status. Personal bad habits like smoothing, chewing tobacco and drinking country liquor, rice boor a large quantity were additional factors which make them susceptible to various health hazards.

Khongsdier et al., (1998) described the food and nutrient intakes among the Dimasana of North Cochar hills in Assam. The findings indicate that the over-all dietary intake among the dimasana was more or less according to the
recommended allowances given by the Indian council of Medical Research, though the consumption of nutrients like iron, carotene and vitamin B12 was for below the recommended requirement. The problems concerning the practical method for measuring under nutrition in a population were pointed but taking into consideration the use of recommended allowance for any given nutrient as a cut-off point and the hypothesis of homeostatic variation in dietary requirements.

Priti et al., (1998) studied the nutritional status by anthropometry of tribal women of Jhabua district of Madhya Pradesh. Households with men in the reproductive age group i.e., 18 to 45 years were studied. Categorized women in the age group i.e., 18 to 45 years were studied. They were categorized as pregnant and lactating status. The findings revealed that the Bhil tribal women were living in a state of great deprivation due to poor socio-economic status. Anthropometric measurements show that the weight deficits were maximum compared to height, BMI values indicated higher prevalence of moderate forms of malnutrition. Almost three-fourths Bhil women in all physiological groups belonging to lower socio-economic status were in moderate grade of malnutrition. This is likely to have an adverse long term impact on their own health as well as on the welfare of the entire family.

Roy et al., (1998) examined the present state of socio-economic condition and dietary habits of Reang tribal community of Amarpur subdivision of South Tripura. A total number of 181 Reang tribes were going through a transition phase in most aspects, even though they still retained some of their primitive forms of socio-cultural and economic entities viz., large family size, Tong ghar, defecation habit, infant feeding practice, etc. Primitive form of cultivation and free collection from near by forest. However, the traditional economy of gathering, hunting and Jhuming has lost much of their importance due to scarcity of forests and tillah land. They were more dependent on plough cultivation and salaried jobs. Along with these socio-economic change, dietary habit of Reang communities also changed, though not very vividly. Dietary habits of Reangs were different from the dietary habits of Bengalees, specially in their cooking procedures and variations in intake of dietary foods. The intake of vegetables was
high. Low fats and oils, pulses, milk etc., either might be due to their primitive pattern of dietary habits, related to their socio-cultural background or due to their poor economic condition or due to the combination of both.

Srinivasa et al., (1998) assessed nutritional status of the Muria population, the study was based on 100 unrelated individuals (50 adults males and 50 adult females) from Karli village of Danta wade Tahsil. The pignet index shows that 70 per cent of Muria males had weak to poor state of physique. Borkes index value indicates that 50 per cent of males and 30 per cent of females were under nourished. Body mass index indicates that 48 per cent of males and 48 per cent of females were in chronic energy deficiency.

Thakur et al., (1998) conducted a comparative study on household consumption expenditure in the high zone of Himachal Pradesh among tribals and non-tribals. The study reveals that the percentage expenditure on non-food items in the total household consumption expenditure, shows an increasing tendency with an increase in the size of holdings among both tribal and non-tribal farmers. Thus the empirical results of the present study states that as the income increases, the percentage expenditure on food items decreases and that on non-food items increases.

Guru et al., (1997) conducted a study on maternal nutrition, antenatal care and infant mortality in the Rayagada district of Orissa state. The nutritional status of the Paraja population lived under acute poverty and their nutritional standards were likely to be low. It was observed that slightly above one fifth (22.75 per cent) of the Paraja mothers possessed good weight for height status. Moderate weight for height status constitute 45-10 per cent and almost one-third (32.16 per cent) belonged to the category of poor weight and height status 46.27 per cent of Praja mothers were severely anemia. Only 16.85 per cent were normal. Rice during summer and winter and maize during the rainy seasons constituted staple food among the Parajas. Even regular consumption of pulses was not possible meat or fish among the Paraja. Majority (63.13 per cent) of the mothers in the sample did not receive any antenatal care during pregnancy of the index child. Only a small proportion of mothers (13.72 per cent) received complete antenatal care. A very
low proportion (18.04 per cent) deliveries took place in a hospital in the population under study. An overwhelming proportion (8.96 per cent) of deliveries were carried out at home which were attended by indigenous untrained dais or elderly female members of the family.

Rajarathnam et al., (1997) studied the maternal and child health practices and nutritional status of Malto tribals in Bihar. Anthropometric measurement of mothers and their children were taken using standard procedures. Mother’s antenatal practices and child feeding practices were ascertained to understand the reason for poor nutritional status. During the last antenatal period, 87 per cent did not have TT injection, 83.3 per cent did not consume iron and folic acid tablets and 74 per cent did not have any restriction over the food. Almost all had home deliveries except one. Over 80.9 per cent had given colostrums to their last child. The nutritional status of mothers of malto tribe was poor when compared to general population. Around 50.0 per cent of mothers were stunted and 52.9 per cent of the mothers were under weight.

Shukla et al., (1997) conducted a study on diet and nutritional status of Muria of Baster. 50 adult males and 50 females were measured for the nutritional anthropometry. This study reveals that most of the murias were under nourished as ascertained by dietary intake as well as different anthropometric indices. Their diet mainly lacks in calories. Vitamin B₂ and niacin. It is evident that mostly they were having weak physique and were in chronic energy deficiency state.

ICMR (1996-97) conducted studies on health and nutritional status of Great Andamanese a primitive tribe of Andaman and Nicobar Islands. Andamasese diet was found to be grossly deficient in green leafy vegetables and other vegetables. At the same time, their meat intake was eight times the recommended daily allowance. All the families had deficient intake of iron, vitamin A and riboflavin. Andamanes adults as a whole had better nutritional status with only 23.5 per cent of them having BMI less than 18.5 Haemoglobin estimation showed that 94.3 per cent of them were anemia. Moderate to severe degree of anaemia was more common among them, drinking water sources in the Andamanese settlement were found to be contaminated and unsuitable for human consumption.
Vaishnav (1996) conducted a survey to know the nutrition status in Chaudhari tribe of Gujarat. This study found that staple food grains of the tribes were Jowar and rice. The most important pulses were ‘Adad’, ‘Tuer’, Val and Vatana (Pea) etc., Leafy vegetable were consumed in large quantity in the rainy season but very little of it was eaten in winter and summer. They were ‘Khat : bhaji’ (Hibiscus canabinus), Tandalia (Amaranthus), Nalibhaji (Sweet potato leaves), Palak bhaji (spinach), Segathi Bhaji (Drumstick leaves), Palak Bhaji (Spinach), methi (Femugreek leaves) etc., Sun dried leafy vegetable and were store up for the off season. Common fruit and flower vegetable were ‘val’ (field bean). ‘Hola’ (Pumpkin), ‘Dudhi’ (Battle gnard), ‘Ringana (Brinjal), Bhindo’ (ladies finger’s, Turia (Ridge gourd), Tindodi (Kovai), etc., Potato, Onion, Alui, Sakaria (Sweet potato), ‘Suran’ (Elephants) and other tubers were also consumed. Consumption of cereals was satisfactory. Pulses, sugar and Jaggery were nearly satisfactory. Consumption of roots and tubers, fruits and flowers, vegetables and milk products were not satisfactory. Consumption of leafy vegetables, oil and fats, flesh food, fruits was way below the recommended quantity. Consumption of protein, phosphorus, iron, thiamine, niacin are satisfactory. Consumption of energy, riboflavin were not satisfactory. Fats, Vitamin A, Vitamin C, Calcium were below the recommended allowance.

Rajya Lakshmi et al., (1995) made an attempt to study the traditional food and agricultural practices of tribals in two agency blocks namely, Bhadragiri and Pachipenta in Vizianagaram district in Andhra Pradesh which has a tribal population of 1.53 lakhs. The major tribes in the area were Jatapu, Savara, Gadaba and Konda Dora. Agricultural and allied labour, apart from collection of forest produce from the major economy also cultivate diverse food crops. The main storage structures of the tribal’s are earth wares and majority of the tribal stored staple food grains for a period of six months or less. Tribals also store some wild foods like mushrooms, tender bamboo shorts, caryoto palm pith, mahuva seeds. Sun drying was the common practice followed prior to storing of foods. Millets were the staple food of the tribals. They follow traditional parboiling of millets and paddy. Elaborate processing is practiced in case of wild foods like dukka chikkudu (Mucuma Pruriens), while tuber (Disosocea hispida)
storage and preservation of fruits and vegetables were uncommon with the tribes. Tribes follow primitive techniques like parboiling, storing and cooking of foods.

Sharma et al., (1995) made an attempt to assess nutritional status of Hill Korwa tribal population of Madhya Pradesh. The study based on 239 unrelated individuals (136 adult males and 103 adult females) from predominated inhabited villages namely Ghatgaon and Sewari (Rajpur blocks), Jori and Raghupur and Khala (Ambikapur blocks) of the Suguja district, M.P. The pelidisi index indicate that all males and females have low nutritional status, whereas the pignet index shows that 0.82 per cent, 1.64 per cent, 18.03 per cent, 28.69 per cent, 27.87 per cent, 13.11 per cent and 9.84 per cent males were belonging to study, good, average, weak, very weak and poor nutritional status groups, respectively.

Thanuja et al., (1995) carried out a study to measure the extent of malnutrition among the tribal women of Singhbhum district of Bihar state. Complete data were available for 222 tribal women. Tribal women in this study did not have the habit of wearing slippers when they go out. This may increase the chances of getting hookworm infestation there by causing anemia. Thus majority of women were at a risk of delivering low birth weight babies and have pregnancy complications. Some of the reasons for under nutrition among tribal women could be poor diet intake, ignorance, early marriage, and high morbidity due to unhygienic practices and surroundings. Under nutrition of mothers may be carried over to their children. Hence, there was a need to provide special attention to this group in improving their nutritional status by intervening appropriate health and nutritional programmes like nutrition education, iron supplementation and deworming both during adolescence and during adulthood.

Vaishnav (1995) made an attempt to bio-cultural study of diet and nutrition on Gamit tribe of Gujarat. Altogether 45 families from the Gamits were brought under diet survey, Principal food crop was ‘Jowar’. The next important food crops were ‘Bhat’ (rice), ‘Tuver’ (pegion pea), ‘Arad’ (phascalcus mango), ‘val’ field bean ‘Mag’ (kidney bean) and some seasonal vegetables. These people entirely depend on locally produced food grains. The tribes do not take new food grains before Diwali festivals. They believe that if they have new food grains before
Diwali, ‘Kansari mata’ (local goddess) they lose their energy and will cause bodily pain and illness to them. In the tribe, during pregnancy, lactation period, at the time of pooja and in some feasts meat, egg, fish and chicken were not allowed. Similarly they do not take milk and non-vegetarian food in some days. During illness chilies, oil and heavy foods were not eaten and only light foods were preferred. Milk, fruits, honey, meat, eggs and fish are recommended for weak persons. They consume very small amounts of oil, milk and milk products, flesh foods, fruits, leafy vegetable, fruits and flowers vegetables, sugar and jaggery, roots and tuber vegetables were consumed in nearly sufficient quantity of cereals and pulses were used sufficiently. The consumption of calories, protein, Niacin, thiamine, phosphorus and Iron were satisfactory consumption of fat, Riboflavin were low, vitamin ‘A’, vitamin ‘C’ and calcium were very low compared to recommended allowance.

Sudhakar Rao (1994) studied the nutritional ecosystem among tribes of Sriharikota. The ecology of Shriharikota has been quite hospitable with life sustaining resources. The Yanadis were well adopted to it. The forest provided them with employment of wage labour and a variety of tubers, fruits seeds and leaves. The harmless animals and birds taking shelter in the island have been providing small games to the inhabitants. The ponds, ditches of the island, Pulicat lake, Backingham canal and the sea are serving as major sources of fish. The Yanadis have been using very simple and crude methods for food gathering, hunting and fishing. The loose sandy soil was very advantageous for collection of tubers and for hunting small game. Dogs were used for hunting the animals. Yanadis do not store any kind of food except fish. It may be due to the fact that the items that required to be stored were not available or there has been no need for storage as the food was plentifully available. The Yanadis today suffer from the pangs of starvation which was unknown previously. Their nutritional status has deplorably degraded and a systematic study should be taken up it will be difficult to assess the extent of damage. In the peculiar circumstances, though the food was at hand in abundance ironically they were unable to enjoy it.
Kulkarni (1993) conducted a study to assess the malnutrition in Junnar and Dhule tribal of Maharashtra state. The study revealed that although these tribals have basic potentialities to grow normally, the overall malnutrition due to several factors have affected the growth, indicated specially through body weight and mid upper arm-circumference. An intermittent intervention programmes of environmental ecological balance and various health on nutritional practices to some extent might help improving their nutritional status. This could possibly be done by alternated intervention and assessment activities.

Hanumantha Rao et al., (1992) conducted a study on “Nutritional status of Maria Gonds – A primitive tribe of Maharashtra”. The study revealed that Maria Gonds were better off as compared to their rural counter parts in Maharashtra as revealed by their better food and nutrient intake and anthropometry. They were also found to be better off than the Gonds to Bastar who mainly depended on agriculture. Thus the tribal population inhabiting isolated regions with little exploitation by outside people and with sufficient employment potential was found to be nutritionally better.

Sar et al., (1992) studied the consumption pattern of tribes in Thane district. The study was based on a diet survey in 120 rural households in Thane district, out of which, 42 tribal households were selected randomly and surveyed. They reported that the intake of almost all the foodstuff, except pulses, vegetables roots and tubers, was inadequate among the tribes. At overall level, the calories intake was inadequate while protein intake was just adequate among the tribes of Thane district per day per capita cost of the tribal was Rs. 6.81 which was less than the cost of balanced diet (Rs. 7.04). The diet of tribes with respect to 69 and 52.4 per cent households was deficit in calories and proteins, respectively. Among the various factors selected, family size and annual income seemed to have profound influence on calories and proteins intake of the tribes.

NIN (1990-91) reported the nutritional status of certain tribal groups of the north-eastern hill states. Their consumption level, in general, tended to be more than what has been recommended in the “Balanced diets” by SMP. The daily
average intake levels (per CU) of nutrients such as protein, calcium, iron, riboflavin and thiamine were more than RDA in all the tribal groups.

Mohanty et al., (1991) made an attempt to study the food habits, childhood mortality, growth and nutritional status of the rural kisans of Sambalpur, Orissa. It was observed that their average diet was much inferior to standard balanced diet required for normal growth and well being. Nutritional status as studied by weight/height index shows the presence of malnutrition among 46 per cent adults. The observed childhood mortality was 18.75 per cent and the rate of pregnancy wastage among the kisans mothers was 8.1 per cent.

NIN (1990) studied the nutritional status of primitive tribes in Andaman – Nicobar Islands. Glossitis was observed in one adult women. The daily intake of foods like cereals, oils and coconut did not include very much. But the consumption of fresh foods like Pork, Tortoise, Crab and Fish showed wide consumption from day to day. Protein intake varied between 45-90 gms and calcium between 150-670 mg CU per day. Intakes of all nutrients except for protein and thiamine were lower than the RDA. Among the Andamanese, the adult women were very short with a mean height of 140 cm and heavier by about 7 kgs compared to rural women. Some of them showed vitamin A deficiency and pallor suggestive of anemia.

Kasar et al., (1990) studies the consumption behavior of tribals of Ambegoan tahsil in Pune district. The study revealed that food was the major item of family expenditure which alone shares 67.74 per cent of the total family expenditure. The major items of foods were cereals followed by vegetables, pulses, sugar and jaggery, milk etc. The consumption of cereals alone provided 80.60 and 70.72 per cent of total intake of calories and proteins respectively. There was no nutritional gap from the view point of the minimum intake of calories and proteins recommended for average work. However, their diet was marginally inadequate to provide the minimum allowance of calories and proteins per day required for the purpose of hard work. This was mainly due to the inadequacies in consumption of pulses and protective food such as vegetables, fruits milk, fats and oils, egg, fish, meat etc. The consumption expenditure of
tribals was found to be significantly influenced by the annual gross family incomes and the family size in adult units.

Pande et al., (1990) studied the nutrient intake of selected tribal population in Kinwat area of Maharashtra. Forty five families were selected from Gond (12), Andh (12), Pardhan (11) and Kolum (10) communities. The differences in intake of calories and protein among the four tribes average did not reveal any statistically significant variation. It was observed that the intake of protein by adult male and adult female (90.01 and 68.5 gm respectively) was more than recommended allowances.

2.3. STUDIES ON HEALTH STATUS

The world health organization has defined health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. The basic concept of health and disease, in this sense, needs an empirical investigation in various societies for acquiring specific details. In the recent times, there is a spurt in ethnomedical studies, particularly among rural and tribal communities (e.g. Jain 1968, Datta Choudhuri and Ghosh 1984; Chandhuri, 1986 and 1990). The health status and actiology of health problems amongst the tribal population calls for separate studies due to diverse social environmental conditions prevalent in different tribal regions.

Health has always been a major concern of community development. It is a basic requirement, not only for the fulfillment of human aspirations, but also for the enjoyment of all mankind of a better quality of life. It was also indispensable for a balanced development of the individual within the family and as a part of the community and the nation.

Sathiya Susuman (2012) has attempted to find out the correlates of Antenatal and Postnatal Care among Tribal Women in India, Data for this study were taken from District Level Household Survey on Reproductive and Child Health , a representative sample of 1569 Scheduled Tribes’ currently married women aged 15-44, residing in eight districts of Chhatisgarh. Adjusted effects (odds ratios) analysis has been used to find out the effects of antenatal and post-
natal care on institutional delivery in Chhatisgarh. It is observed that majority of the Scheduled Tribes’ women, about 84 percent, have a low standard of living. Also, 74 per cent of the Scheduled Tribes’ women are illiterate. The finding of the adjusted effects (odds ratio) shows that giving birth in the medical institution for the Scheduled Tribes’ women who received full antenatal check up is 2.5 times higher than those women who did not receive any antenatal check-up. It suggests that majority of the currently married Scheduled Tribe women have low standard of living there is a need to improve their economic standard so that they can fulfil their basic needs.

Meenal.V.et.al.(2011) to find out prevalence of reproductive health morbidities among unmarried adolescent girls and to study the health care seeking behaviour during period of reproductive illness. Out of total 224 girls, 146(65.18per cent) girls were having one or more reproductive morbidity. A high prevalence of dysmenorrhoea (53.6per cent) was reported among adolescent girls. Backache was found to be a second common morbidity. A highly significant statistical association was found between age of girl and dysmenorrhoea. A highly significant statistical association was found between education of girl and reproductive morbidity. Out of 146 girls with reproductive morbidities, only 55(33.67per cent) girls sought heath care and 91(62.33per cent) girls remained silent without seeking health care. A high prevalence of reproductive morbidities was found among adolescent girls but heath care seeking behaviour was found to be very low.

Sutapa maiti et.al (2005) conducted a study on health care and health among tribal women in jharkand which lists antenatal and postnatal characteristics and family planning of tribal and non-tribal women which reveals the differential and poor status of the tribal women. Malnutrition is pervasive with high prevalence of anaemia. The utilization of health services and use of modern methods of contraception was found significantly less than the non tribal women which will likely have an adverse long term impact on their own health and wellbeing including their children.
Birinchi k.Medhi (2004) surveyed on health and hygiene of the Nahs of Arunachal Pradesh. The very geographical factors help them to maintain their traditional economy, social system and religious pattern almost intact. This is not by choice but out of the compulsion imposed by the geography communication system even today is not well enough to make the entry of modern ideas into their society. The change which has come among them is in the form of introduction of modern medicine system from outside. The people are traditional , yet they are not stubborn to accept the changes. As a result of that we find the unhesistancy acceptance of modern medicine system by them which does not come in confrontation with traditional values. The old and new exist side by side. They try to tackle the situation by adopting traditional methods and practices. They are not hesitant to take resist to modern medicine system at the same time in need. They are circumspective . The expectation from such a people living away from modern influence and concept of modern medicine system works well among traditional people.

Syamala (2004) has made an attempt to study the knowledge skills and performance of multipurpose health worker, working in tribal areas of Andhra Pradesh, their self perceived training needs in various maternal and child health and the knowledge of TBA’s in providing maternal child health services in tribal areas, which were found to be very poor especially in areas of intra natal, post natal and treatment of minor ailments. The skills were also far below satisfactory. Majority of them could not perform accurately even the basic skills like taking weight and height of pregnant women, the other skills like haemoglobin testing, urine testing for albumin etc. were performed by gross error. Health worker over estimated their level of knowledge and skills and under estimated their need of training. The TBA too were lagging behind in correct knowledge and safe practices in conducting delivery.

Deepak (2001) made a study on child mortality in three tribal populations of Shillong. The study deals with the early childhood mortality among the Khasi, Garo and Mizo tribe of Shillong in respect of causes of death, mortality rates and medical facilities. The study revealed that diarrhea respiratory troubles, asphyxia
and jaundice were the main factors causing child mortality in these three populations. Infant and under five mortality was found to be very low among the Mizo than India’s urban rate, whereas among the Garo, these rates were considerably lower in comparison with India’s urban population. When the medical facilities availed by the communities were taken into consideration, it was found that the Mizo availed considerably more facilities than the Khasi and Garo and in turn, the Khasi availed more medical facilities than the Garo.

Health modernity scale was administered by Arova et al., (1993) to measure scientifically correct information, on attitudes and behavior in relation to physical and mental health, diet and nutrition, family planning, breast-feeding, child care and health habits on a stratified random sample of 400 rural tribal women of Chotanagpur and Santal Paragana. The extent of health modernity on these dimensions varied from 0 to 3 per cent. The low health modernity was due to poverty, illiteracy and ruralness and it reflected in poor living conditions, faulty food habits, high prevalence of illness and disabilities and malnutrition in children under 5 years. He also identified areas of ignorance and misconceptions related to various dimensions of health modernity.

Chatterjee (1993) conducted a study on health of the tribal women in three economic zones – Forest based areas, denuded forest areas and industrial polluted areas of West Bengal, Bihar and Orissa. The study revealed that the incidence of disease was found to be lowest in the forest areas and highest in the industrial areas. It was also pointed out that the health of the tribal women was intricately related to their occupation.

Health status of Noctes in Arunachal Pradesh was studied by Kar (1993) who reported that the village did not have any permanent facilities for modern medical treatment. The living conditions of the people were responsible for majority of the diseases, and also emphasized that gross lack of personal cleanliness, sanitation, portable water, provision of minimum light and ventilation in the houses were responsible for the incidence of a number of diseases. Regarding the food habits, there were two harmful items consumed in plenty by the people.
Kar et al., (1993) studied the health culture and tribal life among the noctes of Arunachal Pradesh. The authors reported that the basic diet of the noctes consists of cereals, millets, vegetables, meat and fish. Rice is the staple food. A large variety of wild leaf vegetables, roots, tubers and fruits as well as pumpkin, brinjal, onion were also included in the diet. For expectant mothers they did not prescribe any special diet. There were, however, some food restrictions for them. Housing pattern show that the people were not conscious about personal cleanliness and sanitation practices. Lack of cleanliness, sanitation, potable water, minimum light and ventilation in the house is responsible for the occurrence of a number of diseases. The habit of defecating in the open was an important factory responsible for hook worm infestation. There were a number of diseases that were caused by natural factors, Eg. Malaria, scabies, worm, infestation, indigestion, jaundices and diarrhea etc. For the cure of these diseases, they resorted to natural, herbal or sometimes modern medical treatment. They generally went for medical treatment at the last stage when all the sacrifices and rituals and other measures have not yielded any result. Pregnancy being considered as a natural phenomenon, they were not interested in having regular medical checkups, taking medicines during pregnancy and medical help during child birth.

A study of economic factor in relation to Health care of Bharias was examined by NIN (1993). The findings highlighted that most of the Bharias (90.2per cent) lived below poverty line. Though agriculture was their main stay, they depended on forest service, cattle rearing, poultry, etc. 7.6 per cent Bharia households were land less, 16.6 per cent population was reported to be engaged in service. The percentage population engaged in service was lower (11per cent) among the Bharias inside the valley as compared to the others (16.6per cent).
2.4. STUDIES ON REPRODUCTIVE HEALTH STATUS

2.4.1. Menstrual aspects

Prakash (2010) studied on mean age at Menarche among Four Endogamous Populations of Coastal Andhra Pradesh. The age at menarche varies across the populations of the world and depends on various socio-economic, biological and genetic factors. In the present paper an attempt is made to present the distribution of age at menarche of girls belonging to four different endogamous populations of Andhra Pradesh namely, Kapu (peasant caste), Settibalija (toddy-drawing caste), Paki (scavenging caste), and Yerukula (plain area scheduled tribe). Data were collected from women living in rural area of Narasapuram mandal of West Godavari District of Andhra Pradesh, through personal interviewing. A majority of girls of former three populations attained puberty during 13th year of their age, while among Yerukula tribe, a majority reported the attaining of menarche at the age of 12th year.

Shipra nagar (2010) studied the awareness levels of menstruation and related aspects among 100 school going adolescent girls in the age group of 13-18 years in the tribal areas of Meghalaya. The mean age at menarche was found to be 12.67 years and was indicated that the respondents had an average level of awareness of menstrual aspects. Girls did not know about the meaning of menstruation and associated with periods, out of which, pain in lower abdomen and backache were the common responses. Knowledge of hygiene practices during these times was found to be good. A significant association was found between menstrual awareness and ordinal position of the respondents. Age of the respondents and total family income seemed to have good correlation with their awareness regarding menstruation and related aspects.

Veena et al (2009) studied age at Menarche in Two Caste Groups (Lingayath and Adikarnatakas) Groups of Mysore District. This study was to assess the level of knowledge regarding rituals, taboos, food pattern, social restrictions, health problems and nutrition observed during the menstrual period.
The results reveal that the mean age at menarche among the Adikarnatakas girls is 13.64.

Aimon (2007) carried out study on knowledge of adolescent girls regarding menstruation in Tribal areas of Meghalaya. The present investigation was aimed at studying the awareness levels of menstruation and related aspects among adolescent girls. The study was conducted in Rongram block of West Garo Hills district of Meghalaya with 100 adolescent school going girls in the age group of 13 to 18 years. The respondents were selected randomly from secondary schools of five villages. A pre-tested and modified self-structured interview schedule was formulated and information on the knowledge related to menstrual aspects was collected. The results revealed that most of the girls were in the age group of 16 to 18 years and studying in tenth standard. The mean age at menarche was found to be 12.67 years. It was indicated from the results that the respondents had an average level of awareness of menstrual aspects. Girls were aware about different problems associated with periods, out of which pain in lower abdomen and backache was the common responses. Knowledge of hygienic practices during these times was found to be good.

Age at Menarche in Three Caste Populations of Visakhapatnam of Andhra Pradesh studied by Lakshmi et al (2006) menarcheal age in three endogamous Vysya populations, Arya Vysya, Thrivarnika and Kalinga Vysya is reported. It has been observed that there is a decrease in mean menarcheal age with moving down in social hierarchy. Further, among the three population groups of Andhra Pradesh which have been studied at different times, decrease in mean menarcheal age has been found which show a secular trend.

Singh(2006) carried out a study on menstruation in the reproductive lives of women of rural North India 2006. The main objective of this study is to ascertain the perceptions and experiences of women regarding menstruation. Methods. An integrated qualitative and quantitative study on reproductive health of Indian women was conducted in two primary health centre areas of rural north India. Present study reports on the perceptions of 1205 women regarding various aspects of menstruation. Major source of information about menarche /
menstruation was friends/relatives (72 per cent). Mean age at menarche was ~15 years. Very few women (0.4 per cent) used sanitary napkins. Majority of women had strong beliefs about effect of diet on menstruation. Women in rural north India still hold traditional beliefs regarding menstruation. Provision of a balanced and healthy family health education package to all girls is recommended.

Sharma .N (2001) observed on menstruation in an urban slum in Delhi, India. This study attempts to understand the experience of menstruation in the socio-cultural context of an urban Indian slum. Observations were gathered as part of a larger study of reproductive tract infections in women in Delhi, using both qualitative and quantitative methods. The qualitative phase consisted of 52 in-depth interviews, three focus groups discussions and five key informant interviews. In the quantitative phase inferences were drawn from 380 respondents. Mean age at menarche was 13.5. Onset of menarche is associated with physical maturity and the ability to marry and reproduce. Menstruation is associated with taboos and restrictions on work, sex, food and bathing, but the taboos observed by most of the women were avoidance of sex and not participating in religious practices. There is a clear need to provide information to young women on these subjects in ways that are acceptable to their parents, schools and the larger community, and that allow them to raise their own concerns.

2.4.2. Pregnancy and related risk factors and determinants

Sharma V.P. (1998) Studies on malaria during pregnancy in a tribal area of central India (Madhya Pradesh). This preliminary study was undertaken to determine the effects of malaria infection in a group of 456 pregnant women with or without fever. Only 96 women were found infected with malaria, of which Plasmodium falciparum accounted for 64 per cent of the detected parasites, while P. vivax for the remaining 36 per cent. There were no instances of cerebral malaria or death however; one abortion and four still births were recorded among 38 primigravid women. Anemia was commonly present in most of the women (80 per cent). Failure to clear P. falciparum parasitemia after a chloroquine regimen (25 mg/kg of body weight) was commonly observed. Poor response to chloroquine suggests the need to change the drug policy.
Cleland et al., (1996) conducted a sample with 3,600 mothers with at least one pre-school age child was interviewed in detail about obstetric problems associated with their last confinement. 10 per cent reported one or more symptoms of pre-eclampsia; and 8 per cent reported symptoms of potentially life threatening conditions during delivery, 10 per cent reported excessive bleeding, loss of consciousness or convulsions and an additional 17 per cent reported symptoms of infections.

Anuragini Sharma (1992) observed Health profile of pregnant adolescents among selected tribal populations in Rajasthan, India. Among primitive tribal communities in India, girls are traditionally married immediately after attaining menarche. In the present study all adolescent girls in the second and third trimesters of pregnancy from 15 randomly selected villages of 4 tribal development blocks of Udaipur district (South Rajasthan State, India) were studied. The date was analyzed with reference to parity, anthropometry, anemia, and other dietary deficiencies. A total of 54 adolescent girls (13-19 years of age) were included in the present study. Of this 59 per cent were found to be primigravidis 30 per cent were pregnancy for the second time and two girls for the pregnancy of 3rd time. Majority, were illiterate 51 per cent people suffering from moderate to severe anemia. The study highlights are health profile and needs or pregnancy adolescence among tribal population in a drought-affected area in India.

2.4.3. Reproductive tract infection’s

M. Hemantha Meitei (2002) carried out a study on awareness and prevalence of reproductive tract infection in north-east districts of India. Reproductive tract infection is a generic term used to cover three types of infections viz. Sexually transmitted disease (and infection), endogenous vaginal infections and infections related to reproductive tract. The current study revealed that the awareness level among both males and females regarding RTI is relatively low in majority of the districts in northeastern part of India; (Hi) sexual intercourse was reported to be the main mode of transmission of RTIs by more number of males than females in most of the districts; and a wide gap between
knowledge and prevalence of RTI in both males and females was observed which was higher among females.

Studies show that the rate of infections as by pap smear programme in general population is as high as 20per cent (cherian et al, 2001). The rate among hospital attending population is as high as 40per cent in some pockets (cherian et al, 1999). The rates from a tribal area of Wynad (general population including tribes also) shows a prevalence of about 10per cent (on going study). A pilot survey in the proposed study area shows a prevalence of about 2.2per cent (data from ECDC, Palakkad, Kalavathy et al, under preparation). The cervical precancer rates in a general population come to about 6per cent (cherian Varghese, 2001). So the rates of RTIs as detected by papsmear programmes differ among different areas and data from a tribal community is really lacking.

Nikhilesh parchure et al., (1999) observed prevalence of self reported symptoms of reproductive tract infection among currently married women in Madhya Pradesh. The present study is based on RCH-RHS survey data carried out in Madhya Pradesh in two phases during 1998-1999. The survey collect data pertaining to awareness about RTI/STI and HIV/AIDS. In the survey a separate section was administered to all eligible women and one male member in the age group of 22-24 from every household to collect information on awareness about RTI, STI and HIV /AIDS, source of knowledge, its mode of transmission and curability, presence of symptoms of RTI and treatment seeking it symptoms are present in Madhya Pradesh a total of 41254 eligible women were interviewed in 45 district in Phase –1 and Phase 2 during 1998-1999.

2.4.4. Sexually transmitted diseases

Karabi Sinha (2010) carried out a study on Safer Sexual Practices and HIV Screening Behavior among Rural California American Indians. This paper reports on safer sexual practices and HIV screening behavior among rural California American Indians. Thirteen Indian health clinic registries formed the random household survey sampling frame (N=457). Respondents who practiced safer sex were younger, not married, reported lower annual income, changed sexual
behavior in the last 12 months, were not in a monogamous relationship, and had a higher perception of wellness. Those who were tested for HIV were younger, had at least a high school education, consumed alcohol, had significantly higher suicide ideation and attempts, changed their sexual behavior in the last 12 months, and reported a history of sexual abuse as a child and adult. Identifying predictors of unsafe sexual practices and non-HIV testing tendencies help to plan for measures to protect the population from this devastating disease.

Manoj Kumar Bhondeley (2009) carried out a study on Seroprevalence of sexually transmitted viruses in the tribal population of Central India. The main objective of the study is to determine the seroprevalence of human immunodeficiency virus (HIV), hepatitis B and C viruses (HBV, HCV), and herpes simplex virus type 2 (HSV-2) in the tribal population of central India. A community-based cross-sectional survey was carried out in the tribal population of Jabalpur district. Blood samples were drawn from 326 patients with sexually transmitted infections (STIs) and 526 randomly selected adults. These were tested for HIV, HBV, HCV, and HSV-2 using commercial ELISA kits. The prevalence of IgG antibodies to HSV-2 was 20.8 per cent in STI patients against 2.9 per cent in the general population. HCV prevalence was 3.9 per cent in STI patients and 4.6 per cent in the general population. No HIV infection was found in the study population.

Rao (2009) estimated the prevalence of sexually transmitted disease syndromes in tribal population of central India. A community-based cross-sectional study was conducted to discover the prevalence of STD syndromes in tribal population of central India. All married men and women in the age group of 15-49 years from selected villages were enumerated by house-to-house visit. Individuals were interviewed using pre-coded, pre-tested questionnaires about STD syndromes of urethral discharge, vaginal discharge, dysurea, genital ulcer, inguinal swelling, scrotal swelling and lower abdominal pain. Of the 2568 individuals interviewed, 326 (12.7 per cent) had at least one STD syndrome. The prevalence was almost double in women (17.6 per cent) than in men (8.4 per cent). The highest prevalence (16.2 per cent) was observed in the age group 30-34 years.
followed by 35-39 years (14.7 per cent). The commonest syndrome in women was vaginal discharge (16.0 per cent) while in men the commonest syndrome was dysurea (1.8 per cent).

Richard Taylor (2005) carried out a study on Rural Indian tribal communities, an emerging high-risk-group for HIV/AIDS. A nested cross sectional study was undertaken as part of the on going Reproductive and Child Health Survey. A total of 5,690 participants age 18-44 were recruited for this study. Data were obtained through home interviews, and focused on socio-demographics, knowledge, attitude and behaviors regarding sexuality, HIV/AIDS and other STDs. The study revealed that Lack of awareness, permissiveness of tribal societies for premarital or extra-marital sexual relationships, and sexual mixing patterns predispose these communities to HIV/AIDS and STD infections. There is a dire need for targeted interventions in order to curtail the increasing threat of HIV and other STDs among these vulnerable populations.

2.5. STUDIES RELATED TO FERTILITY AND FAMILY PLANNING

India incorporated family planning as a part of its development plans as early as in 1952. In fact family planning has been recognized a pre-requisite for a broad based development strategy for improving the quality of life of an individual or community. In spite of all the efforts, the family planning programme has not been welcomed by all, and more so, by the backward sections of society. Indian tribal, or adivasis, fertility levels historically featured the highest fertility in India’s sub-national populations.

Roumi Deb (2010) Knowledge, Attitude and Practices Related to Family Planning Methods among the Khasi Tribes of East Khasi hills Meghalaya. The study was undertaken to know the extent of awareness, attitude and practices of family planning method among 1560 ever-married Khasi women aged 15-49 years from all the seven blocks of East Khasi Hills. Among Khasi women the knowledge of family planning methods is not much widespread, more than fifty percent of the women were adopting any family planning method. Majority of the women who were adopting any family planning method belonged to age group 25-
35 years. However, there is a gap between the knowledge and the practice of contraception among these women.

Ravendra K. Sharma (2009) observed Contraceptive use among tribal women of central India. The utilization of Reproductive and Child Health (RCH) services are comparatively low among scheduled tribes (ST) of this region. The paper provides a comprehensive contraceptive use status among ST of Central India. The knowledge of family planning method is almost universal and most of the tribal women are aware of at least one modern method. However, only 42 percent of them were current users of family planning methods, 32.7 percent were using female sterilization and 1.8 percent male sterilization. This shows that about 82 percent of current users in tribal population were sterilization users only. Bi-variate results show that use of sterilization increases with age of women, marital duration, female literacy, and number of surviving male child.

Attitude of Spouse towards Family Planning a Study among Married Men and Women of a Rural Community in West Godavari District, Andhra Pradesh conducted by Varma et al. (2008) The fertility data indicate that there is a need to change to scenario of contraception use in India. A considerable proportion of people reported that their spouse encouraged to adopt family planning. And very few people reported that their spouse opposed and discouraged the use of family planning methods. There was no trend of association with attitude of spouse with age and caste of respondents. But literacy and occupation had influence. In addition, majority of respondents opined that female sterilising (tubectomy) was a better permanent sterilization. No apparent association was seen between this attitude and characteristics of the respondent. Family planning through contraception tries to achieve the principal objective to have only the desired number of children. The study warrants improving the attitude of the people, in favour of family planning and special strategies are to be planned to improve the involvement of men.

Sathiya Susuman (2006) observed a study on Son preference and contraceptive practice among tribal groups in rural south India. Data were collected from a household survey of 398 currently married women of
reproductive age group (15-49) from four taluks in the Nilgiris District of rural Tamilnadu are selected with respect to the different tribal communities. The use of contraceptive practice by tribal groups in rural areas is strongly linked to individual and household socio-economic and demographic variables. Findings show that the expectation that a son will provide financial support in old age is strongly associated with the response that a son is important. Son preference is slightly more among the tribal women, particularly among the users of spacing method who are more among those preferring the sons. Some of the socio-economic variables like education of husband and occupation have shown negative influence on higher fertility and positive influence on contraceptive use among the tribal women.

Reddy (2001) made a study on consanguinity and reproductive health among Kurchias, a tribal population of Kerala. The study revealed that the age at marriage was less among the women of consanguineous marriages than the non-consanguineous marriages. Low fertility, live births and fertility, high prenatal, postnatal mortality rate and hereditary diseases were observed among consanguineous couples than non-consanguineous couples. The congenital malformations were observed only in consanguineous marriages. Among consanguineous marriages, the disease prevalence, prenatal, postnatal mortality and morbidity were very high due to the increase in homozygosity and enhanced risk of hereditary disease.

Susmitha et al., (1998) studied about Anthropo-Demographic characteristics among the caste and tribal groups of central Himalayas-fertility, child mortality and family planning. Statistical tools mainly multiple regression have been utilized to study the impact of various variables on fertility, infant and child mortality and usage of family planning methods among the caste groups of Kumaun and the Bhotia tribal groups. Child mortality, age at marriage (wife), usage of family planning methods and educational level of wife were the variables having an important bearing on the number of live births per ever married women / fertility. It was seen that for infant and child mortality, the variables were fertility, occupation of wife income and present age of wife. The determinants of
usage of family planning methods were educational level of husbands, number of surviving children and income.

Mutharayappa (1998) conducted a comparative study between Jenukuruba and Kadu Kuruba Tribes of Karnataka to assess the “fertility and family planning methods”. The study revealed that fertility was higher among Kadu Kuruba tribe than Jenu Kuruba tribe. Women who married at the age of 16 years. The differences between two tribes in terms of fertility levels in each age group were large. The practice of induced abortions were common among them. Most of the women who terminate pregnancy either before or after marriage, use only indigenous medicines. Among Jenu Kuruba tribe more number of women were using modern method of contraceptives. The women who were using indigenous medicines to prevent pregnancies had lower fertility.

Sikdar (1998) made an attempt to study the impact of education on awareness of family planning programmes among the santal women in the Kalyani block under district of Nadia, West Bengal. The study reveals that the santal women used to prefer Oral pill only as a method of family planning. Main reasons behind such liking is, their unawareness about different family planning methods and lack of proper education. But basic education as well as health and sex education can change this picture. Therefore, information education and motivation (IEM) package is the integration of reproductive health with the family welfare programme which has now come to acquire a new dimension. By this IEM programme santal women can understand that there is minimum risk factor in case of other family planning method and all the process are as some as natural.

Sengupta et al., (1998) studied that effect of place of residence, fertility and mortality among the Ahom of Assam. The study revealed a close relations between place of residence and both fertility and mortality. In rural areas mean age at menarche was comparatively higher than in the urban area. The mean age at marriage of the rural Ahom women was family early (18.58±0.34 years) in comparison to that of the urban Ahom women (20.06±0.39 years) and the difference between the two values was statistically significant (t value = 2.86).
Jain (1997) carried out a study on Family Planning use and its Determinants among Fond Tribe of Madhya Pradesh in Jabalpur District. A survey was conducted in 34 predominated Gond Tribe villages of Kundan Block of Jabalpur district. In all 2623 Gond households were visited in these villages and 2019 currently married women in reproductive age were interviewed. The analysis of data has shown a fairly higher acceptance of sterilization (31.3 percent) in the study population. But of them have adopted sterilization after having three or more children. Thus, the higher acceptance of sterilization in Tribes may be due to monetary incentives provided by Government for sterilization acceptors.

Sengupta et al., (1996) described and analysed “Menarche and menopause among the Ahom women of Dibrugarh”. This study found that the on set of menarche and mean menopausal age of Ahom (46.32±0.27 years) and other population of Assam indicated comparatively higher mean menopausal age in the former population. The present Ahom sample was not only akin to other Mongoloid groups but also showed close (statistical) affinity with several Caucasian (castes) groups of high social status.

Vineeth Sharma et al., (1993) studied the status of women, fertility and family planning among tribals in the Udaipur district of Southern Rajasthan. It was observed that almost all (95.4 per cent) the respondents were illiterates. More than 92 per cent of them were found to be suffering from moderate to severe anemia and almost 33 percent of them showed evidence of varying degrees of vitamin A deficiency. None of the interviewed women had ever availed antenatal care and most of the deliveries were conducted by untrained traditional birth attendants at home. Most within the family. Similarly, almost all of them said that they had not inherited anything (and were not likely to get anything) from the ancestral property of their parents. Both these factors point to a degradingly low status of women in this society and it was surprising to note that even in matters like family planning, the method of contraception to be adopted by the couple, utilization of antenatal care services etc., which were all known to have a direct effect on the health and well being of women. The women had to depend on the decisions of their husbands or even their mothers-in-law.
Puri (1992) conducted a study on Breast feeding among tribals as an aid to fertility control in Udaipur district of Rajasthan. Data was collected from about 200 randomly selected tribal females. The tribal females were found to experience at least one-and a half years of lactational amenorrhoea. Both socio-cultural practices and economic compulsions tend to promote and prolong breast feeding among the tribals. Thus, breast feeding was a major factor which (some what unknowingly) helps lengthen the relatively infertility period among these communities, and perhaps has a major role to play in being an effective natural contraceptive for these women who shy away from most of the modern contraceptive techniques available today. Keeping in view its practical relevance, there is a need for family planning programme managers to intensity their educational efforts to further support and reinforce breast feeding practices. The mean birth interval following abortion was found to be short (1.2 years) followed by the interval following infant loss (1.6 years). The birth interval between two live births was found to be the longest (2.5 years).

Jesurathnam Devarapalli (1992) observed the Maternal care and obstetric practices among the Konda dora tribe in the agency areas of Visakhapatnam district in Andhra Pradesh. The various pregnancy related taboos and cultural practices observed by the Konda dora women have a significant effect upon the health of the mother and child. Prenatal practices encouraged included giving the pregnant women light work in good practice. The practice of barring the placental contents and bathing the mother with turmeric paste and hot water immediately after delivery as also the application of Kang oil were other obstetric practices. The Konda dora women preferred her own house to a hospital for delivering her baby. Feeding the new mother with chilli powder as an important constitute of her food for a few days after delivery was a harmful practice. The observance of post partum conjugal taboos for a period of two years was another good practice which helps to maintain adequate spacing between successive pregnancies, ensures a longer period of lactation as well as the health of the mother and child.
2.6. NUTRITION EDUCATION

Traditionally, nutrition education is defined as the process of teaching people how to acquire, prepare and consume foods that will promote good health (Gussow and contento, 1984). Albanese (1971) defined nutrition education as a means of translating nutritional requirements into food and adjusting the food choices to satisfy nutritional, cultural, psychological and economic needs.

Uttara Sing (2013) conducted a study on one hundred twenty non-insulin dependent diabetic subjects from Punjab Agricultural University and Civil Hospital of Ludhiana. The selected subjects were divided into four groups, viz. Group I, II, III and IV having thirty subjects each. The nutrition education was given for three months after fifteen days interval to the subjects of Group II, III and IV through individual and group contact and gain in nutrition knowledge was assessed after the study. The anthropometric measurements of the subjects were measured. Significant improvements were seen in weight, BMI, MUAC and TSFT of the subjects in Group II, III and IV after study. There were also a significant increase (P<0.01) in the knowledge, attitude and practice score obtained by the subjects in Group II, III and IV and a non-significant increase (P<0.01) was seen in knowledge, attitude and practice score of the subjects in Group I. Therefore, it can be reported from the results that nutrition education significantly improved the nutritional status of the diabetic patients. So the objective of the study was planned to assess nutritional status of the non-insulin dependent diabetics.

Zalilah Mohd Shariff (2008) conducted a study to determine the changes in knowledge, attitude and practices of primary school children after receiving a nutrition education intervention for 6 weeks. A validated questionnaire was used to assess knowledge, attitude and practice at pre- and post-intervention. A total of 335 students from four primary schools were assigned to either intervention or comparison group. The intervention group received nutrition education taught by trained school teachers while the comparison group received the standard Health and Physical Education curriculum. A generalized linear univariate procedure was used to compare changes in knowledge, attitude and practice scores between intervention and comparison groups with ethnicity, weight-for-age, mother’s and
father’s employment as confounding factors. There were significant increments (p<0.001) in the post intervention mean scores of knowledge (2.17 vs. 0.47), attitude (1.40 vs. 0.32) and practice (0.87 vs. -0.10) items for the intervention group compared to comparison group. The changes in knowledge (F=17.72, p<0.001), attitude (F=6.41, p<0.05) and practice (F=15.49, p<0.001) in the intervention group were maintained even after adjusting for confounding factors. The findings support the importance of providing children with nutrition knowledge to promote healthy dietary behaviors.

The micro nutrient and health (MICAH) programme in Malwai, addresses anemia in children under five and pregnant women through an integrated approach using multiple strategies. Iron/folate supplementation dietary diversification (increased access to animal protein), primary health care (malaria control, deworming) and nutrition education. The results indicate that the haemoglobin values among women and children were increased by increasing dietary intake of iron and addressing non dietary causes of anemia. The prevalence of hookworm was decreased and malaria was remained unchanged. The author attributes that community level food fortification, initiated in 2001, is expected to be sustainable.

The effect of nutrition and health on Knowledge, Attitude and Practices among rural women for prevention of anemia was carried out in Chandigarh. A total of four education sessions were organized to cover all aspects of anemia. Three months after education intervention, the knowledge and attitudes were significantly higher in intervention group compared to control group. Intake of iron rich diet and iron tablets was apparently higher in intervention group compared to control group but the difference was not statistically significant. The author’s experience in the study indicated that involving only women in nutrition education might not solve the problem, as other family members may not accept their suggestions. Therefore, to bring change in the practices, all the family members need to participate in the nutrition education activity. Along with improved production, availability and access to foods at affordable prices, a coordinated communication strategy is required to improve anemia prevention practices in the community( Kaur and Singh, 2001).

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As a part of nutrition education component in a community nutrition education intervention trial in south India, seeds of amaranth and saplings of drumstick and papaya were distributed in 12 intervention villages to mothers of Preschool children. The positive outcome of distribution was found to be an increase in the awareness of the significance of vitamin-A rich foods in the children’s diet. Mothers reported the home gardening as the second most valued benefit among the services they received. The authors believe that initiative of home gardens in rural India. One important way to facilitate rapport between communication and nutrition workers and also to refer consciousness about development and preventive health among them (George.et.al.1994).

A food based approach to nutrition improvement and household food security in Vietnam was studied with an emphasis on two components nutrition education of pregnant women and women with children under 5 years and promotion of home gardening. Particularly in vitamin A rich foods. After two years of intervention of, the mothers knowledge score increased by 26 percent with an associated 32 percent of mothers who used vegetable weaning foods. The prevalence of xerophthalmia decreased from 1.01 -0.09 percent and Bitots spots from 0.04- 0.09 percent (Tu Ngu et.al.1994)

The NIN undertook a study in 1990 to assess the feasibility of home gardening strategy coupled with nutrition education to promote production and consumption of carotene rich foods and to determine the impact on the knowledge, Attitude and practices of mothers of preschool children and vitamin A deficiency. A evaluate after 3 years of intervention, the percent of household with home garden rose from about 10-65 percent, Eighty percent of the households who received the seeds and seedlings, reported that they consumed the produce more than 3 times during each season. There was a significant important in the awareness of the mothers regarding VAD signs, consequences, its prevention and control (vijaya raghavan et.al.1995)
2.7. INDIGENOUS HEALTH PRACTICES

Ethno botanical studies conducted in many places in India reveal new and interesting information on natural resources that are traditionally used by tribes for trading diseases.

Survey carried out in tehsil budhal of rajouri district of J& K by Anwar shah et.al 2012 on gujjar and bakerwals tribal communities about the ethno medicines used. Most of the ethno medical knowledge about the local uses of plants was poorly known by the locals of this hilly area because of poor documentation from the elders and confidentiality, but the study could enlighten thirty medicinal plants used for the treatment of various diseases from various parts of the plants.

Monali Goswami1 et.al 2011 makes an attempt to focus on the traditional medicine used by the Bhumijas of Baleswar for reproductive health problems and fertility control. The study reveals that eighteen plant species belonging to fifteen families are being used as traditional medicines to cure different reproductive health problems. The village medicine men, who have a good knowledge about the herbal medicines usually treat the patients. Many elderly persons of the village and the experienced women who attend the deliveries are also aware of the importance and use of such herbal medicine. Various plants and plant-parts are used for the preparation of medicines.

Raj Pramukh (2006) conducted a study on indigenous knowledge and its implication in tribal health and disease among the tribals of eastern ghats , explanations offered in this domain are mostly divinatory in nature implying the divine wealth as causative of all diseases.

Sangamithra.S. Acharya (2005) conducted a study on indigenous medicinal substances and health care on paite tribes of Manipur and with special focus on utilization of tribal indigenous medicinal substances is significant for devising comprehensive programs, Nearly all women respondents indicated their preference towards indigenous medicine or home made remedies and traditional healer at the primary stage of their illness. Thus scope of indigenous medicine
becomes important, peoples belief in indigenous medicine can play a vital role in implementing government programmes on improving and promoting Indian system of medicine in rural areas and at the same time recognizing the local tribal medicine.

Gopal.S.Singh (2004) conducted a case study on tribal people of sangla valley in kinnaur district of Himachal Pradesh have indigenously been conserving natural resources since generation and were well aware regarding environmental protection. Socio cultural diversity and environmental complexity have favoured tribal people to develop symbiotic relationship with the locally available resources and precarious nature. such conducive practices have helped the people for better pursuit of livelihood in particular and management of the entire water shed/landscape in general. Economy of the people could be improved by empowering the efficiency of the locally available resources encouraging small scale industries, increasing market values of medicinal plants and food items, sensitization of people for participation in development planning and awareness building in indigenous based packages.

According to Ravi Shankar (1997). Ethnobotanical studies conducted by professional ethnobotanists reveal that there are about 1000 plant species of ethnobotanical value. This reveals that the traditional knowledge of tribal communities on ethnomedicine acquired by trail and error over thousands of years could easily shorten the number of plant species empirical screening from 6000 plant species to 1000 plant species of specific ethnobotanical use. This is the result of careful observation, inheritance and starting of tribal knowledge over generations by tribal communities.

Jeeva et.al (1997) stated that cultivation of medicinal plants is helpful for improving tribal economy and for utilization of medicinal plants.

Pushpadhar gogoi and Kumar (1997) pointed out that traditional knowledge of prescribing herbal remedies at home is handed down from generations and there are applied even today. For household remedies, they used
to consume and cultivate some specific plants and maintain a household garden for medicines.

According to Daisy francis (1996) who reported some of the herbal medicines which are used in severe gynaecological illness are for

Amenorrhea- Papaya in any form, Decoction of root bark of Ashoka with sounf, Aloevera leaves inner flesh along with jaggery for 5 days.

Dysmenorrheal-Aristam prepared of hibiscus Rosasinensis (Shoe flower) is taken in any form. Buds or flowers boiled in milk are taken on empty stomach.

Leucorrhea-Pulp of Aloevera with jaggery or sugar candy on empty stomach is recommended. Aristam prepared of Hibiscus Rosasineasis, leaves of drum stick in any form.

Menorrhagia-Lausina alba(Tel. Gorintaku) is used for menorrhagia. grind the leaves together and make a pill. One tablet in the morning and one in the evening on empty stomach for one in the evening on empty stomach for 3-7 days as per the need.

Ansari and ali (1997) reported that calotropis (as clepiadia cease) root back is used as an antidote for snake bite.

Narayana (1997) conducted a study on Agar oil extraction which is an odoriferous volatile body of oily nature extracted from the wood of the plant-Aquilaria agallocha Roxb, family – Thymelaeaceae. The oil has an antidote for snake poison.

Ramachandran (1997) in his ethanomedical plants from coimbatore district, Tamilnadu, reported that medicinal plants are rubia cardifolia (Rubiaceae) as an antidote for snake bite and xanthium indicum (Artceaceae) for insect bite.

Shankara and sridhara (1997) collected information from Tribal local healers who treat successfully the skin disorders. In this individual capacity some of the recipes mentioned in Kakandeshwarantanta (1100 AD) have also been includes as they are found to be useful.
Venkataramana et.al (1996) found some important medicinal plants used by tribals i.e Yanadi, Yerrukala and vakkals live in villages around Puttur and Nagari hills of Chittoor dist where they are using 20 species of medicinal plants by 16 families to cure several ailments as diabetes, Jaundice Kidney stones, Skin Diseases and bone fractures etc.

Jain and tarafder (1970) investigated that nelumbo nucifera plant is considered to be useful by tribals (sandals) in strangulation of intestine. The flowers and filaments are considered to be cooling and astringent. The flowers are used in diarrhea, Cholera, Fever and diseases of the heart and liver.