

**SOCIO- CULTURAL BARRIERS IN THE ADOPTION OF
SAFE REPRODUCTIVE AND CHILD HEALTH PRACTICES:
A STUDY IN A TRIBAL BLOCK OF UTTARAKHAND**



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ACKNOWLEDGEMENTS

I express my sincere gratitude to Dr. Madhu Agarwal, Regional Director, NIPCCD, Regional Centre, Lucknow for her constant guidance throughout this study. Her experienced valuable suggestions have facilitated the study to progress without many stumbling blocks.

I gratefully acknowledge the help and support extended by Dr. Aruna Narayan, General Manager, NRHM, Govt. of U.P., Dr. V.K. Srivastava, Professor and Head, Dept. of Social and Preventive Medicine, King George's Medical College, Lucknow and Dr. Surendra Singh, Professor and former Vice Chancellor, Kashi Vidyapeeth, Varanasi for their valuable advice and relevant guidance throughout the course of the study.

I shall remain indebted to Dr. S.P. Jain, Former Regional Director, NIPCCD, Lucknow and Former Director NIRD, Hyderabad for his remarkable guidance which helped me to complete this work with considerable ease.

I must take this opportunity to specially thanks to the faculty members of NIPCCD, Regional Centre, Lucknow for their help and support they provided to me when I was in need and who always feels pleasure in discussion.

Words fall short to express my acknowledgement to the sincere efforts and dedicated hard work rendered by the Ms. Ankita Tewari and Mr. D.D. Rekhari, the project team, without them the study would not have been possible.

At the end, I express my sincere gratitude to the ICDS functionaries, Govt. of Uttarakhand and the Respondents of the study for their cooperation during the study.

(Mukesh Kr. Maurya)

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ABBREVIATIONS

AIDS	Acquired Immuno Deficiency Syndrome
ANM	Auxiliary Nurse Midwifery
AWC	Aanganwadi Centre
CHC	Community Health Centre
HIV	Human Immuno Deficiency Virus
ICDS	Integrated Child Development Scheme
IFA	Iron and Folic Acid
MOHFW	Ministry of Health and Family Welfare
NFHS	National Family Health Survey
NHED	Nutrition and Health Education
NRHM	National Rural Health Mission
ORS	Oral Rehydration Salt
PHC	Primary Health Centre
RCH	Reproductive and Child Health
STD	Sexually Transmitted Disease
TT	Tetanus Toxoid
WHO	World Health Organisation

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INTRODUCTION

The tribal population forms 8.2 percent of the total population of India. About 84.33 million persons have been enumerated in the country (excluding Jammu & Kashmir) as Scheduled Tribes (2001 census). These tribal groups inhabit widely varying ecological and geo-climatic conditions (hilly, forest, tarai, desert, coastal regions etc.) in different regions throughout the country. They are distinct biological isolates with characteristic cultural and socio-economic background. Tribal groups are homogeneous and culturally rich in traditions. They have their own magico-religious health care system since time immemorial. The prevailing health care system has been found not only inadequate but also primitive in nature.

Health care practices have been considered vital for the development and growth of a society. Any society having good health practices are likely to have more useful and productive human resources as compared to a society where health care is minimal or nonexistent. Another feature of health care is that it varies from society to society and is largely governed by prevailing beliefs and practices observed by the people. Thus the human resources in a society having modern health care practices are likely to be more productive as compared to societies where health care is based on beliefs, customs and practices. It has been observed by Sociologists and Anthropologists that in most of the tribal societies the health care is generally linked to their cultural practices which, at time, are too primitive to bring about required change in the health status of the people. Since prevailing beliefs and practices are found to be intimately related to the treatment of various diseases, it is necessary to make a holistic view of cultural dimensions of health practice in a community. In most of the tribal communities, there is a wealth of practices related to health. An understanding of these practices in socio-cultural context is likely to be rewarding and could be helpful in tuning up the care practices suiting to their needs.

Maternal and child care are an important aspect of health care practices which are largely neglected among the tribal groups. The whole body of data on

traditional medical beliefs and practices which has been gathered by Anthropologists in terms of cultural values and social beliefs, and their knowledge about the dynamics of social stability and change provide useful key to many of the problems encountered in public health programmes.

Adolescent girls, pregnant and lactating women constitute a very important demographic component of a society. This segment is the most vulnerable from the health viewpoint, particularly in a developing country like India. The tribal communities, in particular, are more susceptible to health related problems, largely due to ignorance, poor socio-economic conditions, non- accessibility to health care facilities and deep-rooted traditional beliefs and practices. The combined effect of these factors is usually reflected in the overall health status of the community as a whole. It is, therefore, important to find out the status of health care practices in the above stated sections of the tribal societies. Such informations can enrich the knowledge of concerned health providers and administrators not only about the state of health status of the neonates and pregnant and lactating women but also other significant health related aspects of tribal societies which, in turn, can provide useful leads for intervention in designing appropriate programmes aimed at improving general health of infants and pregnant and lactating women. The present study, is therefore, directed to analyze issues related to the socio- cultural practices in reproductive health and child care practices of the adolescent girls, pregnant and lactating women among the tribal groups.

On the basis of the studies of cultural values and social norms, the Anthropologists were in a position to explain to health personnel and administrators that how these traditional beliefs and practices conflicted with western medical assumptions; how socio-cultural factors influenced health, diseases; how cultural factors took care of health and cured illness; and how health and diseases are just aspects of total cultural patterns, which change in the company of broader and more comprehensive socio-cultural change.

Problems of health and illness are inextricably related to physical, behavioural and environmental factors. Each of these factors contributes to the kinds of problems encountered in medical management. The growing recognition of the value of the behavioral sciences to medicine and public health during the past few years has brought about diversified studies along the socio-cultural and

psychological aspects of community health. How these forces are related to the acceptance of health measures being introduced from time to time under various programmes of Government of India and State Government will also be useful in effectively improving the health status of tribal people.

India, about 30 million women experience pregnancy and 27 million have a live birth (MOHFW, 2003c) each year. Of these, an estimated 136,000 maternal deaths and one million newborn deaths occur. In addition, millions more women and newborns suffer pregnancy and birth-related ill health. Thus, pregnancy-related mortality and morbidity continues to take a huge toll on the lives of Indian women and their newborns. According to National Family Health Survey (NFHS-2), conducted by Government of India, the causes of maternal mortality also remain more or less the same. Not only does pregnancy and childbirth continue to be potentially hazardous to many women, but motherhood comes at too early an age for far too many women. About one-third of women are married by the age of 15 years, and two-thirds by 18 years. The median age at first birth is 19.6 years. Thus, half of all women experience childbirth by the time they are 19 years, usually before physical maturity is obtained. Results also show that mothers who are younger than 20 years old at the time of first birth, were associated with a 1.7 times higher neonatal mortality rate and 1.6 times greater infant mortality rate, than were mothers giving birth between 20-29 years.

Apart from the above factors, poor access to health services and socio-cultural factors may also have role in determining the health status and nutrition among pregnant and lactating women. Many tribal communities live in remote inaccessible areas which are far away from urban areas and thus away from availability of health facilities. This may have an adverse affect on the health of the population.

Although different studies have been conducted to understand the status of health in tribal societies, a few studies have focused specifically on the socio-cultural practices pertaining to the maternal and child care among the tribal people. An attempt has been made to review the available literature in the following chapter.

REVIEW OF LITERATURE

As already has pointed out, the tribal societies have been studied by Anthropologists and Sociologists in a comprehensive way. There are hardly any spheres of life of the tribals which have been left untouched. While a large number of studies have been conducted on cultural aspects, studies on aspects such as status of women relating to their socio- cultural problems, their economic rights, their participation in management, their access to employment, food, health, etc. have also been conducted. However, issues related to the health of tribal women have not been covered adequately. There are only a few studies on the status of tribal women in India (K. Mann, 1987; J.P. Singh, N.N. Vyas and R.S. Mann, 1988). Studies on tribal women are important because these problems differ from a particular area to another owing to their geographical location, historical background and the processes of social change (A. Chauhan, 1990). For this, there is a need for proper understanding of their problems specific to time and place so that appropriate programmes can be made and implemented. It has been emphasized that there is a need for undertaking a region-specific study on the status and role of tribal women which alone can throw up data that will make planning for their welfare more meaningful and effective (K.S.Singh. 1988)

Tribal woman occupies an important place in the socio-economic structure of her society. The Dhebar Commission Report (1961) mentions that the tribal women is not drudge or a beast of burden, she is found to be exercising a relatively free and firm hand in all aspects related to her social life unlike in non-tribal societies.

However, after a comparative analysis of the various indicators (political organisation, religion, ritual practices etc.) among the different tribes of India, it has been observed that the status of tribal women is comparatively lower than that of tribal men. The status of tribal women has gone from bad to worse as a result of the impact of social change which has affected the social structure of tribal society (Chauhan, 1990).

Health Status of Tribal Women

Efforts have been made to collect available literature on the health studies among different tribal women in the light of several parameters i.e. marriage practices, age at marriage, fertility, mortality, life expectancy at birth, nutritional status and health, child bearing and maternal mortality, maternal and child health care practices, family welfare programme, sexually transmitted diseases and genetic disorders. It may, however, be mentioned that health related studies found to be limited. Most of the available studies are fragmentary in nature without an adequate sample size and standard methodology. The present review has carried out comprehensive health related studies among different tribal groups namely Muria, Maria, Bhattra, Halba of Bastar district, Madhya Pradesh, Jaunsaris of Jaunsar Bawar, Dehradun, Kutia-kondhs of Phulbani district, Orissa, Santals of Mayurbhanj district, Orissa and Dudh Kharies of Sundergarh district, Orissa and Dudh Kharis of Sundergarh district, Orissa. The research findings of all the available studies are discussed in the context of the following parameters:

Marriage Practices

India is characterized by the presence of a large number of endogamous casts, tribes and religious communities with different types of marriage practices. The pattern of marriages in India is largely governed by three important regulations, namely a) Endogamy (marrying within the group of birth b) Exogamy (marrying out) and c) consanguineous or sapinda marriage. (Basu, 1985).

In some tribal communities, cross-cousin marriages are preferred and practiced which has proved to be beneficial to the females in terms of care and treatment at husband's place. It has also avoided high bride price/dowry and maintenance of the household property. Consanguineous marriages may, however, result in an increased probability of abortions, miscarriage, still births, neo-natal deaths, infant and juvenile deaths physical and mental defects susceptibility to infections diseases etc. On the other hand, some of the tribes in India practised polyandry because of less number of women available for marriage. e.g. Jaunsaris of Jaunsar-Bawar region of Uttarakhand.

Age at Marriage

The age at which a girl is married generally depends on social values of a particular society. Among the tribals, virginity is not very much valued. Many of the tribal societies are lax towards pre-marital sex relations which were considered as training in the art of love and sex life and often ended in marriage (Vidyarthi and Rai, 1977). Jaunsaris of Jaunsar-Bawar, Dehradun is a polyandrous tribe and they follow the custom of child marriage as a part of their cultural practices which is still prevalent among them. Studies have shown that 33.8 percent of the Jaunsari females got married before or at 8 yrs, 29.70 percent in the age group 9-15 yrs, 30.3 percent in the age group 15-20 years and the remaining 5.6 percent got married above the age of 20 yrs. (Basu, 1993)

Fertility and Mortality

Studies on fertility and mortality trends among the tribal population of India have been found to be fragmentary and isolated. A limited number of studies are available on infant mortality while hardly any study is available on maternal mortality among the tribal population.

Basu, et al. (1993) in his study of 481 households among the Jaunsaris of Jaunsar Bawar, Dehradun found a crude birth rate of 42.6 per thousand population and infant mortality rate of 79.6 per thousand live births. Polyandry and polygamy were found to co-exist in the study sample. "In the Jaunsar-Bawar, people follow the custom of child marriage as part of their cultural behaviour," Basu has noted in his study. He has concluded that 33.8 percent of Jaunsari females got married before or at eight years, 29.7 percent in the age group nine to 15 years, 30.3 percent in the age group 15 to 20 years. Just the remaining 5.6 percent got married above the age of 20.

Beliefs and Practices during Pregnancy

All societies have traditional beliefs regarding harmful and beneficial foods for women during pregnancy. There are also beliefs regarding the optimal amount of food to be taken during pregnancy for a successful reproductive outcome. These beliefs may or may not conform to the modern biomedical notions about

the proper types and amount of food needed by pregnant women to safeguard maternal nutrition, adequate growth of foetus and safe delivery (Moni, 1994).

Beliefs and practices are linked to culture, environment and education. Pregnancy, in the case of women, is the midpoint of life and death. Therefore there are many such practices, rituals, beliefs and offerings that are meant to protect a mother from influences of evil spirits and supernatural powers.

Different food items are believed to be harmful and beneficial in the various Indian communities. Some beliefs are often associated with the concepts of 'hot' and 'cold' foods. In Indian communities food items perceived as 'hot' are often believed to be harmful for pregnant women and those perceived as 'cold' believed to be beneficial, although in a few communities effects are believed to vary in different stages of pregnancy and also on individual physical constitution. Some 'hot' food items are meat, egg, fish, onions, garlic, papaya, pineapple, mango, and black berry, suran and so on. The general concept of avoiding these food items was that they caused premature delivery, miscarriage, or abortion (Bishnoi et al, 1994).

Some of the 'cold' food items are custard apple, coriander, coconut water, peas, radish, and yoghurt and so on. Some people believe that cold diets could cause cold and cough to the mother and child. Some of these 'hot' and 'cold' food items are believed to be hot in one state and as cold in other state of India. During pregnancy the pregnant women has certain cravings like consumption of baked clay, tamarind seeds, ash, lime, raw rice, charcoal etc.

The choice of cereal seems to correspond to the staple diet of the region or community. For example, in the rice-eating areas, wheat is perceived to be heavy to digest and so is restricted. Alternately, among wheat-eating people, rice is believed to cause 'vaayu' and hence restricted. In ayurveda, the pulses are ascribed the properties of Creating dryness (ruksha) in the body, Increasing gases (vaayu-var dhak), Difficult to digest, leading to stomach upsets.

Hence, it is generally advised that pulses should be avoided during pregnancy or eaten in small quantity, after adding herbs and spices that would reduce the heating and gaseous effect. Adding *methi* seeds (fenugreek) or

seasoning it with garlic or *hing* (asafoetida) would help reduce the gaseous effect. Sour butter-milk is recommended during pregnancy to help digestion. Women also believe that eating cold foods particularly during the last three months would lead to cold labour pains and cause delay in childbirth. Ayurveda recommends eating or drinking hot foods and herbs in order to facilitate labour. Therefore fruits like banana and other cold foods are restricted during pregnancy (Mira, 1996). The health education programmes in India are trying to take cognizance of the popular beliefs regarding food during pregnancy and trying to use innovative means to minimize their negative and maximize their positive nutritional effects. The health educational media will enhance the knowledge status regarding nutritious diets of the pregnant women and ultimately will diminish their wrong concept of food habits (Moni, 1994).

In addition, some socioeconomic conditions, cultural norms, and practices also determine the nutritional status of a family and the women (Leela and Busi, 1995).

A landmark study related to Health Practices and People's Identity among the Gauda tribal community (now the Christian converts) was conducted by D'Souza, 1999. Working from the assumption that the traditional and ritual domain forms one of the most important boundaries of a community's identity, Weber 1963 and Morris 1987, have attempted to look at the identity through the continuity and change in the practices related to pregnancy and childbirth. The paper has examined issues related to women's health, including other aspects of community life as the two were seen to be interrelated. Illness and health practices have been found to be interwoven with the religious, social and cultural practices among the people.

A common practice which has also influenced the health of the women is the age at which many girls are married. In the 1991 Census Report, the percentage of married women age 15-19 years is > 35%. Childbearing during the adolescent years poses significant health risks to both the mother and the infant, especially if the mother is poorly nourished.

Early pregnancy can have harmful consequences for both young mothers and their babies. According to UNICEF, no girl should become pregnant before the age of 18 because she is not yet physically ready to bear children. Babies of mothers younger than 18 tend to be born premature and have low body weight; such babies are more likely to die in the first year of life. The risk to the young mother's own health is also greater. Poor health is common among indigent pregnant and lactating women.

In many parts of the developing world, especially in rural areas, girls marry shortly after puberty and are expected to start having children immediately. Although the situation has improved since the early 1980s, in many areas the majority of girls less than 20 years of age are already married and having children. Although many countries have raised the legal age for marriage, this has had little impact on traditional societies where marriage and child-bearing confer "status" on a woman.

In the present study, an attempt has been made to focus on knowledge, awareness and practices about health and its correlates among tribal women to identify the gaps of knowledge and to suggest a possible plan of action besides pointing out the debatable issues.

THE AREA AND THE PEOPLE

The Study Area:

The present study has been conducted in Chakrata block of Dehradun district of Uttarakhand state, where the Jaunsari scheduled tribe resides.

The Jaunsaries were declared as 'scheduled Tribe' in 1967 by the Government of India and since then, has been enjoying all the constitutional benefits. But the pace of development, particularly in women health and hygiene, has been quite slow and poor due to inadequate awareness and poor health facilities.

UTTARANCHAL STATE

Uttarakhand State was carved out from Uttar Pradesh State as 27th state of Indian Union on 9th November 2000. Spreading over 53,484 sq. km., the State share its boundaries with Uttar Pradesh and Himachal Pradesh and has international boundaries with China and Nepal. Administratively, the State has been divided into 13 districts and 95 blocks with a provisional capital in Dehradun.



The per capita income of the state is approximately Rupees 12,000. Forests being the major source of revenue have an area of 34,434 sq. k. The other main sources of revenue are forest, water, medicinal plants, tourism and pilgrimage. Minerals like Limestone, magnetite, and gypsum are found in abundance.

Agriculture is the main occupation. The main crops grown are rice, wheat, barley, coarse grain, maize and pulses. The State is drained by a number of river systems like Bhagirathi, Alaknanda, Mandakini, Pindari, Tons, Yamuna, Kali,

Bhilangana etc. The demographic profile of the Uttarakhand state is given in following table.

Table 3.1: Demographic Profile of Uttarakhand

Total Population	84,79,562
Male	43,16,401
Female	41,63,161
SC Population (in Lakh)	15.17
ST Population (in Lakh)	2.56
Sex Ratio (Female:Male)	964:1000
Density of Population (per sq. km)	159
Literacy	72.28%

Source: Census of India, 2001.

Table 3.2: Population Data of Dehradun

Name of District	Dehradun
Total Population	1282143
Male	679583
Female	602560
Total S. T	99329
Male	51922
Female	47407
Total Literate	876441
Male	505379
Female	371062
Total Illiterate	405702

Source: Census of India, 2001

Table 3.3: Population Data of Chakrata Block

Name of Block	Chakrata
Total Population	59466
Male	31001
Female	28465
Total S. T	36774
Male	18928
Female	17846
Total Literate	22716
Male	14867
Female	7849
Total Illiterate	36750

Source: Census of India, 2001

THE PEOPLE

The Jaunsari of Chakrata: The inhabitants of Jaunsar-Bawar, located in the Chakrata Tehsil of Dehradun District are called Jaunsaris. These people have been a subject of great interest to the historians, anthropologists and sociologists. After their inclusion in the list of Scheduled Tribes in 1967 a little change in terms of education and social behavior is seen. Majority of the people are still following the old traditions and customs along with some traits of modernity received from neighboring communities. These people along with other people of sub-Himalayan hills from western Kashmir to eastern Nepal are referred to by the generic term *Pahari*. Two major ancestral stocks are generally believed to have contributed to the present *Pahari* population. One, often assumed to have been an early indigenous group, now appears as the *Dom* or low castes. The other, described as an Indo-Aryan speaking group, is presumably more recent and its descendants are called *Khasa*. The *Khasas* are divided into Brahmin and Rajput groups, but interaction is more intimate between them than is usual in the plains (Berreman, 1963), even intermarriage is tolerated. *Doms* are divided into several endogenous groups ranked relatively to one another and associated with occupational specialities.

One might speculate that at one time there were two relatively homogenous groups, the dominant, agricultural *Khasas* and the dependent, depressed artisans or service group known as *Doms*. These were probably groups of different ethnic affinities, but they could have been status groups originating from a common source. Internal differentiation within each may have resulted from subsequent contacts with plains people-perhaps immigrants to the hills. As a result of such contacts *Khasas* took the names and other status characteristics of Brahmins and Rajputs, or in some areas they may all have become 'Rajputs' while the immigrants from the plains were Brahmins. Meanwhile, *Doms* may have subdivided according to occupational speciality as a result of high caste expectations of their own adoption of plains attitude, or as a result of an influx of artisans from the plains. Around Jaunsar Bawar it seems not improbable that the caste of drummer-tailor-basketmakers (*Bajgi*) may be descended from the archetypical *Doms* while the other specialities (such as blacksmiths) were derived

from immigrant groups or possibly from specialisation within the old *Dam group-Kol* (such as weavers). It can be safely said that the origin and affinities of contemporary Jaunsari castes and occupational groups are largely unknown, and that this fact has stimulated conjecture. Such conjecture has centred most heavily on the *Khasas*, who are dominant in numbers, wealth and status and about whom some historical information is available.

The basis of polyandry seems to be economic among the Jaunsaris, because one wife wedded to all the consanguineous or blood-related brothers keeps the joint family intact and facilitates the divisions of labour. However, this marriage system has certain demerits also, particularly related with the reproductive health conditions of women.

The economy of Jaunsaris is mainly based on agriculture in the form of terrace cultivation in their hilly areas of habitation. This economy is further facilitated and supported by all the brothers who live jointly in a single nuclear or elementary family because of their polyandrous mating system. The chief god of the Jaunsaris is known as 'Mahasu' who is the incarnation of Lord Shiva and worshipped annually by whole community. The Jaunsaris believe in various other spiritual deities, which are responsible for control of different diseases. They perform various rituals to keep the evil spirits away from the village, thus protecting their society from the influence of evil spirits. Fairs and festivals related with life-cycle rituals are celebrated throughout the year. A close-knit society of the Jaunsaris has evolved its own traditional political system (*Sayana* system), for controlling their social behavior.

The rural women face a horrid situation. Besides sharing major responsibilities towards performing various conventional agricultural operations, they are required to collect daily needs of fodder and fuel, that being domestic essential of priority. There is no exaggeration of facts that the existing work pressure has greatly affected the health of this segment of society and in turn the health of young ones in the families. An attempt has been made to find out the health status of these Jaunsari women in this study.

OBJECTIVES OF STUDY AND METHODOLOGY

Rationale of the Study

The impact of culture on personality and vice-versa is a well-established fact. Various institutions of society viz, family, marriage, kinship etc. plays a vital role in an Indian culture, particularly in a tribal set up. A family structure is governed by many socio-cultural aspects of society to which a person belongs. Kinship imposed a number of taboos and avoidable relationships whereby one maintains a certain dignity and distance in day-to-day relationships. It is because of these taboos many a time certain health problems, with special reference to women, adolescent girl and children remains latent for a longer period and become life threatening in course of time as they do not discuss their health issues with the elder one and thus not able to receive the proper care at right time. It also contributes to rise in maternal and infant mortality rate and high prevalence of certain communicable diseases. A number of preventive interventions have been introduced by the government for women and children. However, the receptivity of these interventions, particularly in a tribal set up, seems to be very low due to socio- cultural barriers which do not permit the programme managers to intervene with them. Issues like personal hygiene, reproductive and maternal health, infant care and breastfeeding and sexually transmitted diseases are yet to be addressed at grass level.

In view of above, the study aims to identify the socio-cultural barriers in a tribal set up in adopting safe reproductive and child care practices and to suggest measures in planning the programmes in accordance with these understanding.

OBJECTIVES OF THE STUDY

- To assess the Knowledge, Attitude, Behaviour and Practices of tribal women toward reproductive and child health.
- To identify myths, misconception and barriers about reproductive and child health & care.

- To recommend measures to government for re-shaping strategies in consonance with the tribal culture and
- To identify the areas where trainings of the programme functionaries is needed.

Sample Selection

The baseline survey population of ICDS (January 2007) of Chakrata Block has been utilized to select a representative sample of 88 respondents from three villages namely Lakhamandal, Jogiyo and Tyuni. The sample includes unmarried adolescent girls, women in reproductive age group, pregnant women, lactating mothers, health care workers and community stakeholders.

Selection of Sample				
CHAKRATA BLOCK	Total No. under Survey	2% Sample of Total No. under Survey	Number of Sample + 1	Round Figure
Adolescent Girls	1628	32.56	33.56	34
Pregnant Women	441	8.82	9.82	10
Lactating Mothers	554	11.08	12.08	13
Women in Reproductive Age Group	598	11.96	12.96	13
Total				70
Source: ICDS Baseline Survey Jan 2007 CDPO OFFICE, Chakrata Block				

Selection of Area/ AWCs			
Areas under Chakrata Block	No. of AWCs	10%	Round Figure
Tyuni	24	2.4	3
Lakhamandal	24	2.4	3
Chakrata	26	2.6	3
Total	74	7.4	
10 % of AWC + 1		8.4	9

Plan of Action								
Block Chakrata		AG	Married Women			HF	FGD	Total
Areas	AWCs	AG	PW	LM	Repro. Age			
Lakhamandal	Jogiyo	4	1	2	2	1	1	11
	Lakhamandal	4	1	1	1	1	1	9
	Dhora pudiya	3	1	1	1	1	1	8
	Total	11	3	4	4	3	3	28
Chakrata	Haaja	4	1	2	2	1	1	11
	Dasau	4	1	1	1	1	1	9
	Dhodha	3	1	1	1	1	1	8
	Total	11	3	4	4	3	3	28
Tyuni	Kathang	4	2	2	2	1	1	12
	Baagi	4	1	2	1	1	1	10
	Chatra	4	1	1	2	1	1	10
		12	4	5	5	3	3	32
	Grand Total	34	10	13	13	9	9	88

Thus a sample of 88 respondents covering a 10 percent of the survey population under ICDS (Jan 2007) has been selected in the present study.

Sample size

S. N.	Group	Sample size
1	Tribal Women (Unmarried Tribal Girls = 34) (Married Tribal Women = 36)	70
2	Health Care Workers	09
3	Community Leaders and Stakeholders	09
	TOTAL	88

Research Tools:

During the study, relevant informations have been gathered from multiple sources— the target group (adolescent girls, pregnant women and lactating mothers), the health care workers and the community leaders and stakeholders. Responses received from various sources were triangulated for assessing their reliability and validity. Internal consistency has been ensured by incorporating multiple questions probing the same domain, in every interview/discussion. In each sample village, besides in-depth interview, focus group discussions have also been conducted for checking the veracity and to supplement the findings.

The primary data have been gathered with the help of an interview schedule. Separate schedules were prepared for unmarried adolescent girls, women in reproductive age group, pregnant women and lactating mothers. Besides, group discussions with health care workers (ANM, PHC doctor and Dai) and the community leaders/ stakeholders have been also arranged in the given area. (See Table given below)

Courtesy: Paul, Dinesh, NIPCCD, New Delhi			
Sch. No.	Category	Scale/ Tool	Purpose
1.	Unmarried Tribal Adolescent Girl (11-18 years)	Interview Schedule	<ul style="list-style-type: none"> • Profile of the Respondents • Knowledge about Adolescent Health • Knowledge about Anaemia • Awareness about Immunization • Enrollment at Aanganwadi Centre • Knowledge about Personal Hygiene • Knowledge about Menstruation • Knowledge about Reproductive Health • Awareness about Methods of Family Planning • Knowledge about HIV/AIDS

2.	Pregnant Women	Interview Schedule	<ul style="list-style-type: none"> • Profile of the Respondents • Knowledge about Anaemia • Awareness about Immunization • Enrollment at Aanganwadi Centre • Knowledge about Personal Hygiene • Knowledge about Reproductive Health • Awareness about Methods of Family Planning • Knowledge about HIV/AIDS • Knowledge about Maternal Health • Awareness about Ante Natal Care • Status of Antenatal Check up • Utilization of Health Services • Awareness about Care during Pregnancy • Diet during Pregnancy • Socio-cultural custom or rituals associated with pregnancy • Socio- Cultural Practices regarding Post-Delivery Care • Knowledge about Infant Care and Breastfeeding • Infant Feeding Practices • Knowledge about Initiation of Breastfeeding • Knowledge about Colostrum Feeding • Awareness about Exclusive Breast Feeding • Awareness about Duration of Exclusive Breastfeeding • Knowledge about Initiation of Complementary Food • Awareness about Growth Monitoring of Child • Awareness about Immunization of Child • Concept about Treatment of Diseases among Children • Knowledge about management of Diarrhoea
3.	Lactating Mother	Interview Schedule	- Same as Above -
4.	Women in Reproductive Age Group	Interview Schedule	- Same as Above -
5.	Health Care Workers (Dai, ANM, Doctors, Traditional Healers)	FGD Checklist	<ul style="list-style-type: none"> • General Hygiene Practices • Education al status in the Area • Reproductive Health • Maternal Health • Child Health • Common Health Problems • Socio-Cultural Practices
6.	Community Leaders and Stakeholders	FGD Checklist	- Same as Above -

RESULTS AND DISCUSSIONS

The results of the study conducted on a sample of Jaunsari tribal unmarried adolescent girls and married women including pregnant, lactating and women in reproductive age group in Chakrata Block of Dehradun District of Uttarakhand state of India are given in the following chapters. The data regarding the profile of respondents, knowledge and practices with reference to health and hygiene, reproductive health, pregnancy, lactation and child care have been analyzed and presented with the help of tables. Suitable statistical tools (mean, percentage) have been used to analyze the data, wherever found useful.

PROFILE OF THE RESPONDENTS

Age wise distribution of the respondents

As being followed in ICDS (11-18 years) and for an ease of analysis and interpretation, unmarried adolescent girls have been grouped into two age cohorts, namely 11-14 years and 15-18 years. All the girls from three intervention villages combined 50 percent of the girls in the sample belongs to the 11-14 years age cohort, while the remaining 50 percent share are in the 15-16 years of age cohort. Whereas in married women including women of reproductive age group, pregnant and lactating mother, most of the respondents belong to 21-25 year age group followed by 16 to 20 year. (See table 5.1)

Table 5.1: Age wise distribution of the respondents

Age of the Respondent	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)
ADOLESCENT GIRLS				
11 to 14 years	17 (50.0%)	--	--	--
15 to 18 years	17 (50.0%)	--	--	--
MARRIED WOMEN				
16 to 20 years	--	01 (7.6%)	02 (20.0%)	06 (46.1%)
21 to 25 years	--	03 (23.0%)	06 (60.0%)	06 (46.1%)
26 to 30 years	--	02 (15.3%)	--	01 (7.6%)
31 to 35 years	--	02 (15.3%)	01 (10.0%)	--
> 35 years	--	05 (38.4%)	01 (10.0%)	--

Educational Level of the Respondents

It is apparent from Table 5.2 that as far as education level is concerned unmarried adolescent girls have found to be the most literate ones. Among

adolescent girls, 17.6 percent have attained education upto primary level, 32.3 percent upto middle level, 29.4 percent upto secondary level while 11.7 percent upto senior secondary or above. Only 2.9 percent of adolescent girls have been found illiterate. Jaunsari married women on the other hand, have been found comparatively less educated. More than 44 percent (44.4%) are illiterate. Even those who were shown as educated 27.7 percent just know to read and write, 16.6 percent have attained education upto primary level, 5.5 percent upto middle level, 8.3 percent upto secondary and 8.3 percent upto senior secondary and above this level.

Table 5.2 : Educational level wise distribution of Respondents

Educational Qualification	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Illiterate	01 (2.9%)	04 (30.7%)	04 (40%)	04 (30.7%)	16 (44.4%)
Knows to read and write	02 (5.8%)	05 (38.4%)	01 (10%)	04 (30.7%)	10 (27.7%)
Primary	06 (17.6%)	02 (15.3%)	02 (20%)	02 (15.3%)	06 (16.6%)
Middle	11 (32.3%)	-	01 (10%)	01 (7.7%)	02 (5.5%)
Secondary	10 (29.4%)	02 (15.3%)	-	01 (7.7%)	03 (8.3%)
Sr. Secondary & Above	04* (11.7%)	-	02 (20%)	01 (7.7%)	03 (8.3%)

* Four adolescent girls have dropped the school and are now engaged in taking care of their younger ones at home.

When discussed in the community, the educational status further corroborated from the responses received from the community members—

हमारे यहां लड़कियों को स्कूल ज्यादा नहीं पढ़ाया जाता है —

Girls are not given more school education here -

- क्योंकि घर का काम ज्यादा होता है, जैसे कोई लड़की छोटे बच्चों को देखभाल करती है, कोई खेती का काम करती है, तो कोई भेड़ बकरियों के साथ जाती हैं इसलिये लड़कियों को स्कूल में नहीं पढ़ाया जाता है।
- There is excess of domestic work like some girls take care of their siblings, some are engaged in agricultural work and some girls take care of cattles, thus girls are not given school education.
- क्योंकि वे अगर स्कूल जायेंगी तो खेती का काम कौन करेगा, परिवार भूखा मर जायेगा।
- If they will go to school than who will work in the farms and family would starved.
- क्योंकि घर में बहुत काम होता है। उन्हें स्कूल भेजने के बारे में लोग सोचते भी नहीं है तथा सिर्फ खेती का काम ही करवाते हैं।
- Since there is excess of household work, people even don't think of sending girls to schools and mostly engage them in agricultural work.
- क्योंकि अगर वे स्कूल जायेंगी तो घर का काम कौन करेगा तथा छोटे भाई-बहनों को कौन देखेगा।
- If they will go to school then who will do household work and who will take care of siblings?

Occupation of the respondent

Occupational status of the subjects under study has shown in table given below. As evident, more than 60 percent (63.8%) among the married women are unemployed and works in cultivation in their fields and doing household work. A very small percentage (5.5%) of women in all three groups has found in any kind of service while a negligible percentage (2.7%) of women is involved in agricultural labour. All the unmarried adolescent girls have been sharing hand in cultivation or household work. (See table 5.3)

Table 5.3: Occupation wise distribution of Respondents

Occupation (multiple response)	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Cultivation	34 (100%)	11 (84.6%)	09 (90%)	13 (100%)	23 (63.8%)
Agriculture Labour	-	01 (7.7%)	-	-	01 (2.7%)
Service	-	01 (7.7%)	01 (10%)	-	02 (5.5%)
Self employed	-	-	-	-	
Casual Worker	-	-	-	-	
Unemployed/ House hold work	34 (100%)	11 (84.6%)	09 (90%)	13 (100%)	23 (63.8%)
Any other	-	-	-	-	

Family Structure

As evident from Table 5.4, a total 61.7 percent of adolescent girl belongs to nuclear family while remaining 38.2 percent belong to joint family. Amongst married women, more than one half (55.5%) of the total women belongs to joint family structure while 44.4 percentage have nuclear set up of family structure. The extended family form has not been found among any of the subjects.

Table 5.4: Distribution of Respondents by Type of Family

Type of Family	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Nuclear	21 (61.7%)	04 (30.7%)	05 (50%)	07 (53.8%)	16 (44.4%)
Joint	13 (38.2%)	09 (69.2%)	05 (50%)	06 (46.1%)	20 (55.5%)
Extended	-	-	-	-	

Type of House

Despite the availability of space, houses in Jaunsar--Bawar area are of very small size (crowded), possibly due to the cold climate and hilly topography. The houses have hardly any arrangements for light and air, though both are available in abundance. It has also been observed that in the catastrophe prone areas like Chakrata, even well-to-do families have preferred to live in *Kuchcha* houses due to safety reasons. Since, some of the villages come under this category, it would not be proper to assess the economic status of the households on the basis of their type of house. The table given below has depicted the housing pattern of the Jaunsari women.

Table 5.5: Distribution of Respondents by Type of House

Type of House	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Puckka	25 (73.5%)	07 (53.8%)	03 (30%)	03 (23.0%)	13 (36.1%)
Kuccha	08 (23.5%)	06 (46.1%)	07 (70%)	08 (61.5%)	21 (58.3%)
Semi-Puckka	01 (02.9%)	-	-	02 (15.3%)	02 (5.5%)

Bathroom facility at home

Bathing among Jaunsaris appears to be related to climate, belief and level of literacy. Due to longer span of cold climate, bathing is not a daily practice among Jaunsaris and is more a matter of ritual and means usually throwing a small quantity of water on the body. Most Jaunsaris do not use soap or any other cleaning agent. Poverty and ignorance are probably responsible for this. The frequency of bathing found higher with increase in education. When asked during discussion they generally do not use soap or detergent for washing the clothes which is necessary for removing the dirt and killing the germs. (S.N.H Rizvi, 1986)

The fact has further corroborated with discussion held with doctor at primary health centre of Lakhamandal who has revealed that a number of skin diseases are often reported among Jaunsaris because they do not clean their skin regularly and properly. Scabies is therefore the most common disease.

Table 5.6 given below shows the status of availability of bathroom at their home. Significantly, it shows that 35.30 percent of adolescent girls and a total of 63.88 percent of married women do not have bathroom facility at their house.

When asked they reported that they take bathe in open space (terrace or *verandah*) of house. This has also evident the fact of giving less importance to cleaning body regularly.

Table 5.6: Bathroom facility at Home

Bathroom facility at home	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	22 (64.7%)	05 (38.4%)	03 (30%)	05 (38.4%)	13 (36.1%)
No	12 (35.3%)	08 (61.5%)	07 (70%)	08 (61.5%)	23 (63.8%)

Disposal of excreta (Toilet Facility)

Improper disposal of night soil and human excreta are responsible for (i) direct infection in man; (ii) the contamination of soil or of ground or surface water; (iii) the possibility of disease transference to man through the agency of insect or animals.

Table 5.7: Toilet facility

Toilet facility at home	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	12 (35.3%)	03 (23.0%)	03 (30%)	04 (30.7%)	10 (27.7%)
No	22 (64.7%)	10 (76.9%)	07 (70%)	09 (69.2%)	26 (72.2%)

Table 5.7 has revealed the status of toilet facilities among Jaunsaris as moderately high percentage of respondents- 64.7 percent of adolescent girls, 76.9 percent of women in reproductive age group, 70 percent of pregnant women and 69.2 percent of lactating mothers not have toilet facility at their homes. When asked, respondents revealed alternate preference for defecation. Table given below shows that all the respondents, who don't have toilet facilities at home, go outdoor in fields for defecation. (See Table 5.8)

Table 5.8: Alternate Toilet facility

Alternate Toilet facility	Unmarried Adolescent Girls (N=22)	Women of Reproductive Age Group (N=10)	Pregnant Women (N=07)	Lactating Mother (N=09)
Community Toilet	-	-	-	-
Open space	22 (100.0%)	10 (100%)	07 (100.0%)	09 (100.0%)
Any other	-	-	-	-

The habit of going outdoors for defecation has been found to be another factor responsible for various infections or illnesses found among Jaunsaris.

Source of Drinking Water

There can be no state of positive health and well-being without the availability of safe drinking water. It is well known that a large number of diseases especially in the developing countries are due to unavailability of safe drinking water. Most illnesses are caused by drinking contaminated water and eating unsafe food. It is therefore essential for the general population to have adequate knowledge about the use of safe drinking water, particularly in areas which are backward and remote.

Considering the importance of safe drinking water, the respondents in the study have been asked about the source of drinking water being utilized and it is clear from the Table 5.9 that all the respondents have municipal supply at home and uses the same for drinking purpose.

Table 5.9: Source of drinking water

Source of drinking water being used	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)
Natural spring/Waterfall/	-	-	-	-
Municipal supply	34 (100 %)	13 (100%)	10 (100%)	13 (100%)
Hand pump	-	-	-	-
Any other	-	-	-	-

Though the idea of safe storage to maintain purity of water conveys hardly anything to Jaunsaris, they barely make any effort to preserve the cleanliness of drinking water. As a result, use of contaminated water results in a number of water-borne diseases.

KNOWLEDGE ABOUT HEALTH & HYGIENE

Knowledge about Adolescent Health

Adolescent is a crucial phase in the life of a woman. At this stage, she stands at the threshold of adulthood. This stage is intermediary between childhood and womanhood and it is the most eventful for mental, emotional and psychological well-being. It is a phase of rapid physical growth, psychosocial development and sexual transformation.

In the present study, efforts have been made to have an understanding about concept of health as perceived by tribal adolescent girls. Girls were encouraged to discuss their problem openly with the research team. The Table 6.1 shows the common health problems and possible causes of ailments among Jaunsari adolescent girls. It is seen that most of the girls consider heavy work load and lack of nutritious food intake as a general cause of weakness and fatigue in body. However, they lack understanding about the common problems related to menarche and hygiene.

Table 6.1: Health Problems and Possible Reasons

Health Problems	Possible Reasons
Weakness	Heavy work load Less intake of "Good" food Evil's Eye
Painful Menstruation	Loss of blood during menstruation
Irregular menstruation	Don't Know
Itching in Body parts	Heavy work load and no time for personal care
Inflammatory urine	Don't Know
General Fatigueness	Less intake of food
White discharge	Don't Know

Looking at the awareness even among education above secondary level, it is quite vital to boost up nutritional and health education among the tribal adolescent girls and to strengthen the NHED component of ICDS.

Girls when asked about the place for treatment of these health problems than, as is, evident from the Table 6.2 that 35.3 percent of girls obtain self or home treatment (a tea made of '*Banoska*' flower which is supposed to relieve pain during menstruation), while 29.4 percentage of girls approach government doctor at nearby PHC for treatment, 5.8 percent also relies on magico-religious performer for their treatment and a sizable proportion (2.9%) of girls takes their treatment from private medical practitioner or ANM.

Table 6.2: Place for Treatment of Health Problems

Treatment (multiple responses)	Unmarried Adolescent Girls (N= 34)
Self/Home Treatment	12 (35.2%)
Traditional Healer	-
Magico-religious Practitioner	02 (5.8%)
Pvt. Medical Practitioner	01 (2.9%)
ANM	01 (2.9%)
Govt. Doctor	10 (29.4%)
Any other	-

One of the interesting taboos noticed during the study that discussing menstrual problem of adolescent girls in the presence of elders or relatives perceived with the integrity of girl in the community.

Knowledge about Anaemia

Adolescence proves to be the most vulnerable phase in the path of human life cycle after infancy, characterized by rapid growth and development with a transition from childhood to adulthood. During this period they gain 50% of their adult weight and skeletal mass and more than 20 per cent of their adult height, where, nutrition plays a vital role in determining the growth, development and survival of an individual. Adolescents, especially adolescent girls, at this stage needs protein, iron and other micronutrients to support the adolescent growth spurt to meet the body's increased demand for iron during menstruation. The

main nutritional problems identified in adolescents are micronutrient deficiencies in general and iron deficiency anaemia in particular. (Agarwal, 2009)

Iron deficiency anaemia is the most common micronutrient deficiency among adolescence girls particularly in a rural set up. It is a major threat to safe motherhood and to the health and survival of infants because it contributes to low birth weight and lowered resistance to infection. During the study adolescent girls were assessed for their understanding about anaemia.

Table 6.3 reveals that a total 52.9 percent of adolescent girls affirmed to know about anaemia while 47.0 percent of girls do not have knowledge about anaemia

Table 6.3: Knowledge about Anaemia

Knowledge about Anaemia	No. of responses (n=34)
Yes	18 (52.9%)
No	16 (47.0%)

Girls who affirmed to have knowledge about anaemia stated that 72.2 percent considered it due to inadequate food intake and excessive work load while 61.1 percent thought blood loss during menstruation and weakness as a cause for anaemia. Magico- religious reasons have also been reported by 11.1 percent of girls (See Table 6.4)

Table 6.4: Knowledge about reasons for Anaemia

Knowledge about Reasons for anaemia (multiple responses)	No. of responses (n=18)
Bleeding during Menstruation	11 (61.1%)
Food intake deficiency	13 (72.2%)
Magico-Religious causes	02 (11.1%)
Stomach Worming	-
Excessive work load	13 (72.2%)
Weakness	11 (61.1%)
Don't know	-
Any other	-

Symptoms of Anaemia

During the study, adolescent girls have been asked to specify various symptoms they have experienced during anaemia. It is evident from the Table

given below that all the girls (100%) have reported symptom of weakness during anaemia, 72.2 percent have reported fatigue as a major symptom; noticeably more than 50 percent (55.5%) of girls have also reported breathless during anaemia while 38.8 percent and 22.2 percent of girls have reported loss of hunger and dizziness respectively. A sizeable proportion (55.5%) of girls found having no knowledge about symptoms associated with anaemia. (See Table 6.5)

Table 6.5: Symptoms of Anaemia

Symptoms of Anaemia (multiple responses)	No. of responses (n=18)
Weakness	18 (100%)
Fatigue	13 (72.2%)
Dizziness	04 (22.2%)
Loss of hunger	07 (38.8%)
Breathless	10 (55.5%)
Numbness and itchy	02 (11.1%)
PICA	0
Don't know	10 (55.5%)

Status of Immunization (TT Vaccination)

Adolescent girls under study have been asked for their knowledge and status of TT vaccination.

Data presented in the Table 6.6 reveals that a total of only 26.4 percent adolescent girls have received immunization after the age of 10 years while a large cohort (73.5%) of girls do not reported to have received any immunization.

Table 6.6: Status of Immunization

Immunization after the age of 10 years	N=34	Percentage
Yes	09	26.4
No	25	73.5

Those who reported having received immunization when asked about the kind of immunization then 07 girls found to have received TT immunization once while 02 girls have received TT twice after the age of ten years.

Awareness about Immunization

Table 6.7 depicts the awareness level of adolescent girls about TT immunization. It states that 52.9 percent of the total girls reported to have awareness about TT immunization while 47.0 percent do not have awareness about immunization during adolescence age for girls.

Table 6.7: Awareness about Immunization

Awareness about Immunization	No. of responses	Percentage
Yes	18	52.9
No	16	47.0

It is very possible that girls who have awareness about immunization not necessarily got immunized after the age of ten years as found in Table 6.6.

When discussed this issue with the parents of adolescent girls it has been found that immunization during adolescence is believed to create complication in conception and during pregnancy after marriage. Another notion of considering girls as “*paraya dhan*” does not let parents to immunize their girls during adolescence.

Enrollment at Aanganwadi Centre

During the study, 47.0 percent of girls have been found enrolled at AWC while 52.9 percent were not. (See Table 6.8)

Table 6.8: Enrollment at Aanganwadi Centre

Enrollment at AWC	N=34	Percentage
Yes	16	47.0
No	18	52.9

Knowledge about Personal Hygiene

Jaunsari's women have found to bother very little about basic personal hygienic practices. They appear to be less conscious of the utility of cleaning the body parts and changing inner clothes regularly. As age increases the regularity of cleaning body parts found to have decreases.

Use of *Panties*

Table 6.9 indicates that all the adolescent girls and married women under study have been found to use *panties* except one who explained that she feels high temperature around genitals wearing *panty*.

Table 6.9 : Use of Panties

Use of Panties	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)
Yes	34 (100.0%)	12 (92.3%)	10 (100.0%)	13 (100.0%)
No	-	01 (7.7%)	-	-

Frequency of use of *Panties*

The Table 6.10 clearly reveals that 97.0 percent of adolescent girls and a total of 63.8 percent of married women use *panties* on daily basis while 2.9 percent of girls and a total of 33.3 percent women use *panties* only during menstruation.

Table 6.10 : Frequency of use of panties

Frequency of use of panties	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Daily	33 (97.0%)	09 (69.2%)	06 (60.0%)	08 (61.5%)	23 (63.8%)
During the menstruation	01 (2.9%)	03 (23.0%)	04 (40.0%)	05 (38.4%)	12 (33.3%)
Don't use	-	01 (7.6%)	-	-	01 (2.7%)

Frequency of Washing *Panties*

The Table 6.11 evidences the practices prevailing among Jaunsari women regarding cleaning of inner garments. The table states that among adolescent girls only 20.5 percent wash their *panties* daily while 50 percent wash them once in a two day and 2.9 percent wash it once in a fortnight. While amongst married women a total of 34.2 percent wash their *panties* daily, 31.4 percent once in a two day while 17.1 percent once in a week and 7.7 percent once in a fortnight.

Table 6.11: Frequency of Washing *Panties*

Frequency of washing of Panties	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=12)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=35)
Daily	07 (20.5%)	06 (50.0%)	03 (30.0%)	03 (23.0%)	12 (34.2%)
Once in 2 days	17 (50.0%)	05 (41.6%)	02 (20.0%)	04 (30.7%)	11 (31.4%)
Once a week	09 (26.4%)	01 (8.3%)	04 (40.0%)	01 (7.7%)	06 (17.1%)
Fort nightly	01 (2.9%)	-	-	01 (7.7%)	01 (2.8%)
Any other specify	-	-	01* (10.0%)	04* (30.7%)	05 (14.2%)

*Respondents mentioned that they stitches *panty* at their own at onset of menstrual period and uses the same *panty* throughout the period and discarded it at the end of period.

Respondents when further asked about the place of cleaning of *panties* than majority of them have responded to wash them while taking bathe and dry them inside the house covering with some other clothes. Though, a few girls who possess good educational level have responded to dry them in open under the sun exposure.

Thus proper cleaning and disinfection of inner garments have been found to be a major concern among the Jaunsaris.

Respondents have been also asked about the number of *panties* they have. Table given above shows that 73.5 percent of adolescent girls and a total of 57.1 percent of married women have more than two *panties* with them followed by 20.5 percent of girls and a total of 34.2 percent of women having two *panties* and a sizeable proportion of girls (5.8%) and married women (8.5%) have only one *panty* with them. (See Table 6.12)

Table 6.12: Number of *Panties*

Number of panties	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=12)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=35)
One	02 (5.8%)	-	01 (10.0%)	02 (15.3%)	03 (8.5%)
Two	07 (20.5%)	06 (50.0%)	03 (30.0%)	03 (23.0%)	12 (34.2%)
More than two	25 (73.5%)	06 (50.0%)	06 (60.0%)	08 (61.5%)	20 (57.1)

Knowledge about Menstruation

One of the important physical changes associated with adolescence is the onset of menstruation in girls. Many girls develop a feeling of fear / anxiety when it occurs for the first time. They need to be educated that menstruation is a normal, natural part of physical development. During the study, the girls have been asked for their knowledge regarding menstruation.

Table 6.13 states that of the total adolescent girls 70.5 percent have attained their menarche while in 29.4 percent of girls, menstruation has not started.

Table 6.13: Onset of Menstruation

Menstruation started	Unmarried Adolescent Girls (N=34)	Percentage
Yes	24	70.5
No	10	29.4

Girls who have attained their menarche were also asked about the age of first menarche. Table 6.14 indicates that one- fourth (25%) of girls have attained their first menstruation at the age of 13 years while another 25 percent had attained at the age of 15 years and 16.6 percent each of the girls have attained menarche at the age of 11, 12 and 14 years respectively.

Table 6.14: Age of onset of Menstruation

Age of onset of Menstruation	Unmarried Adolescent Girls(N=24)	Percentage
11	04	16.6
12	04	16.6
13	06	25.0
14	04	16.6
15	06	25.0

Perception towards menstruation

All the respondents from three studied villages have been asked about their perception about menstruation. It is significant to note that most of the respondents have concurred perception about menstruation as dirty and impure.

Table 6.15 shows that 70.5 percent of girls, 92.3 percent of women in reproductive age group, 80 percent of pregnant women and the lactating

mother (100%) have reported their perception about menstruation as dirty and impure **and therefore**, during this period, **they** - do not enter the kitchen, should not perform *Pooja* and should keep themselves aloof. There is also another notion prevailed among women that menstruation is good for health as it removes dirty blood from body.

Table 6.15 : Perception towards menstruation

Is Menstruation is dirty and makes impure?	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	24 (70.5%)	12 (92.3%)	08 (80.0%)	13 (100.0%)	33 (91.6%)
No	10 (29.4%)	01 (7.7%)	02 (20.0%)	-	03 (8.3%)

The perceptions regarding menstruation as reported by girls are summarized in the block given side by.

Thus there is a definite need to educate the adolescent girls that menstruation is a natural phenomenon of physical development. They need proper counseling about the various natural changes that occur during this period.

Problems during menstruation

- यह गन्दा खून है।
- It is a dirty blood.
- लड़की के शरीर के लिए अच्छा है क्योंकि गन्दा खून निकल जाने से स्वास्थ्य ठीक रहता है।
- It is good of girl's body as removal of dirty blood makes it healthy.
- यह सभी लड़कियों को होता है।
- It happens to every girl.
- यह इसलिए होता कि लड़की माँ बन सके।
- It happens so that a girl becomes a mother.
- नहीं मालूम।
- Do not know.

Table 6.16 indicates that 75% of the adolescent girls who have attained their menarche reported to have faces some kind of physical problem during menstruation.

Table 6.16: Problem during menstruation

If any Problem occurred during the menstruation?	Unmarried Adolescent Girls (N=24)	Percentage
Yes	18	75.0 %
No	06	25.0 %

Those girls who have experienced some kind of physical problems during menstruation when asked about the nature of problem than a total of 88.8 percent of them reported about lower abdominal pain, 66.6 percent have backache while

50 percent experienced severe pain during menstruation. A sizeable proportion (11.1%) of adolescent girls also faced problem of foul smell during menstruation. (See Table 6.17)

Table 6.17: Problems occur during the menstruation

Problems occurred during the menstruation	Painful menstruation	Lower Abdominal Pain	Backache	Foul Smell	Any other
Unmarried Adolescent Girls (N=18)	09 (50.0%)	16 (88.8%)	12 (66.6%)	02 (11.1%)	-

Hygiene during Menstruation

Table 6.18 indicates that a total of 62.5 percent of adolescent girls and 80.5 percent of married women use clean cloth during the menstruation followed by those who use market made sanitary napkins—37.5 percent of adolescent girls and a total of 11.1 percent of married women. A small proportion (8.3%) of married women has also found to use cotton and gauze during menstruation.

Table 6.18: Hygiene during Menstruation

Use during Menstruation	Unmarried Adolescent Girls (N=24)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Sanitary napkins	09 (37.5%)	-	02 (20.0%)	02 (15.3%)	04 (11.1%)
Cotton and gauze	0	02 (15.3%)	01 (10.0%)	-	03 (8.3%)
Clean cloth	15 (62.5%)	11 (84.6%)	07 (70.0%)	11 (84.6%)	29 (80.5%)

Of the respondents who use cloth during menstruation have been asked about its reuse, than 13.3 percent of adolescent girls and a total of 34.4 percent of married women concurred about its reuse. (See Table 6.19)

Table 6.19: Reuse of Cloth

Reuse of Cloth	Unmarried Adolescent Girls (N=15)	Women of Reproductive Age Group (N=11)	Pregnant Women (N=07)	Lactating Mother (N=11)	Total Married Women (N=29)
Yes	02 (13.3%)	04 (36.3%)	02 (28.5%)	04 (36.3%)	10 (34.4%)
No	13 (86.6%)	07 (63.6%)	05 (71.4%)	07 (63.6%)	19 (65.5%)

When asked about reason for reuse of cloth, most of the respondents put forward economical limitation in buying sanitary napkins. There is also a notion among adolescent girls that purchasing sanitary napkins from market would ruin their “image” in the community.

Disinfection of Cloth

It is clear from the Table 6.20 that all the adolescent girls and a total of 60 percent of married women who reuse cloth during menstruation disinfects the cloth while 25 percent of women in reproductive age group and majority (75%) of lactating mother refuse of disinfection of cloth. When probed it was found that they only use the cloth throughout the period and then discarded at the end.

Table 6.20: Disinfection of Cloth

Disinfection of cloth	Unmarried Adolescent Girls (N=02)	Women of Reproductive Age Group (N=04)	Pregnant Women (N=02)	Lactating Mother (N=04)	Total Married Women (N=10)
Yes	02 (100 %)	03 (75.0%)	02 (100.0%)	01 (25.0%)	06 (60.0%)
No	-	01 (25.0%)	-	03 (75.0%)	04 (40.0%)

Those who have been found to reuse cloth during menstruation, mostly disinfect the cloth using plain water and detergent soap. (See Table 6.21)

But the same practice of drying is being continued as in the case of *panties* i.e drying them inside house covering it with some other cloth.

Table 6.21: Disinfection of Cloth with Plain water

Disinfect the cloth with	Unmarried Adolescent Girls (N=02)	Women of Reproductive Age Group (N=04)	Pregnant Women (N=02)	Lactating Mother (N=04)
Plain water	-	01 (25.0%)	-	-
With Soap & Water	02 (100 %)	03 (75.0%)	02 (100.0%)	04 (100%)

KNOWLEDGE ABOUT REPRODUCTIVE HEALTH

Knowledge about Correct Legal Age of Marriage

There is a definite relationship between the age of a mother and the fate of her child. Baby of a teen-age mother has the highest risk for neo-natal and post-neonatal mortality. According to a WHO report, a child born of an adolescent mother has almost one and half times greater risk of dying before completing the first year of life as compared to a child born of a mother of 20 years of age. Even during the second year of life, the chances of his/her death continue to be higher. The Constitution of India has also prescribed 18 years as the minimum age for marriage of girls and 21 years for boys.

In the present study, the subjects have been asked to ascertain their knowledge regarding the minimum legal age for marriage of a girl. Their answers regarding minimum legal age for marriage of girls are summarized in the Table 7.1 given below.

It is interesting to know that a sizeable proportion of respondents [11.7% of adolescent girls, and a total of 19.4% of married women] found to have incorrect knowledge whereas 80.2% of adolescent girls and a total of 80.5% of married women affirmed to know the correct legal age of marriage of a girl.

Table 7.1: Knowledge about Correct Legal age of Marriage of a Girl

Knowledge about Correct Legal age of Marriage of a Girl	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Correct	30 (88.2%)	11 (84.6%)	07 (70%)	11 (84.6%)	29 (80.5%)
Incorrect	04 (11.7%)	02 (15.3%)	03 (30%)	02 (15.3%)	07 (19.4%)

Knowledge about Correct Age of Conception of first Child

Table given below states that 85.3 percent of adolescent girls, 76.9 percent of women in reproductive age group, 70 percent of pregnant women and 76.9 percent of lactating mothers have knowledge about correct age of bearing child for first time. (See Table 7.2)

Table 7.2: Knowledge about Correct Legal age of first conception

Knowledge about Correct Age of first Conception	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	29 (85.3%)	10 (76.9%)	07 (70%)	10 (76.9%)	27 (75.0%)
No	05 (14.7%)	03 (23.0%)	03 (30%)	03 (23.0%)	09 (25.0%)

Respondents, who affirmed to have knowledge about correct age of conception for first child, have also been asked about the accuracy of information. Table 7.3 indicates the range of age (16 to >25 years) reported by respondents and shows that 34.4 percent of adolescent girls have reported 22 year as age for first conception followed by 20.6 percent considering it as 20 years. Amongst married women a total of 44.4 percent have considered 20 years as age for conception of first child. 6.8 percent of girls and 10 percent of women also believes 18 years and more than 25 years as age of first conception. Significantly, 14.2 percent of pregnant women consider 16 year as age for bearing of first child.

Table 7.3: Age of first conception

Age of first Conception (in years)	Unmarried Adolescent Girls (N=29)	Women of Reproductive Age Group (N=10)	Pregnant Women (N=07)	Lactating Mother (N=10)
16	-	-	01 (14.2%)	-
17	-	-	-	-
18	02 (6.8%)	01 (10.0%)	-	-
19	01 (3.4%)	-	-	-
20	06 (20.6%)	03 (30.0%)	03 (42.8%)	06 (60.0%)
21	04 (13.7%)	03 (30.0%)	02 (28.5%)	-
22	10 (34.4%)	01 (10.0%)	-	03 (30.0%)
23	02 (6.8%)	01 (10.0%)	01 (14.2%)	-
24	02 (6.8%)	-	-	-
25	-	01 (10.0%)	-	-
>25	02 (6.8%)	-	-	01 (10.0%)

Those who have reported correct age of conception have also been asked about the ill effects of conception at a tender age. Major responses received from the respondents who could say anything are given in the box.

Such mothers become physically very weak and sickly
(माँ कमजोर हो जाती है/बीमार हो जाती है/खून की कमी हो जाती है/उम्र कम हो जाती है)
The child born is weak/ unhealthy
(बच्चा कमजोर पैदा होता है/बच्चे का स्वास्थ्य ठीक नहीं रहता)
Mortal risk to both mother and child/problems in delivery
(माँ/बच्चे की जान को खतरा रहता है/बच्चा पैदा होते समय परेशानी होती है)
Such mothers are unable to give proper care to their child
(बच्चे की देखभाल ठीक ढंग से नहीं कर पाती)
More children are born adding to the population
(ज्यादा बच्चे पैदा होते हैं, जनसंख्या बढ़ती है)

Knowledge about gap of years between marriage and conception of first child

To find out the knowledge level, respondent have been asked that, 'After how many years of marriage a women should conceive?'

Responses summarized in the Table 7.4 reveals that 35.3 percent of adolescent girls and a total of 44.4 percent of married women found this decision in the hand of husband or in-laws. However, 29.4 percent of girls and 33.3 percent of married women also responded nearly correct information of a gap of two to three year.

A sizeable proportion of respondents [23.5 % girls and 13.3 % women] consider one year as an ideal gap. 11.7 percent of girls and 15.3 percent of women in reproductive age group found not having any knowledge about gap of years between marriage and conception of first child. (See Table 7.4)

Table 7.4: Knowledge about Gap between Marriage and Conception

Responses	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Within 1 year	08 (23.5%)	01 (7.9%)	01 (10.0%)	02 (15.3%)	04 (13.3%)
2 - 3 years	10 (29.4%)	04 (30.7%)	03 (30.0%)	05 (38.4%)	12 (33.3%)
At the will of husband or in-laws	12 (35.3%)	06 (46.1%)	06 (60.0%)	06 (46.1%)	16 (44.4%)
Don't know	04 (11.7%)	02 (15.3%)	-	-	-

Number of Children after Marriage

Table 7.5 below reveals that 70.6 percent of adolescent girls and a total of 66.6 percent of married women preferred having two children after marriage while 23.5 percent of girls, 15.3 percent of women in reproductive age group, 30 percent of pregnant women and 30.7 percent of lactating mother prefer more than two children after marriage. A sizeable proportion [2.9% adolescent girls and 7.7 % of lactating mothers] prefers only one child after marriage. Whereas 2.9 percent of girls and 15.3 percent of women in reproductive age group do not have knowledge about the number of children one should have after marriage.

Table 7.5: Number of Children after Marriage

How many children one should have after marriage	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Only one	01 (2.9%)	-	-	01 (7.7%)	01 (2.7%)
Two	24 (70.6%)	09 (69.2%)	07 (70.0%)	08 (61.5%)	24 (66.6%)
More than two	08 (23.5%)	02 (15.3%)	03 (30.0%)	04 (30.7%)	09 (25.0%)
Don't know	01 (2.9%)	02 (15.3%)	-	-	02 (5.5%)

Knowledge about Birth Gap between Two Children

Table 7.6 indicates that a significant percent (41.1 % adolescent girls and 41.6% married women) of Jaunsaris believes a gap of two year between two children as correct information followed by those who consider three year gap (26.4 % adolescent girls and 27.7 % married women). Also, 29.4 percent of adolescent girls and a total of 13.8 percent of married women also believe a gap of just only one year. While sizeable proportion (2.9 % adolescent girls and 8.3 % married women) of subjects does not have knowledge about the birth gap between two children.

Table 7.6: Birth gap between two children

Birth gap between two children	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
One year	10 (29.4%)	02 (15.3%)	-	03 (23.0%)	05 (13.8%)
Two years	14 (41.1%)	06 (46.1%)	06 (60.0%)	05 (38.4%)	15 (41.6%)

Three years	09 (26.4%)	03 (23.0%)	03 (30.0%)	04 (30.7%)	10 (27.7%)
> Four years	-	-	-	01 (7.7%)	01 (2.7%)
Don't know	01 (2.9%)	02 (15.3%)	01 (10.0%)	-	03 (8.3%)

Awareness about Methods of Family Planning

During the study respondents were also probed about their awareness for any methods of family planning. Table 7.7 reveals that a little more than 90 percent (91.1%) of adolescent girls and a total of 88.8 percent of married women concurred having knowledge about methods of family planning. However, 8.8 percent of girls and 11.1 percent of married women lacked any information about family planning methods.

Table 7.7: Awareness about Methods of Family Planning

Methods of family planning	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	31 (91.1%)	12 (92.3%)	09 (90.0%)	11 (84.6%)	32 (88.8%)
No	03 (8.8%)	01 (7.7%)	01 (10.0%)	02 (15.3%)	04 (11.1%)

Those who found having knowledge about family planning methods have also been specifically asked about the name of methods for men and women. The responses given by respondents are summarized in the Table 7.8

Table 7.8: Methods of Family Planning

Methods of family planning (multiple response)	Unmarried Adolescent Girls (N=31)	Women of Reproductive Age Group (N=12)	Pregnant Women (N=9)	Lactating Mother (N=11)	Total Married Women (N=32)
FOR MEN					
Condom	22 (70.9%)	12 (100%)	08 (88.8%)	10 (90.9%)	30 (93.7%)
Vasectomy	11 (35.4%)	10 (83.3%)	04 (44.4%)	08 (72.7%)	20 (62.5%)
Any other specify	-	-	-	-	-
FOR WOMEN					
Contraceptive Pills	31 (100%)	12 (100%)	09 (100%)	11 (100%)	32 (100%)
Tubectomy	26	12	09	9	30

	(83.8%)	(100%)	(100%)	(81.8%)	(93.7%)
Copper - T	26 (83.8%)	11 (91.6%)	09 (100%)	10 (90.9%)	30 (93.7%)
Any other (specify)	2** (6.4%)	-	-	-	-

**VACCINATION AND INJECTION

The Table 7.8 reveals that for men, use of condom is have been considered to be the most popular method (70.9 % girls and 93.7% women) followed by vasectomy. Among the women use of contraceptive pills (100% for both girls and women), copper-t and tubectomy (83.8 % girls and 93.7 % women for each category) have been considered as popular methods for family planning. A sizeable percent (6.4 %) of adolescent girls with higher literacy level also knows about the vaccination (*Dimpa*) method of family planning.

KNOWLEDGE ABOUT MATERNAL HEALTH

This section specifically deals with awareness level of Jaunsari's married women including women in reproductive age group, pregnant women and lactating mothers regarding various aspects of maternal health and care. The results are presented in simple tabular forms.

Awareness about Ante Natal Care

During the study, Jaunsari women have been for their awareness about the importance of antenatal care during pregnancy.

Table 8.1 shows that a large majority (86.1 percent) of respondents including women in reproductive age group (92.3%), pregnant women (70 %) and lactating mothers (92.3%) have knowledge about the need and importance of antenatal care and considered it necessary during pregnancy. While a sizeable proportion (13.8%) of the respondents found not having awareness about antenatal care.

Table 8.1: Awareness about Ante Natal Care

Awareness about need of antenatal care	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	12 (92.3%)	07 (70.0%)	12 (92.3%)	31 (86.1%)
No	01 (7.6%)	03 (30.0%)	01 (7.6%)	05 (13.8%)

Awareness about Services for Pregnant Women

Respondents have also been asked for ascertaining their awareness about services for pregnant women available in their area. The responses which are summarized in the Table given below which reveals that a total of 88.8 percent of women were aware about services for pregnant women while 11.1 percent had no knowledge of any of these services. (See Table 8.2)

Table 8.2: Awareness about any services for pregnant women

Awareness about any services for pregnant women	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	11 (84.6%)	09 (90.0%)	12 (92.3%)	32 (88.8%)
No	02 (15.3%)	01 (10.0%)	01 (7.6%)	04 (11.1%)

Those having awareness have been further asked to list out the services for pregnant women. The responses are summarized in the Table 8.3 which indicates that supplementary nutrition (100 %) and immunization (53.1%) are the most popular services followed by Double Ration and Daliya & Salt (34.3% each). Surprisingly, only 9.3 percent of women knew about free antenatal checkup in the three intervention villages of Chakrata Block.

Table 8.3 : Services for pregnant women

Services for pregnant women	Women of Reproductive Age Group (N=11)	Pregnant Women (N=09)	Lactating Mother (N=12)	Total Married Women (N=32)
Supplementary Nutrition	11 (100 %)	09 (100 %)	12 (100%)	32 (100%)
Double Ration for Pregnant Women	05 (45.4 %)	02 (22.2 %)	04 (33.3%)	11 (34.3%)
Free Antenatal Checkup	05 (45.4 %)	04 (44.4%)	04 (33.3%)	03 (9.3%)
Immunization	06 (54.5%)	05 (55.5%)	06 (50.0%)	17 (53.1%)
Daliya and Salt	05 (45.4 %)	02 (22.2 %)	04 (33.3%)	11 (34.3%)

Awareness about places of availability of services for pregnant women

Respondents have also asked to indicate their awareness about availability of the services reported by them. Information given in Table 8.3 shows that a total of 88.8 percent of women knew Aanganwadi Centre as the place for availability of services for pregnant women while 27.77 percent women reported Primary Health Centre and Government Hospitals (8.3%) for these services. Significantly, more than 11 percent (11.1%) of women were not aware of the places for availability of these services.

Table 8.4 : Awareness about places services for pregnant women

Awareness about places of availability of services for pregnant women (multiple responses)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Aanganwadi Centre	11 (84.6%)	09 (90.0%)	12 (92.3%)	32 (88.8%)
PHC	05 (38.4%)	03 (30.0%)	02 (15.3%)	10 (27.7%)
Private Doctors	-	-	-	-
Government Hospitals	02 (15.3%)	01 (10.0%)	-	03 (8.3%)
Private Hospitals	-	-	-	-
Other (specify)	-	-	-	-
Don't know	02 (15.3%)	01 (10.0%)	01 (7.6%)	04 (11.1%)

Age of Conception

As stated in the earlier chapter, there is a definite relationship between the age of the mother and fate of the child. Baby of a teen-age mother has the highest risk for neo-natal and post-neonatal mortality.

During the study, the women have been asked about their age of first conception after marriage. Their answers are summarized in Table 8.5. It shows that a considerable percentage (25 %) of women got conceived first time at the age of 16 year followed by 17 years (19.4%), 18, 20 and 21 years (13.8% each). Interestingly, 15.3 percent of women in reproductive age group answered 15 year as their age of first conception. Thus early marriage and early conception is a major issue among Jaunsaris.

Table 8.5 : Age of First Conception

Age of First Conception (in years)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
15	02 (15.3%)	-	-	02
16	04 (30.7%)	01 (10.0%)	04 (30.7%)	09
17	03 (23.0%)	04 (40.0%)	-	07
18	01 (7.6%)	02 (20.0%)	02 (15.3%)	05
19	01 (7.6%)	-	02 (15.3%)	03
20	-	02 (20.0%)	03 (23.0%)	05
21	01 (7.6%)	01 (10.0%)	02 (15.3%)	04
25	01 (7.6%)	-	-	01

Status of Antenatal Check up

Married women who were pregnant or have children have been asked that, 'Have you undergone any antenatal checkup during pregnancy?' The responses summarized in Table 8.6 reveals that a total of 61.1 percent of women had undergone antenatal checkup during pregnancy while more than one third (38.8%) of the women did not obtain any antenatal checkup.

Table 8.6 : Undergone any antenatal check up during pregnancy

Undergone any antenatal check up during pregnancy	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	08 (61.5%)	04 (40.0%)	10 (76.9%)	22 (61.1%)
No	05 (38.4%)	06 (60.0%)	03 (23.0%)	14 (38.8%)

Type of Antenatal Checkup Undergone

Those who have received antenatal checkup were probed about the type of antenatal checkup. Table 8.7 shows that more than 90 percent (90.9%) got their abdomen check during pregnancy, 45.4 percentage Blood Pressure and Weight while 27.2 percent undergone haemoglobin check up during their pregnancy period. When asked about any traditional practice of antenatal checkup, on an overall basis a total of 38.4 percent referred local *Dai* person who is responsible for periodic examine of abdomen and let know about the position of foetus in womb during pregnancy.

Table 8.7: Type of antenatal check up

Type of antenatal check up (multiple response)	Women of Reproductive Age Group (N=08)	Pregnant Women (N=04)	Lactating Mother (N=10)	Total Married Women (N=22)
Abdomen	06 (75.0%)	04 (100%)	10 (100%)	20 (90.9%)
Blood Pressure	05 (62.5%)	02 (50.0%)	03 (30.0%)	10 (45.4%)
Weight	05 (62.5%)	02 (50.0%)	03 (30.0%)	10 (45.4%)
Haemoglobin	05 (62.5%)	01 (25.0%)	-	06 (27.2%)

While those who have not received any antenatal checkup have found lack of awareness (71.4%), unavailability of health services (14.2%) and denial of In-laws (35.7%) as major reasons. (See Table 8.8)

Table 8.8 : Reasons for not availing Antenatal Checkup

Reasons	Women of Reproductive Age Group (N=05)	Pregnant Women (N=06)	Lactating Mother (N=03)	Total Married Women (N=14)
Lack of Awareness	04 (80.0%)	04 (66.6%)	02 (66.6%)	10 (71.4%)
Health Services not available	01 (20.0%)	01 (16.6%)	-	02 (14.2%)
Denial of In-laws	02 (50.0%)	02 (33.3%)	01 (33.3%)	05 (35.7%)

Thus lack of awareness and denial of husband or in-laws are the major factors reported during the study which are contributing heavily in deteriorating the health status of Jaunsari women

Utilization of Health Services during Pregnancy

In India, an important cause of death in infancy is neonatal tetanus. Neonatal tetanus, however, is a preventable disease. Two doses of tetanus toxoid vaccine given one month apart during early pregnancy are nearly 100 percent effective in preventing tetanus among both newborn infants and their mothers. Immunity against tetanus is transferred to the foetus through the placenta when the mother is vaccinated.

Neonatal tetanus is most common among children who are delivered in unhygienic environments and when unsterilized instruments are used to cut the umbilical cord.

Knowing the fact that a large number of deliveries in the intervention blocks take place in homes and indigenous unhygienic tools like sickle are used to cut the umbilical cord, neonates of the area are extremely susceptible to tetanus, therefore, the importance of TT vaccination of pregnant women can be hardly overemphasized.

In addition, nutritional deficiencies in women are often exacerbated during pregnancy because of the additional nutrient requirements of foetal growth. Iron deficiency anaemia is the most common micronutrient deficiency in the world. It is a major threat to safe motherhood and to the health and survival of infants because it contributes to low birth weight and lowered resistance to infection. Provision of iron and folic acid (IFA) tablets to pregnant

women forms an integral part of the safe motherhood services offered under the RCH programme. The programme recommends that pregnant women consume 100 IFA tablets during pregnancy. For proper absorption of iron in the body, it should be taken with certain items (called enhancers such as lemon) and should **not** be taken with certain items (called inhibitors such as milk, tea, coffee, etc.). In the present study, the married women have been asked for their status of availing health services during pregnancy by asking that, 'What were the services you received during your pregnancy?'

Table 8.9 shows that amongst the respondents only 36.1 percent of women got themselves registered either at AWC or with ANM. A total of 27.7 percent of women received TT immunization while only 16.66 percent women consume IFA tablets during pregnancy.

Under the ICDS scheme pregnant women is given double ration to meet the additional nutritional requirement. The result shows that only 30.5 percent of women received double ration and only 27.7 percent undergone regular weight monitoring during pregnancy. 16.6 and 27.7 percentage of respondents also found to have undergone haemoglobin and blood pressure check up respectively. A sizeable proportion (36.1%) of women specified abdomen check up by ANM as a service availed by them. Thus the result reveals a matter of serious concern regarding maternal care among Jaunsari women.

Table 8.9 : Services Availed

Services Availed (Multiple responses)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Registration	05 (38.4%)	04 (40%)	04 (30.7%)	13 (36.1%)
TT Immunization	05 (38.4%)	02 (20%)	04 (30.7%)	11 (30.5%)
IFA Tablets	03 (23.0%)	01 (20%)	02 (15.3%)	06 (16.6%)
Double Ration	03 (23.0%)	04 (40%)	04 (30.7%)	11 (36.1%)
Weight Monitoring	05 (38.4%)	02 (20%)	03 (23.0%)	10 (27.7%)
Haemoglobin	05 (38.4%)	01 (10%)	0	06 (16.6%)
Blood Pressure	05 (38.4%)	02 (20%)	03 (23.0%)	10 (27.7%)
Any Other, Specify*	05 (38.4%)	04 (40%)	04 (30.7%)	13 (36.1%)

*abdomen checkup by visiting ANM.

Those who have not availed services were probed for the reason. The reasons given are enlisted in the box given here.

Awareness about Care during Pregnancy

Additional care during pregnancy is vital and related with health of mother and new born. Keeping in view its significance Jaunsari's women were probed to ascertain awareness and practices.

Table 8.10 reveals that women have been found aware about an ideal measure of having more diet (44.4%), more rest (36.1%), and gaining more weight (13.8%) during pregnancy. Option of doing more heavy physical work and taking less diet was completely ruled out by the respondents. Less rest (8.3%), less weight gain (2.7%) and doing less heavy physical work (36.11%) are also suggested by women as ideal measures. However, having normal diet (44.4%), normal rest (41.6%), a normal gain in weight (36.1%) and keep doing heavy physical work normally (44.4%) were also answered by married women. Interestingly, a sizeable proportion of women do not have any awareness about role of diet (19.4%), rest (11.1%), weight gain (19.4%) and heavy physical work (16.6%) during pregnancy.

Against the ideal measures to be taken care of during pregnancy, as suggested by respondents, only 11.1% each of women found practicing having more diet and more rest while 8.3% of women practice gaining more weight and interestingly doing more physical work (22.2%).

Alarmingly, practice of having less diet (38.8%), less rest (41.6%) and less gain in weight (33.3%) during pregnancy were also responded by the women. A 22.2 percent also mentioned about practice of doing less heavy physical work during pregnancy. A large cohort of women mentioned about practicing normal diet (47.2%), normal rest (44.4%), normal gain in weight (55.5%) and doing heavy physical work normally (52.7%).

- ☞ माँ/होने वाले बच्चों को नज़र लग जाती है
- ☞ Evil's Eye to mother or new born
- ☞ होने वाला बच्चा कमजोर हो जाता है।
- ☞ Born child would be weak
- ☞ जानकारी नहीं है।
- ☞ Lack of awareness
- ☞ घर वाले मना करते हैं।
- ☞ Denial of family members
- ☞ गाँव में सुविधा नहीं है।
- ☞ Health services not available

Table 8.10 : Awareness about Care during Pregnancy

Respondents	Measures during pregnancy	What Should be?				What is being practiced?			
		A	B	C	D	A	B	C	D
Women of Reproductive Age Group (N=13)	Diet	04 (30.7%)	0	06 (46.1%)	02 (15.3%)	02 (15.3%)	06 (46.1%)	05 (38.4%)	0
	Rest	05 (38.4%)	01 (7.6%)	04 (30.7%)	02 (15.3%)	01 (7.6%)	08 (61.5%)	03 (23.0%)	0
	Weight Gain	0	05 (38.4%)	05 (38.4%)	02 (15.3%)	01 (7.6%)	05 (38.4%)	06 (46.1%)	0
	Heavy Physical Work	0	04 (30.7%)	06 (46.1%)	02 (15.3%)	01 (7.6%)	03 (23.0%)	08 (61.5%)	0
Pregnant Women (N=10)	Diet	04 (40.0%)	0	03 (30.0%)	03 (30.0%)	01 (10.0%)	03 (30.0%)	05 (50.0%)	0
	Rest	03 (30.0%)	02 (20.0%)	05 (50.0%)	0	01 (10.0%)	04 (40.0%)	05 (50.0%)	0
	Weight Gain	04 (40.0%)	02 (20.0%)	03 (30.0%)	01 (10.0%)	01 (10.0%)	02 (20.0%)	07 (70.0%)	0
	Heavy Physical Work	0	05 (50.0%)	04 (40.0%)	01 (10.0%)	03 (30.0%)	02 (20.0%)	05 (50.0%)	0
Lactating Mother (N=13)	Diet	04 (30.7%)	0	07 (53.8%)	02 (15.3%)	01 (7.6%)	05 (38.4%)	07 (53.8%)	0
	Rest	05 (38.4%)	0	06 (46.1%)	02 (15.3%)	02 (15.3%)	03 (23.0%)	08 (61.5%)	0
	Weight Gain	01 (7.6%)	03 (23.0%)	05 (38.4%)	04 (30.7%)	01 (7.6%)	05 (38.4%)	07 (53.8%)	0
	Heavy Physical Work	0	04 (30.7%)	06 (46.1%)	03 (23.0%)	04 (30.7%)	03 (23.0%)	06 (46.1%)	0

A = More; B= Less; C= Normal; D= Don't Know

Thus merely being aware about the extra measures during pregnancy should in no way be taken as representative of a good level of awareness. On the contrary, it is important to highlight the practices swayed with traditionalist notion of socio-cultural beliefs regarding diet, rest, weight gain and physical work during pregnancy and which proves to be a rein in practicing safe maternal care and availing available health services.

Awareness about Diet during Pregnancy

The geography of Jaunsaris-Bawar plays an important role in determining the dietary habits of the Jaunsaris. The Jaunsaris are non-vegetarians but the frequency of eating meat or fish is very low. Their diet includes all those vegetables food which are grown in the area, varying from season to season. During the study women were asked about their awareness of taking extra diet during pregnancy.

Table 8.11 reveals that alarmingly only 27.7 percent of women responded to take extra diet during pregnancy while significantly high percentage (72.2%) of women have ruled out the concept of extra diet.

Table 8.11 : Extra diet during Pregnancy

Extra Diet during Pregnancy	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	02 (15.3%)	04 (40.0%)	04 (30.7%)	10 (27.7%)
No	11 (84.6%)	06 (60.0%)	09 (69.2%)	26 (72.2%)

Those women who responded to take extra diet have been further probed to know about some special food. Interestingly, no special food is found to be consumed during pregnancy rather whatever is being eating as routine diet, during pregnancy, they just add on the frequency (four times a day) of meal.

Those who have refused to take any extra diet during pregnancy have revealed some interesting reasons (social taboos). They are as follows:-

- ☞ ज्यादा खाना खाने से पेट में बच्चा फँस जाता है और डिलीवरी के समय दिक्कत होती है।
- ☞ Eating more would reduce the growth of baby in womb and also create complications at the time of delivery.
- ☞ ज्यादा खाना खाने के बारे में घर में किसी ने नहीं बताया।
- ☞ No one in the family has promoted to have extra diet during pregnancy.

Inhibition of food items during pregnancy

In normal days there is no restriction and a woman can have the same meal as cooked or gathered for other members of the family.

However, a pregnant woman is supposed to follow certain instruction during the pregnancy period. The concept of 'Hot' and 'Cold' food is prevalent in the tribe. The food items have been characterized as Hot and Cold as per their effect and feelings after consumption. A pregnant woman is not allowed to take hot food items like meat, eggs, fish, onion, garlic etc. during various stages of her pregnancy. Similarly, cold food items like pumpkin, kheera, banana, curd, peas, etc. Some of items like papaya, guava, urad, are not consumed due to their harmful nature often caused to abortion. The Jaunsari women also believes that eating cold foods particularly during the last three months of pregnancy would lead to cold labour pains and cause delay in childbirth. The pregnant woman has also certain cravings like consumption of baked clay, raw rice, and lemon (*khatta*).

Enrollment during pregnancy

Table 8.12 indicates that a total of 86.1 percent of married women responded being enrolled during their pregnancy period while 13.8 percentages of women did not get themselves enrolled during pregnancy.

Table 8.12 : Enrollment during Pregnancy

Enrollment during pregnancy	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	11 (84.6%)	09 (90.0%)	11 (84.6%)	31 (86.1%)
No	02 (15.3%)	01 (10.0%)	02 (15.3%)	05 (13.8%)

Those who were not enrolled were probed for reasons. All the women expressed family restriction (decision of husband or in-laws) as a major cause.

Place for Enrollment during pregnancy

As evident from Table 8.13, a total of 83.8 percent women have been found enrolled at Aanganwadi centre during their pregnancy while only 16.1 percent were enrolled at primary health centre. Probably, distribution of supplementary nutrition during pregnancy and lactation period is a reason behind more enrollments at Aanganwadi Centre.

Table 8.13 : Place for Enrollment during Pregnancy

Place for Enrollment during Pregnancy	Women of Reproductive Age Group (N=11)	Pregnant Women (N=09)	Lactating Mother (N=11)	Total (N=31)
AWC	09 (81.8%)	08 (88.8%)	09 (81.8%)	26 (83.8%)
PHC (ANM)	02 (18.1%)	01 (11.1%)	02 (18.1%)	05 (16.1%)
CHC	-	-	-	
Private Hospital	-	-	-	

Place of Delivery and Delivery Performer

During the study married women have been asked about the place of delivery during their pregnancy and about the delivery performer.

Table 8.14 states that a total of 80.5 percent of delivery is carried out at home and only 19.4 percent of delivery performed in a hospital set up by qualified doctor. Against the proportion of home delivery, 44.4 percent is performed by mother-in-law followed by dai (19.4%) and ANM (5.5%). A total of 11.1 percent of women also responded sister-in law as delivery performer. (See Table 8.14)

Some socio-cultural customs or rituals associated with pregnancy in Jaunsaris

- Traditional Dai do not are not inform the expected time of delivery to the family members especially husband as it may increase the time of labour;
- **Baji** or **Dakiya** is called to cut the cord at the some places.
- Women at few places are forced to do more work so that child may not grow up too high and should come out easily
- Eating much during pregnancy would cause problem during the child birth.
- When male members in family become 12 then cultural practices is organized along with feast, use to cut a goat.
- Husband should not be told about the expected date of delivery.

Table 8.14 : Place of Delivery and Delivery Performer

Respondents	Place of Delivery			Delivery Performer				
	Home	Govt. Hospital	Other Specify	Mother in law	Dai	ANM	Doctor	Other, Specify
Women of Reproductive Age Group (N=13)	10 (76.9%)	03 (23.0%)	0	05 (38.4%)	02 (15.3%)	01 (7.6%)	03 (23.0%)	02 (15.3%)
Pregnant Women (N=10)	08 (80.0%)	02 (20.0%)	0	05 (50.0%)	02 (20.0%)	0	02 (20.0%)	01 (10.0%)
Lactating Mothers (N=13)	11 (84.6%)	02 (15.3%)	0	06 (46.1%)	03 (23.0%)	01 (7.6%)	02 (15.3%)	01 (7.6%)
Total (N=36)	29 (80.5%)	07 (19.4%)	0	16 (44.4%)	07 (19.4%)	02 (5.5%)	07 (19.4%)	04 (11.1%)

**My delivery of son was carried out at home by pharmacist of the sub-centre in village.
.....As told by Urmila (woman in reproductive age group) from Dasau village of Chakrata Block**

Preference of place for Delivery

Married women under study have been asked about their preference of place for delivery of child. Surprisingly, 58.3 percent preferred having delivery at home and that too performed by their own family member (mother in law in most cases) followed by those who preferred having delivery at home performed by trained *Dai*. Only 19.4 percent of women have preferred institutional delivery in hospital set up. (See Table 8.15)

Table 8.15 : Preferable for delivery

Preferable place for delivery	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Institutional delivery	03 (23.0%)	02 (20.0%)	02 (15.3%)	07 (19.4%)
Delivery at home by family member	07 (53.8%)	05 (50.0%)	09 (69.2%)	21 (58.3%)
Delivery at home by trained <i>dai</i>	03 (23.0%)	03 (30.0%)	02 (15.3%)	08 (22.2%)

Awareness about '5' Cleans

Unhygienic primitive practices during delivery are one of the major causes of infant and maternal mortality in India especially when a large number of deliveries are being performed in house. ICDS, RCH and various other schemes are persistently promoting the safe practice of five cleans during delivery i.e. clean hands, clean place, clean blade, clean thread and clean cord.

During the study, women have been asked for their awareness about these '5' cleans. Table 8.16 reveals an alarming level of awareness; it shows that as many as 72.2 percent of women were not aware about the '5' cleans to be practiced during delivery at home.

Table 8.16: Awareness about '5' Cleans

Awareness about '5' Cleans	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	04 (30.7%)	02 (20.0%)	04 (30.7%)	10 (27.7%)
No	09 (69.2%)	08 (80.0%)	09 (69.2%)	26 (72.2%)

Complications during Pregnancy

Table 8.17 reveals that 41.6 percent of married women have experienced some kind of complications during their pregnancy whereas 52.7 percent of women ruled out incident of any complications.

Table 8.17 : Complications during Pregnancy

Face any complications during your pregnancy?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	07 (53.8%)	04 (40.0%)	04 (30.7%)	15 (41.6%)
No	04 (30.7%)	06 (60.0%)	09 (69.2%)	19 (52.7%)
NA	02 (15.38%)	-	-	02 (5.55%)

The types of complications as expressed by married women are summarized in the Table 8.18. It shows that more than eighty percent (80.5%) of women have felt weakness or fatigue during the pregnancy while 52.7 percent have experienced constant body pain. Swelling in legs (25.0%) and bleeding during pregnancy (5.55%) have also been reported by the women.

Table 8.18 : Symptoms of Complications during Pregnancy

Complications (multiple responses)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Swelling in Legs	04 (30.7%)	03 (30.0%)	02 (15.3%)	09 (25.0%)
Body Pain	07 (53.8%)	05 (50.0%)	07 (53.8%)	19 (52.7%)
Bleeding during pregnancy	02 (15.3%)	0	0	02 (5.5%)
Weakness/Fatigue	11 (84.6%)	09 (90.0%)	09 (69.2%)	29 (80.5%)

The existing complications could be well correlated with the dietary pattern of women as no extra diet is being consumed during pregnancy which ultimately leading to these complications.

Abortion during Pregnancy

Table 8.19 indicates that a total of 25 percent of women reported the case of abortion during their earlier pregnancy.

Table 8.19: Abortion during Pregnancy

Ever had abortion?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	04 (30.7%)	03 (30.0%)	02 (15.3%)	09 (25.0%)
No	09 (69.2%)	07 (70.0%)	11 (84.6%)	27 (75.0%)

When asked, excessive heavy work during the third trimester of pregnancy comes out as a major reason for abortion. Whereas in one case abortion was suggested by doctor at government hospital as the growth of child was not found proper.

Complication at the time of Delivery

Table 8.20 depicts that a total of 13.8 percent of married women experienced complications at the time of their delivery.

Table 8.20: Complication at the time of delivery

Face any complication at the time of delivery?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	02 (15.3%)	01 (10.0%)	02 (15.3%)	05 (13.8%)
No	11 (84.6%)	09 (90.0%)	11 (84.6%)	31 (86.1%)

When asked for the complications, it was reported that the position of baby got change in womb at the time of delivery and was difficult to handle by delivery performer viz. mother in law or *dai*.

In all the cases of such complication during the time of delivery, the women were taken to hospital.

Practices regarding Post-Delivery Care

Tribal are characterized by their peculiar beliefs and practices for intake throughout the pregnancy. The knowledge is transferred from old generation and is generally practices by the aware or skilled men or women of a family or community. Starting from a gift of god the process of birth is governed by certain beliefs and practices from neonatal to lactating stage. A successful delivery is considered as rebirth of a woman and hence certain prohibition and permission are imposed to protect against evil spirit and supernatural powers.

During breastfeeding the mother is not allowed to consume certain item which may cause harmful effects to new born. During the study it was found that a lactating woman is given special foods only for the first few days after child birth. The special foods given to lactating women are as follows:

1. Khindari: It is prepared by mixing wheat flour and jiggery in boiled water and then cooking them together.
2. Daliya/ Halwa made in Ghee and Jaggery (Gur)
3. Kheda- made up of wheat flour, ghee and jaggery
4. Ajwain water
5. Methi (Fenugreek)
6. Kaachur (Cucumber)

Spicy and cold food (rice, pulses) is found to be avoided upto three months after delivery.

Special diets which are given to the children and women could balance the diet to some extent, but actually they do not get it for a reasonably long period, e.g., lactating mothers are given nutritive food but for too short a time.

Women have also been asked that, 'When the mother and child are allowed to come out of home after delivery?' The responses received are summarized in the table given below. It indicates that more than one-third (38.8%) of the women are allowed to come after completion of twenty days. The destiny of 25 percent of women to come out of house found to be goes with the rituals as told by their religious performer (*pandit*). (See Table 8.21)

Table 8.21: When the mother and child are allowed to come out of home after delivery?

When the mother and child are allowed to come out of home after delivery?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
After 5 days	03 (23.0%)	01 (10.0%)	01 (7.6%)	05 (13.8%)
5 -10 days	02 (15.3%)	-	02 (15.3%)	04 (11.1%)
10-20 days	-	01 (10.0%)	03 (23.0%)	04 (11.1%)
> 20 days	05 (38.4%)	05 (50.0%)	04 (30.7%)	14 (38.8%)
As told by <i>pandit</i>	03 (23.0%)	03 (30.0%)	03 (23.0%)	09 (25.0%)

KNOWLEDGE ABOUT INFANT CARE AND BREASTFEEDING

A majority of the births in rural India take place at home which largely contribute to higher incidence of infant and child mortality. Combating high incidence of infant and child mortality in the home setting has thus become a challenge. Proper infant feeding, starting from the time of birth is important not only for the proper growth of the child, but has a crucial bearing on his/her survival. Child immunization is another important component for reducing the infant and child mortality in rural and tribal areas.

In the present study, an attempt has been made to ascertain the knowledge of married women about infant feeding, child immunization and child care practices.

Child care for the women means suckling baby by the mother and breast feeding usually upto the age of two to three years or till the delivery of the next child. Massaging and giving daily bath to baby is another perception of infant care among women.

Infant Feeding Practices

Proper infant feeding, starting from the time of birth, is important for the physical and mental development of the child. Breast feeding improves the nutritional status of young children and reduces morbidity and mortality. Breast milk not only provides important nutrients but also protects the child from infections. The timing of introduction of supplementary foods in an infant's diet also has a significant impact on the child's nutrition.

When married women were asked about the first feed to new born baby a large number of (66.6%) of the respondents have reported honey as first feed followed by mother's milk (13.88%). If the babies do not accept mother's milk then *Ajwain water* is given to infant as reported by 30 percent of pregnant women and 23 percent of lactating mothers. A small proportion (2.7%) of respondents also reported goat's milk as first feed to new born baby. (See Table 9.1)

Table 9.1: Fed to new born baby for the first time after delivery

Fed to new born baby for the first time after delivery?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Honey	10 (76.9%)	05 (50.0%)	09 (69.2%)	24 (66.6%)
Goat's milk	01 (7.6%)	0	0	01 (2.7%)
Mother's milk	02 (15.3%)	02 (20.0%)	01 (7.6%)	05 (13.8%)
Water	0	0	0	0
Don't know	0	0	0	0
Other	-	03 (30.0%)	03 (23.0%)	06 (16.6%)

When probed about custom or ritual regarding cord care, it was found that mother's milk or ghee is being applied on cord as it supposed to dry the cord early.

Knowledge about Initiation of Breastfeeding

Initiation of breast feeding immediately after child birth is important because it benefits both the mother and the infant. As soon as the infant starts suckling at the breast, the hormone oxytocin is released, resulting in uterine contractions that facilitate expulsion of the placenta and reduce the risk of postpartum hemorrhage.

In order to ascertain the prevailing practices, the women respondents have been asked— 'when should breast feeding be initiated to a new born?' Most of them said that the child should be bathed immediately after birth after cutting the umbilical cord. Depending upon the time involved in this process, a large number of the respondents (41.6 percent) indicated the time for the initiation of breast feeding as more than an hour after birth. (See Table 9.2).

During the discussions with the people too, it emerged that in majority of the villages the newborns are bathed immediately after cutting the umbilical cord and breast feeding starts immediately thereafter.

Table 9.2 : Knowledge about right time of initiation of breastfeeding

Knowledge about right time of initiation of breastfeeding	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Within one hour	01 (7.6%)	03 (30.0%)	03 (23.0%)	07 (19.4%)
One the same day	05 (38.4%)	04 (40.0%)	06 (46.1%)	15 (41.6%)
After 2 day	02 (15.3%)	02 (20.0%)	02 (15.3%)	06 (16.6%)
Don't know	0	0	0	-
Others	05 (38.4%)	01 (10.0%)	02 (15.3%)	08 (22.2%)

Of the total 08 respondents who answered “Others” as the right time of initiation of breastfeeding, 05 respondents have opined that child should be breastfeed immediately after bath of mother and infant whereas 02 respondents relies on the advice of sacred performer (*pandit*) while one respondent said it should be started after five days.(See Table 9.3)

Table 9.3 : Does neonate receive bath just after birth

Does neonate receive bath just after birth?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	13 (100%)	09 (90.00%)	12 (92.30%)	34 (94.44%)
No	0	01 (10.00%)	01 (7.69%)	02 (5.55%)

Knowledge about Colostrum Feeding

Table 9.4 indicates that only 27.7 percent of married women have correct understanding about colostrums feeding whereas 36.1 percent have incorrect and also 36.1 percent of women have no knowledge about colostrum feeding.

Table 9.4 : Knowledge about Colostrum Feeding

What is Colostrum?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Correct	03 (23.0%)	03 (30.0%)	04 (30.7%)	10 (27.7%)
Incorrect	06 (46.1%)	04 (40.0%)	03 (23.0%)	13 (36.1%)
Don't Know	04 (30.7%)	03 (30.0%)	06 (46.1%)	13 (36.1%)

When respondents have been asked about the colostrums, more than three-fourth of them (77.7%) on overall basis) reported that it is generally thrown away as waste and is not given to new born (See Table 9.4).

Table 9.4 : Throwing of Colostrum

Colostrum is being thrown?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	11 (84.6%)	07 (70.0%)	10 (76.9%)	28 (77.7%)
No	02 (15.3%)	03 (30.0%)	03 (23.0%)	08 (22.2%)

However, when asked about the benefits of colostrum to new born, 44.4 percent of women accepted the importance of colostrums and affirmed that it should be given to the infants but still more than 50 percent (52.7%) of women stick to their notion of not giving colostrum to infants while 01 respondent shows its inability to answer the question (See Table 9.5).

Table 9.5 : Awareness about importance of Colostrum

Is it should be given to infant?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	04 (30.7%)	05 (50.0%)	07 (53.8%)	16 (44.4%)
No	09 (69.2%)	04 (40.0%)	06 (46.1%)	19 (52.7%)
Don't Know	-	01 (10.0%)	0	01 (2.7%)

When asked for social taboos regarding colostrum feeding respondents believed that colostrum should not be given to the newborns. When probed for the reasons, their responses are as under:

- ⊗ क्योंकि गन्दा होता है/बदबूदार होता है/बासी होता है।
- ⊗ Because it is dirty/ it stinks/ it is stale.
- ⊗ इसके पीने से बच्चा बीमार/अस्वस्थ रहता है।
- ⊗ Child who is given colostrum becomes sick/ unhealthy
- ⊗ नहीं पिलाना चाहिए, पेट खराब हो जाता है/जमा हुआ होता है, बच्चा उल्टी कर देता है/पेट में कब्ज हो जाता है, बच्चा पचा नहीं पाता है।
- ⊗ It causes stomach disorder/ pain/ vomiting/ child can't digest it.
- ⊗ पहले दूध में कील होती है/गाढ़ा होता है, गले में अटकता है/बच्चे के शरीर में जम जाता है।
- ⊗ It gets stuck in the child's throat/ gets deposited in the body.
- ⊗ क्योंकि यह गन्दा खून होता है, बच्चा बीमार होकर मर जायेगा।
- ⊗ Because it is a dirty blood, child gets ill and may die.

Awareness about Exclusive Breast Feeding

If a child below 4 months of age is given anything other than the mother's milk, it exposes him/her to an enhanced risk of infection which could be fatal. The World Health Organisation (WHO) and UNICEF recommend that infants should be given only breast milk for about the first 6 months of their life. Most babies do not require any other foods or liquids during this period.

In order to ascertain the understanding of the mothers for exclusive breastfeeding, the respondents have been asked to state the feed given to the newborn. The responses are summarized in the Table 9.6.

Table 9.6: Awareness about Exclusive Breast Feeding

Responses	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Only mother's milk	02 (15.3%)	02 (20.0%)	04 (30.7%)	08 (22.2%)
Mother's milk with Ghutti	06 (46.1%)	03 (30.0%)	04 (30.7%)	13 (36.1)
Mother's Milk with Gur, Ghutti & Water	02 (15.3%)	03 (30.0%)	03 (23.0%)	08 (22.2%)
Mother's milk, Ghutti, Ajwain water & Honey	01 (7.6%)	02 (20.0%)	01 (7.6%)	04 (11.1%)
Mother's milk with Ajwain water	01 (7.6%)	0	01 (7.6%)	02 (5.5%)
Mother's milk, Ghutti & Banasea tea	01 (7.6%)	0	0	01 (2.7%)
Don't Know	0	0	02 (15.3%)	02 (5.5%)

Thus a very sizeable proportion of women have shown awareness about exclusive breastfeeding. However, they have their own notion of various 'combinations' to be given to infants.

Awareness about Duration of Exclusive Breastfeeding

Table 9.7 indicates the knowledge level of women about the duration of exclusive breastfeeding. It shows that nearly three-fourth (72.2 percent) of married women accepted that only mother's milk should be given to infant upto a period of six months while 30.7 percent of women in reproductive age and 23 percent of lactating mother opined to give it more than six months. Significantly, 8.3 percent of married women still have notion to give mother's milk only upto two to three months.

Table 9.7: Awareness about duration of Exclusive Breast Feeding

Knowledge about duration of Exclusive Breastfeeding	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
2 -3 months	0	02 (20.0%)	01 (7.6%)	03 (8.3%)
Till 6 months	09 (69.2%)	08 (80.0%)	09 (69.2%)	26 (72.2%)
More than 6 months	04 (30.7%)	0	03 (23.0%)	07 (19.4%)

The data thus indicate that in all the 03 villages combined, a very sizeable proportion of Jaunsari women have knowledge about the importance of exclusive breast feeding (better called breastfeeding) for the first six months of life of a child. As a matter of fact, the practice of giving *Gur*, *Ghutti*, honey, etc. to the newborns is very common in all the villages. A number of interesting responses have been received in the community regarding this practice. A few are cited below.

- गुड़ देते हैं क्योंकि गणेश भगवान को गुड़ अति प्रिय है, बच्चे गणेश का रूप होते हैं।
- Children are a form of Lord Ganesha. Since the Lord Ganesha is very fond of *Gur*, it is given to the newborns
- शहद व गुड़ के साथ राजमा के पत्ते को पीस कर देते हैं, इससे बच्चा दूध पीना नहीं भूलता।
- A mixture of *Rajma* leaves, *Gur* and honey is given to the newborns. It helps them develop taste of milk.
- अजवाइन का पानी देने से हाजमा ठीक होता है।
- Giving *Ajwain* water helps in maintaining the digestion of the child.
- शहद देने से बच्चा मीठा बोलता है।
- Giving honey makes the child soft spoken.

Knowledge about Initiation of Complementary Food

From about six months of age, introduction of complementary food is critical for meeting the protein, energy and micronutrient needs of children. By the age of seven months, adequate and appropriate complementary foods should be added to the infant diet in order to provide sufficient nutrients for optimal growth.

Table 9.8 shows that more than 90 percent (91.66%) of Jaunsari married women have understanding about the right time of initiation of complementary

food which they said as after the period of six months after birth, while 8.3 percent consider two to three months as right time for initiation of complementary food.

Table 9.8 : Knowledge about Initiation time for Complementary food

Knowledge about Initiation time for Complementary food	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
After 2 -3 months	0	02 (20.0%)	01 (7.6%)	03 (8.3%)
After 6 months	13 (100%)	08 (80.0%)	12 (92.3%)	33 (91.6%)
Any Other	0	0	0	-

Awareness about Growth Monitoring of Child

Table 9.9 shows the awareness level of married women about weighing child on regular basis to monitor the growth of the child. It is evident that more than 60 percent (61.1%) of women know the importance of growth monitoring of child while 27.7 percent of women still have wrong notions about weighing infant whereas 11.1 percent do not even have any understanding about growth monitoring.

Table 9.9 : Awareness about Growth Monitoring of Child

Should child be weighed regularly?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	09 (69.2%)	05 (50.0%)	08 (61.5%)	22 (61.1%)
No	04 (30.7%)	03 (30.0%)	03 (23.0%)	10 (27.7%)
Don't know	0	02 (20.0%)	02 (15.3%)	04 (11.1%)

All those women who denied or do not have understanding (nearly 38 percent) about weighing a child were found to be having their magico-religious notion of “Evil’s Eye” regarding weighing a child.

Awareness about Immunization of Child

Complete immunization of children involves vaccination for six serious but preventable diseases viz. tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis and measles.

Table 9.10 presents awareness level of Jaunsari women about child immunization. When asked about the necessity of immunization in children it was heartening to find that a total of more than 97 percent (97.2%) of women have understanding about importance of child immunization and only 7.6 percent of women in reproductive age group have not found it essential.

When probed for the reason it was found that elder women in the family do not find immunization essential and have a superstitious notion of “Evil’s Eye”.

Table 9.10 : Awareness about Child Immunization of Child

Is Immunization Essential for Child	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N= 36)
Yes	12 (92.3%)	10 (100%)	13 (100%)	35 (97.2%)
No	01 (7.6%)	0	0	01 (2.7%)

Regarding the schedule of child vaccination, it was found that all the children are receiving BCG soon after birth also inoculating polio drops but as it is clear from the table given below that there is a sizeable declination in percentage of respondents in immunizing DPT and Measles with Vitamin A supplementation. (See Table 9.11)

It appears that follow up of complete immunization is a major concern among the Jaunsaris._The possible reasons include illness of child during previous doses of immunization and irregular schedule of ANM for immunization either at AWCs or at home.

Table 9.11 : Status of Immunization of Children

Immunization (multiple responses)	Women of Reproductive Age Group (N=13)		Pregnant Women (N=10)		Lactating Mother (N=13)	
	Yes	No	Yes	No	Yes	No
BCG	12 (92.3%)	01 (7.6%)	10 (100%)	0	13 (100%)	0
Polio Drops	12 (92.3%)	01 (7.6%)	10 (100%)	0	13 (100%)	0
DPT	08 (61.5%)	05 (38.4%)	10 (100%)	0	12 (92.3%)	01 (7.6%)
Measles with Vit. A	08 (61.5%)	05 (38.4%)	08 (80%)	02 (20%)	08 (61.5%)	05 (38.4%)
No Immunization	01 (7.6%)	12 (92.3%)	0	0	0	0

Place for Immunization of Children

Table 9.12 reveals that AWCs (total 34.2%) and Home (total 28.5%) are the most preferred places among women to get their child immunized whereas 28.5 percent have also preferred PHC and only 2.8 percent goes to private practitioner for immunization. 23.0 percent of lactating mother also mentioned CHC (other category) as preference of place for child immunization.

Table 9.12 : Place for Immunization of Children

Place for Immunization of Child	Women of Reproductive Age Group (N=12)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
At AWC	05 (41.6%)	04 (40.0%)	03 (23.0%)	12 (33.3%)
At PHC	02 (16.6%)	03 (30.0%)	05 (38.4%)	10 (27.7%)
Pvt. Practitioner	01 (8.3%)	-	-	01 (2.7%)
At home by ANM	05 (41.6%)	03 (30.0%)	02 (15.3%)	10 (27.7%)
Other specify	-	-	03 (23.0%)	03 (8.3%)

Prevalence of common diseases among children

In order to know the prevalence of diseases among children, the respondents were asked to indicate common ailments prevalent among their children. For this, no signs were mentioned to them, but a general question was posed— “Did your child suffer from any disease since last month?” The prominent symptoms mentioned by the women are summarized in Table 9.13. It shows that fever, cough and cold are the most common diseases among children. Significantly, Diarrhoea (total 41.6 %) is also a major problem among children. While Fast Breathing/ Pneumonia, Jaundice, Anaemia and Boils are other symptoms existing among children. A single case of polio was also reported during the study.

Table 9.13: Prevalence of common diseases among children

Diseases	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Diarrhoea	06 (46.1%)	01 (10.0%)	08 (61.5%)	15 (41.6%)
Jaundice	01 (7.6%)	-	-	01 (2.7%)
Cough	05 (38.4%)	03 (30.0%)	04 (30.7%)	12 (33.3%)

Fast Breathing/ Pneumonia	01 (7.6%)	-	03 (23.0%)	04 (11.1%)
Boils	01 (7.6%)	-	0	01 (2.7%)
Fever	05 (38.4%)	04 (40.0%)	04 (30.7%)	13 (36.1%)
Cold	05 (38.4%)	04 (40.0%)	03 (23.0%)	12 (33.3%)
Anaemia	01 (7.6%)	01 (10.0%)	-	02 (5.5%)
Any Other	01* (7.6%)	-	-	01 (2.7%)

*One girl was suffering from Polio

Concept about Treatment of Diseases among Children

Table 9.14 reveals that more than sixty percent (63.3%) of women take their children for treatment while 8.3 percent of women refused of any treatment for their child. When probed, they reported disease as a supernatural cause (anger of *Mahasu Devta* or *Evil's Eye*) and could be treated by only making *Mahasu Devta* happy using magico-religious method by some religious performer or elder members of family. While 38.8 percent of women do not take their children for treatment at any place instead obtains self/home treatment.

Table 9.14 : Treatment of Diseases among Children

Whether takes children for treatment?	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Yes	09 (69.2%)	07 (70.0%)	03 (23.0%)	19 (63.3%)
No	02 (15.3%)	-	01 (7.6%)	03 (8.3%)
NA	02 (15.3%)	03 (30.0%)	09 (69.2%)	14 (38.8%)

Those who take their children for treatment when asked to indicate their preference of place, 38.8 percent of women preferred government doctor as their choice of place for treatment whereas 25 percent of women preferred self or home treatment. Interestingly, more than 16 percent (16.6%) of women still continue with their notion of magico-religious method of treatment. A sizeable proportion of women (11.1%) also go to private practitioner for treatment of their children. Surprisingly, no women have reported taking treatment with ANM as their choice (See Table 9.15)

Table 9.15: Place for Treatment

Place for treatment	Women of Reproductive Age Group (N=11)	Pregnant Women (N=10)	Lactating Mother (N=12)	Total (N=36)
Self/Home treatment	03 (27.2%)	03 (30.0%)	03 (25.0%)	09 (25.0%)
Traditional healer	-	-	-	-
Magico-Religious Performer	02 (18.1%)	02 (20.0%)	02 (16.6%)	06 (16.6%)
ANM	-	-	-	-
Pvt Practitioner	01 (9.0%)	01 (10.0%)	02 (16.6%)	04 (11.1%)
Govt. Doctor	05 (45.4%)	04 (40.0%)	05 (41.6%)	14 (38.8%)

Thus, the important unit of ICDS and Health services i.e AWW and ANM who supposed to be act as an entry point in availing nutrition and health services needs to be further strengthened in terms of interaction with community so that more and more beneficiaries are made to avail of the services available.

Knowledge about management of Diarrhoea

Diarrhoea is characterized by frequent passage of watery stools. This causes loss of water and nutrients from the body which can lead to death. In India, diarrhoea kills approximately 6,00,000 children below five year of age every year. It is essential for family members, especially mothers, to have knowledge about prevention and appropriate management of diarrhoeal cases. Considering the fact, we also probed their knowledge regarding management of diarrhoea.

Almost one-fifth of the women in the intervention villages were unable to tell anything about primary treatment of diarrhoea. Those who could tell one thing having good literacy level or the other, their major responses are mentioned in the box given below —

- खिचड़ी खिलानी चाहिए/मूंग की दाल की/दलिया/हल्का भोजन
- Should be given light food/ Khichadi/ Moong Dal/ Daliya
- ओ0आर0एस0/जीवन रक्षक घोल पिलाना चाहिए
- Should be given ORS/ Life saving solution
- नमक चीनी का घोल देना चाहिए/चीनी-पानी देना चाहिए
- Should be given solution of salt and sugar/ sugar and water.
- दवाई देनी चाहिए/डॉक्टर के पास ले जाना चाहिए
- Should be given medicine/ taken to a doctor
- पुदीने और प्याज का रस देना चाहिए
- Should be given juice of mint and onion
- दही/दही-चीनी देना चाहिए
- Should be given curd/ curd with sugar.
- उबला पानी देना चाहिए
- Should be given boiled water.
- काली चाय बिना दूध की/कड़वी का पानी देना चाहिए
- Should be given black tea (without milk)
- नींबू/नींबू-नमक का पानी देना चाहिए
- Should be given lemon water/ lemon water with salt
- दाल का पानी देना चाहिए
- Should be given *Dal* water
- पुदीने का रस पानी में डालकर देना चाहिए
- Should be given mint juice with water
- दही तथा चावल को मिला कर देना चाहिए/दूध में चावल देना चाहिए
- Should be given rice and curd/ rice and milk

As stated above, diarrhoea causes loss of water and nutrients from the body and leads to dehydration which is dangerous and can be fatal. One of the important elements in diarrhoea management is to control the dehydration by giving the WHO recommended ORS. Although some of the above treatments come closer to that, these preparations do not contain all the recommended ingredients in right proportion. Therefore, the women who had not mentioned the ORS in the first instance were specifically probed whether they knew how to prepare ORS. Status with regard to knowledge about ORS preparation is presented in the Table 9.16. A total of 33.3 percent of the women are found to

have correct knowledge about ORS preparation while 13.8 percent know incorrectly and more than half of the respondents (52.7%) do not know about preparation of ORS.

Table 9.16 : Knowledge about preparation of ORS

Knowledge about preparation of ORS	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total (N=36)
Correct	05 (38.4%)	03 (30.0%)	04 (30.7%)	12 (33.3%)
Incorrect	01 (7.6%)	02 (20.0%)	02 (15.3%)	05 (13.8%)
Don't know	07 (53.8%)	05 (50.0%)	07 (53.8%)	19 (52.7%)

KNOWLEDGE ABOUT HIV/AIDS

Human Immunodeficiency Virus (HIV) today has infected 2.34 million (NACO, 2007) Indians, with no State free from the virus. To prevent further progression of HIV infection, it is imperative that level of awareness about HIV/AIDS is enhanced significantly by fully involving the community. This is possible only if unprecedented efforts are made to educate and sensitize the population, in general, and the adolescents, in particular.

The present study has attempted to make an assessment of the level of awareness of the Jaunsari adolescent girls and married women. villages. The findings are presented hereunder.

Heard about HIV/ AIDS

Table 10.1 states that as compare to the married women; unmarried adolescent girls have heard more about HIV/AIDS. It shows that more than ninety percent (94.1%) of adolescent girls and 75 percent of married women have heard of HIV/AIDS.

Table 10.1 : Heard of HIV/AIDS

Whether heard of HIV/AIDS	Unmarried Adolescent Girls (N=34)	Women of Reproductive Age Group (N=13)	Pregnant Women (N=10)	Lactating Mother (N=13)	Total Married Women (N=36)
Yes	32 (94.1%)	10 (76.9%)	06 (60.0%)	11 (84.6%)	27 (75.0%)
No	02 (5.8%)	03 (23.0%)	04 (40.0%)	02 (15.3%)	09 (25.0%)

But when it comes to understanding of the HIV/AIDS, open discussions with the respondents have revealed following notions:

<ul style="list-style-type: none"> • एक बीमारी है। • It is a disease • जानलेवा रोग है। • It is a lethal disease • गन्दी बीमारी है। • It is a dirty disease • ऐसी बीमारी है जिसका इलाज नहीं है। • It is a incurable disease 	<ul style="list-style-type: none"> • ऐसी बीमारी है जिसका इलाज केवल पंडितजी कर सकते हैं। • It is a disease which can only be cured by <i>Panditji</i> (Religious performer) • छूत की बीमारी है। • It is a infected disease • ऐसी बीमारी है जो सैक्स करने से होती है। • It is a disease caused due to sexual intercourse • जब शरीर में खून सूख जाता है तब एड्स हो जाता है। • It is caused when blood gets dried in body.
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It is interesting to note that there is no direct relationship between the proportion of respondents who have heard about AIDS and the proportion having correct knowledge about HIV. The above responses indicate that the respondents do not have correct understanding about HIV/AIDS and their knowledge is based on myths and misconception. Thus more efforts are needed to be devised to infiltrate the awareness and correct information about HIV/AIDS.

Source of Information

Those who have heard of HIV/AIDS when asked about the source of information, a high percentage of respondents (66.6%) have reported media (T.V.) as a major source of information followed by friends and ICDS & Health functionaries. (See Table 10.2)

Table 10.2: Source of Information

Source of Information (multiple responses)	Unmarried Adolescent Girls (N=32)	Women of Reproductive Age Group (N=10)	Pregnant Women (N=06)	Lactating Mother (N=11)	Total Married Women (N=27)
Family Elder	-	-	01 (16.66%)	-	01 (3.7%)
Friends	10 (31.25%)	01 (10.00%)	01 (16.66%)	-	02 (7.4%)
ANM	-	01 (10.00%)	02 (33.33%)	03 (27.27%)	06 (22.2%)
AWW	3 (9.37%)	02 (20.00%)	-	02 (18.18%)	04 (14.8)
Media, specify	25 (78.12%)	06 (60.00%)	05 (83.33%)	07 (63.63%)	18 (66.6%)

This confers a suggestion of designing and developing more simple messages at media level using vernacular languages.

Knowledge about Transmission of HIV

Table 10.3 indicates that 87.5 percent of girls and a total of 81.4 percent of women, having heard of HIV/AIDS, have knowledge about transmission of this virus.

Table 10.3 : Knowledge about Transmission of HIV

Knowledge about Transmission of HIV	Unmarried Adolescent Girls (N=32)	Women of Reproductive Age Group (N=10)	Pregnant Women (N=06)	Lactating Mother (N=11)	Total Married Women (N=27)
Yes	28 (87.5%)	08 (80.0%)	05 (83.3%)	09 (81.8%)	22 (81.4%)
No	04 (12.5%)	02 (20.0%)	01 (16.6%)	02 (18.1%)	05 (18.5%)

Although the respondents were encouraged to give as many modes of transmission as they knew, but they were not prompted in any way. Only spontaneous answers were recorded. Table 10.4 presents the awareness level of respondents about the modes of transmission, which states that a large majority of the respondents (82.1 percent adolescent girls and 90.9 percent women) knew unprotected sex as the most likely mode of transmission of HIV. A total of 27.2 percent of married women also considered touching or hand shaking as a mode of HIV transmission. It is also quite evident that even amongst the adolescent girls and married women who have heard about AIDS, a significant number of respondents are not aware of the various modes of its transmission. In particular, the awareness about vertical transmission from mother to child is noted to be low.

Table 10.4 : Modes of Transmission

Modes of Transmission (multiple responses)	Unmarried Adolescent Girls (N=28)	Women of Reproductive Age Group (N=08)	Pregnant Women (N=05)	Lactating Mother (N=09)	Total Married Women (N=22)
Unprotected sex	23 (82.1%)	08 (100%)	05 (100%)	07 (77.7%)	20 (90.9%)
Mother to child Transmission	19 (67.8%)	06 (75.0%)	05 (100%)	03 (33.3%)	14 (63.3%)
Infected syringes / blades	22 (78.5%)	06 (75.0%)	04 (80.0%)	05 (55.5%)	15 (68.1%)
Infected blood transfusion	26 (92.8%)	03 (37.5%)	04 (80.0%)	05 (55.5%)	12 (54.5%)
Touching/shaking hands	-	04 (50.0%)	02 (40.0%)	-	06 (27.2%)

Knowledge about prevention of HIV

Of the total respondents, who have heard of HIV/AIDS, when asked about the various methods of HIV prevention then 93.7 percent of adolescent girls and a total of 88.8 percent married women have found aware about preventive methods as is evident from the Table 10.5 given below:

Table 10.5 : Awareness about prevention of HIV/AIDS

Awareness about prevention of HIV/AIDS	Unmarried Adolescent Girls (N=32)	Women of Reproductive Age Group (N=10)	Pregnant Women (N=06)	Lactating Mother (N=11)	Total Married Women (N=27)
Yes	30 (93.7%)	09 (90.0%)	05 (83.3%)	10 (90.9%)	24 (88.8%)
No	02 (6.2%)	01 (10.0%)	01 (16.6%)	01 (9.0%)	03 (11.1%)

Subjects who heard about the various methods of preventing the transmission of HIV / AIDS when probed, the following emerged as the four major responses in almost all the villages, while a sizeable number of them were unable to mention anything at all. (See Table 10.6)

Table 10.6: Awareness about methods of prevention from HIV/AIDS

Awareness about methods of prevention from HIV/AIDS	Unmarried Adolescent Girls (N=30)	Women of Reproductive Age Group (N=09)	Pregnant Women (N=05)	Lactating Mother (N=10)
Safe sex (use of condom)	24 (80.0%)	07 (77.7%)	05 (100%)	05 (50.0%)
Using sterilized needles and syringes / blades	24 (80.0%)	07 (77.7%)	05 (100%)	06 (60.0%)
Safe blood transmission	17 (56.6%)	03 (33.3%)	02 (40.0%)	03 (30.0%)
Through proper education and awareness	22 (73.3%)	04 (44.4%)	04 (40.0%)	02 (20.0%)
Don't know	02 (6.6%)	01 (11.1%)	-	03 (30.0%)

Use of condom and sterilized syringes are considered to be the two most important methods of prevention of transmission. However, as is evident from the above table, even amongst subjects who have heard about AIDS, a few were found not aware about them.

11.1 PROFILE OF THE RESPONDENTS

Educational Status

- 11.1.1** Unmarried adolescent girls found to be the most literate ones with 17.6 percent having attained education upto primary level, 32.3 percent upto middle level, 29.4 percent upto secondary level while 11.7 percent upto senior secondary or above. Only 2.9 percent of adolescent girls were found illiterate. Jaunsari married women on the other hand, were found comparatively less educated. More than 44 percent (44.4%) were found illiterate and even those who were educated 27.7 percent just knows to read and write, 16.6 percent attained education upto primary level, 5.5 percent upto middle level, 8.3 percent upto secondary and 8.3 percent upto senior secondary and above this level.
- 11.1.2** A majority of less educated girls stated the reason to be 'excessive work at home', few of them attributed it to 'not being permitted by their family members'.

Occupational Status

- 11.1.3** More than 60 percent (63.8%) of married women found unemployed and engaged either in cultivation or household work. A very small percentage (5.55%) of women in all three groups is in service while negligible percentages (2.7%) of women are working as agricultural labour. All the unmarried adolescent girls have found to be sharing hand in cultivation or household work. Thus, notion to work at household and in field has proved to be a barrier in literacy level of adolescent girls and thus making them unaware about various facts of healthy lifestyle.

Bathroom facility at home

- 11.1.4** Significantly, 35.3 percent of adolescent girls and a total of 63.8 percent of married women do not have bathroom facility in their houses.
- 11.1.5** Bathing among Jaunsaris is too related with climate, belief and level of literacy. Due to longer span of cold climate, bathing is not a daily practice among Jaunsaris and is more a matter of ritual and means usually throwing a small quantity of water on the body. Most Jaunsaris do not use soap or any other cleaning agent. Poverty and ignorance are probably responsible for this. The frequency of bathing found higher with increase in education. When asked during discussion they generally do not use soap or detergent for washing the clothes which is necessary for removing the dirt and killing the germs.
- 11.1.6** The fact is further corroborated from the discussions held with doctor at primary health centre of Lakhamandal who revealed that a number of skin diseases are often reported among Jaunsaris because they do not clean their skin regularly and properly. Scabies has found to be the most common disease among them.

Disposal of excreta (Toilet Facility)

- 11.1.7** The study has revealed that 64.7 percent of adolescent girls and a total of 72.2 percent of married women do not have toilet facility in their homes. Respondents have preferred for outdoor defecation in fields.

Source of Drinking Water

- 11.1.8** It is found that all the respondents have municipal supply at home and uses the same for drinking purpose.

11.2 KNOWLEDGE ABOUT HEALTH & HYGIENE

Knowledge about Adolescent Health

- 11.2.1** It is found that most of the girls consider heavy work load and lack of nutritious food intake as a general cause of weakness and fatigue in body, they also lack understanding about the common problems related to menarche and hygiene.

Looking at the awareness level, even among literate ones, it is necessary to strengthen nutritional and health education among tribal adolescent girls under NHED component of ICDS.

- 11.2.1.1** The study has revealed that 35.3 percent of girls have obtained self or home treatment (a tea made of '*banoska*' flower which is supposed to relieve pain during menstruation), while 29.4 percentage of girls approached government doctor at nearby PHC for treatment, 5.8 percent also relies on magico-religious performer for their treatment and a negligible (2.9%) of girls takes their treatment from private medical practitioner or ANM.

One of the interesting taboos noticed during the study that discussing menstrual problem by adolescent girls with anyone in the community is generally perceived negatively and at times linked to the character of the girl. As a result the girls are reluctant to discuss this problem to avoid any stigma.

11.2.2 Knowledge about Anaemia

Study has revealed that more than one-half (52.9%) of the adolescent girls know about anaemia while more than forty percent (47.0%) of girls do not have knowledge about anaemia. Girls who affirmed to have knowledge about anaemia when asked about the possible reasons than 72.2 percent considered it due to inadequate food intake and excessive work load while 61.1 percent thought

blood loss during menstruation and weakness as a cause for anaemia. Magico- religious reasons were also reported by 11.1 percent of girls.

11.2.3 Symptoms of Anaemia

The study has evident that all the 100 percent girls reported to experience symptom of weakness during anaemia, fatigue (72.2%), breathlessness (55.5%), loss of appetite (38.8%) and dizziness (22.2%) percent are the other common symptoms of anaemia as reported by girls. Alarmingly more than half (55.5%) of girls found having no knowledge about symptoms associated with anaemia.

11.2.4 Status of Immunization (TT Vaccination)

Significantly, only 26.4 percent adolescent girls have received immunization after the age of 10 years while a large cohort (73.5%) of girls do not reported to have received any immunization.

11.2.5 Awareness about Immunization

It is found that 52.9 percent of the girls reported to have awareness about TT immunization while 47.0 percent do not have awareness about immunization during adolescence age for girls.

Discussions held with the parents of adolescent girls have revealed that immunization during adolescence is believed to create complication in conception and during pregnancy after marriage. Another notion of considering girls as “*paraya dhan*” does not encourage parents to get their girls immunized during adolescence.

11.2.6 Enrollment of Adolescent Girls at Aanganwadi Centre

During the study, 47.0 percent of girls were found to have enrolled at AWC while 52.9 percent have not done so.

11.2.7 Use of Panties

Study has found that all the adolescent girls and married women under study have found to use panties except one who explained that she feels high temperature around genitals while wearing panty.

11.2.8 Frequency of Use of panties

The study has revealed that 97.0 percent of adolescent girls and a total of 63.8 percent of married women daily use panties while 2.9 percent of girls and a total of 33.3 percent uses panties only during menstruation.

11.2.9 Frequency of Washing Panties.

The study has revealed that only 20.5 percent of adolescent girls wash their panties on daily basis while 50 percent wash them once in a two day and 2.9 percent wash it once in a fortnight. Amongst married women a total of 34.2 percent wash their panties daily, 31.4 percent once in a two day while 17.1 percent once in a week and 7.7 percent once in a fortnight.

Thus regular cleaning of inner garments is a major concern among Jaunsaris which lead to various skin or reproductive tract infections.

11.2.10 Perception towards menstruation

Study has revealed that more than seventy percent of girls (70.5%) and a total of 91.6 percent of women have considered menstruation as dirty and impure **and therefore**, during this period, **they** - do not enter the kitchen, not perform *Pooja* and keep them aloof. There is also a notion that menstruation is good for health as it removes dirty blood from body. Thus it is significant to note that most of the respondents considered menstruation as dirty and impure.

Thus there is a definite need to educate the girls regarding adolescent health and hygiene. They also need proper counseling about the various natural changes that occur during this period.

11.2.11 Problems during menstruation

Study has revealed that nearly three-fourth (75%) of the adolescent girls who have attained their menarche reported to have faces some kind of physical problem during menstruation.

Lower abdominal pain (88.8%), backache (66.6%) severe pain (50.0%) and foul smell (11.1%) were the common problem during menstruation found among girls.

11.2.12 Hygiene during Menstruation

Study has revealed that a major proportion of girls (62.5%) and women (80.5%) use clean cloth during the menstruation while 37.5 percent of adolescent girls and 11.1 percent of married women use market based sanitary napkins. A small proportion (8.3%) of married women also uses cotton and gauze during menstruation.

Significantly, it has been also found that of the respondents who use cloth during menstruation, 13.3 percent of adolescent girls and 34.4 percent of married women concurred about its reuse.

A notion has also been observed among adolescent girls that purchasing sanitary napkins from market ruin their image in the community.

Study has found economical factor as a foremost reason for not using sanitary napkins among the respondents. Thus low cost sanitary napkins should be encouraged.

11.3 KNOWLEDGE ABOUT REPRODUCTIVE HEALTH

11.3.1 Knowledge about Correct Age of Marriage

Significantly, 11.7% of adolescent girls, and a total of 19.4% of married women found to have incorrect knowledge whereas 80.2% of adolescent girls and a total of 80.5% of married women affirmed to know the correct answer of legal age of marriage of girl.

11.3.2 Knowledge about Correct Age of Conception of first Child

It has been found that 85.3 percent of adolescent girls and a total of 75 percent of women have knowledge about correct age of first conception while 14.7 percent girls and 25 percent of women do not know the correct age.

More than one third (34.4 percent) of adolescent girls reported 22 year as age for first conception followed by 20.6 percent considering 20 years. Amongst married women a total of 44.4 percent considered 20 years as age for conception of first child. 6.8 percent of girls and 10 percent of women also believes 18 years and more than 25 years as age of first conception. Significantly, 14.2 percent of pregnant women consider 16 year as age for bearing of first child.

Thus marriage of girl in early years found to be common practice in a small proportion of Jaunsaris.

11.3.3 Knowledge about gap of years between marriage and conception of first child

The study has found that 35.3 percent of adolescent girls and 44.4 percent of married women have indicated this decision in the hand

of husband or in-laws. 23.5 percent of girls and 13.3 percent of women consider one year as an ideal gap.

Only 29.4 percent of girls and 33.3 percent of married women also responded nearly correct information of a gap of two to three year.

Alarming, 11.7 percent of girls and 15.3 percent of women in reproductive age group found not having any knowledge about gap of years between marriage and conception of first child.

11.3.4 Knowledge about Birth Gap between Two Children

Nearly forty one percent (41.1 percent of girls and 41.6 of women) have correct knowledge of a gap of two year between two children. Also, significant number of respondents (29.4 % of girls and 13.8 % of women) reported a gap of only one year as correct information. While 2.9 percent of girls and 8.3 percent of women found not having knowledge about the birth gap between two children.

11.3.5 Awareness about Methods of Family Planning

It has been found that more than 90 percent (91.1%) of adolescent girls and a total of 88.8 percent of married women concurred having knowledge about methods of family planning. However, 8.8 percent of girls and a total of 11.1 percent of married women lacked any information about family planning methods.

Further, the study has revealed that among family planning methods, use of condom for men is considered to be the most popular method (70.9 % girls and 93.7% women) followed by vasectomy (35.4 % girls and 62.5 % women) while for the women use of contraceptive pills (100 % girls and women), copper-t and tubectomy (both 83.8 % girls and 93.7 % women) are considered as popular methods for family planning. A small proportion (6.4%) of

adolescent girls with higher literacy level also knows about the vaccination (*Dimpa*) method of family planning.

11.4 KNOWLEDGE ABOUT MATERNAL HEALTH

11.4.1 Awareness about Ante Natal Care

The study has found that a large majority of women (86.1%) have knowledge about the need and importance of antenatal care and considered it necessary during pregnancy. While a sizeable small number (13.8%) of the women found not having awareness about antenatal care.

11.4.2 Awareness about Services for Pregnant Women

Study has revealed that as many as 88.8 percent of women were aware about services for pregnant women while 11.2 percent had no knowledge about these services.

It has been found that supplementary nutrition (100%) and immunization (53.1%) are the most popular services known by the women followed by Double Ration and Daliya & Salt (34.3% each).

Surprisingly, only 9.3 percent of women knew about free antenatal checkup as a health service in all the three intervention villages of Chakrata Block.

11.4.3 Awareness about places of availability of services for pregnant women

Study has found that as high as 88.8 percent of women knew Aanganwadi Centre as the place for availability of services for pregnant women while 27.7 percent women have reported Primary Health Centre and Government Hospitals (8.3%) for these services.

Significantly, more than 11 percent (11.1%) of women were found not aware of the places for availability of these services.

11.4.4 Age of Conception

Study has revealed that one forth (25 %) of women got conceived first time at the age of 16 year followed by 17 years (19.4%), 18, 20 and 21 years (13.8% each).

Only 15.3 percent of women in reproductive age group answered 15 year as their age of first conception. Thus early marriage and early conception is a major issue among Jaunsaris.

11.4.5 Status of Antenatal Check up

It has been found that more than sixty percent (61.1%) of women had undergone antenatal checkup during pregnancy while significantly one third (38.8%) of the women did not undergo any antenatal checkup.

Study has revealed that lack of awareness (71.4%), denial of In-laws (35.7%) and unavailability of health services (14.2%) were the major reasons among women who have not received any antenatal check up.

Thus lack of awareness and denial of husband or in-laws are the major factors are contributing heavily in deteriorating the health status of Jaunsari women

11.4.6 Utilization of Health Services during Pregnancy

The study has shown that only 36.1 percent of women got themselves registered during pregnancy and 27.7 percent of women received TT immunization while only 16.6 percent women consume IFA tablets during pregnancy.

It has been also revealed that one third (30.5%) of women received double ration and 27.7 percent undergone regular weight monitoring during pregnancy.

A sizeable number (36.1%) of women had specified abdomen check up by ANM as a service availed by them.

Thus the result has revealed a matter of serious concern regarding antenatal care during pregnancy among Jaunsari women.

11.4.7 Awareness about Care during Pregnancy

The study has revealed that considerably small number of women had awareness about an ideal measure of having more diet (44.4%), more rest (36.1%), and gaining more weight (13.8%) during pregnancy.

Significantly, less rest (8.3%), less weight gain (2.7%) and doing less heavy physical work (36.1%) were also suggested by women as ideal measures.

However, having normal diet (44.4%), normal rest (41.6%), a normal gain in weight (36.1%) and keep doing heavy physical work normally (44.4%) were also answered by the respondents.

A small number of women do not have any awareness about role of diet (19.4%), rest (11.1%), weight gain (19.4%) and heavy physical work (16.6%) during pregnancy.

Against the ideal measures to be taken care of during pregnancy only eleven percent (11.1% each) of women found practicing having

more diet and more rest while 8.3% of women practice gaining more weight and interestingly doing more physical work (22.2 %).

Alarming, practice of having less diet (38.8%), less rest (41.66%) and less gain in weight (33.3%) during pregnancy were also found among women.

A large cohort of women found practicing normal diet (47.2%), normal rest (44.4%), normal gain in weight (55.5%) and doing heavy physical work normally (52.7%) during pregnancy.

11.4.8 Awareness about Diet during Pregnancy

Study has revealed that only 27.7 percent of women take extra diet during pregnancy while significantly high percentage (72.2%) of women ruled out the concept of extra diet.

Interestingly, no special food have found to be consumed during pregnancy rather frequency (four times a day) of meal is being added whatever is being eating as routine diet.

11.4.9 Enrollment during pregnancy

Study has found that a total of 86.1 percent of married women were enrolled during their pregnancy period while 13.8 percentages of women did not get themselves enrolled during pregnancy.

11.4.10 Place for Enrollment during pregnancy

It has been found that more than eighty percent (83.8%) of women were enrolled at Aanganwadi centre during their pregnancy while only 16.12 percent were enrolled at primary health centre. Distribution of supplementary nutrition during pregnancy and

lactation period is found as a reason behind more enrollments at Aanganwadi Centre.

11.4.11 Place of Delivery and Delivery Performer

It has been found that as high as 80.5 percent of the delivery cases are carried out at home and only 19.4 percent of deliveries are performed in the hospital by qualified doctor.

Against the proportion of home delivery, 44.4 percent is performed by mother-in-law followed by dai (19.4%) and ANM (5.5%). A total of 11.1 percent of women also responded sister-in law as delivery performer.

It has been also found that more than half (58.3%) of women preferred to have delivery at home and that too performed by their own family member (mother in law in most cases) followed by those who have preferred delivery at home performed by trained *dai*.

Only 19.4 percent of women preferred institutional delivery in hospital set up.

11.4.12 Awareness about '5' Cleans

The study has revealed that as many as 72.2 percent of women were not aware about the '5' cleans to be practiced during delivery at home.

11.4.13 Complications during Pregnancy

Study has revealed that nearly forty percent (41.6%) of women experienced some kind of complications during their pregnancy whereas 52.7 percent of women ruled out incident of any complications.

It has also shown that more than eighty percent (80.5%) of women feels weakness or fatigue during the pregnancy while 52.7 percent experienced constant body pain. Swelling in legs (25.0%) and bleeding during pregnancy (5.5%) were also reported by the women.

The existing complications found to be correlated with the existing dietary pattern of women as no extra diet is being consumed during pregnancy which ultimately leading to these complications.

11.4.14 Abortion during Pregnancy

Study has found that a total of 25 percent of women reported the case of abortion during their earlier pregnancy.

11.4.15 Complication at the time of Delivery

Study has also revealed that a total of 13.8 percent of married women experienced complications at the time of their delivery.

A complication of change in position of baby got in womb found at the time of delivery and was found difficult to handle by delivery performer viz. mother in law or *dai*.

In all the cases of complication during the time of delivery, the women were found to be taken to hospital.

11.4.16 Coming out of House after Delivery

More than one-third (38.8%) of the women have found to be allowed to come out of the house only after completion of twenty days.

The destiny of 25 percent of women to come out of house found to be goes with the rituals as told by their religious performer (*pandit*).

11.5 KNOWLEDGE ABOUT INFANT CARE AND BREASTFEEDING

11.5.1 Infant Feeding Practices

Study has revealed that more than sixty percent (66.6%) of women reported honey as first feed. Only 13.8 percent of women have found to give mother's milk.

It has been also found that if the new born baby does not accept mother's milk then *Ajwain water* is given to infant as also reported by 30 percent of pregnant women and 23 percent of lactating mother.

A small proportion (2.77%) of respondent also reported goat's milk as first feed to new born baby.

11.5.2 Cord Care

Study has found that mother's milk or ghee is being applied on cord of newborn as it believed to dry the cord early.

11.5.3 Knowledge about Initiation of Breastfeeding

It has been found that most of the women (41.6 percent on an overall basis) initiate breast feeding after one hour.

Only 19.4 percent of women have found started breastfeeding within one hour.

Interestingly, 13.8 percent of women have reported that child should be breastfeed immediately after bath of mother and infant while 8.3 percent of women found relying on advice of the sacred performer to start breastfeed.

11.5.4 Knowledge about Colostrum Feeding

Study has revealed that only 27.7 percent of women found to have correct understanding about colostrums feeding whereas 36.1 percent have incorrect and also 36.1 percent of women have no knowledge about colostrum feeding.

A very high percentage (77.7 % on overall basis) of women found to thrown away the colostrums and found not giving to new born

Though, a total of 44.4 percent of women found to know the importance of colostrum and affirmed that it should be given to the infants but more than 50 percent (52.7%) of women stick to their notion of not giving colostrum to infants.

11.5.5 Awareness about Exclusive Breast Feeding

The study has shown that only 22.2 percent of women were aware about exclusive breastfeeding while majority (36.6%) of women have preferred giving *Ghutti* with mother' milk to the new born.

A sizeable proportion of women have also preferred Mother's Milk with *Gur*, Ghutti & Water (22.22%), Mother's milk, Ghutti, *Ajwain* water & Honey (11.11%), Mother's milk with *Ajwain* water (5.55%) and Mother's milk, Ghutti & Banasea tea (2.77%).

A total of 5.5 % of women do not have any knowledge about exclusive breastfeeding.

11.5.6 Awareness about Duration of Exclusive Breastfeeding

As many as 72.2 percent of women were aware about the correct duration of exclusive breastfeeding i.e upto six months.

Significantly, a total of 8.3 percent of married women found having notion of giving mother's milk only upto two to three months.

11.5.7 Knowledge about Initiation of Complementary Food

The study has revealed that more than 90 percent (91.6%) of women found to have correct knowledge about the right time of initiation of complementary food i.e. after the period of six months while 8.3 percent consider two to three months as right time for initiation of complementary food.

11.5.8 Awareness about Growth Monitoring of Child

Nearly 60 percent (61.1%) of women knows the importance of growth monitoring of child while 27.7 percent of women found to have wrong notions about weighing infant whereas 11.1 percent do not even have awareness about growth monitoring.

Those women who denied or do not have knowledge (nearly 38 percent) about growth monitoring of child placed magico-religious notion of evil's as a major reason.

11.5.9 Awareness about Immunization of Child

It has been heartening to find that more than 97 percent (97.2%) of women were aware about importance of child immunization and only 7.69 percent of women in reproductive age group do not find it essential.

Notion of evil's eye have found to be major reason behind not immunizing the children.

It has been found that all the children receives BCG and polio drops soon after birth but a sizeable declination was found immunizing the child with DPT, and Measles with Vitamin A supplementation.

Illness of child during previous immunization and irregular schedule of ANM found to be the major reason for this declination. Thus complete immunization is a concern among the Jaunsaris.

11.5.10 Place for Immunization of Children

Study has revealed that AWCs (34.2%) and home (28.5%) have found to be the most preferred places among women to get their child immunized whereas 28.5 percent have also preferred PHC and only 2.8 percent goes to private practitioner for immunization. 23.0 percent of lactating mother also mentioned CHC (other category) as place for child immunization.

11.5.11 Prevalence of common diseases among children

During the study it has been found that fever, cough and cold were the most common diseases among children. Fast Breathing/ Pneumonia, Jaundice, Anaemia and Boils are other symptoms existing among children. Significantly, Diarrhoea (41.6 %) has also found to be a major problem among children.

11.5.12 Treatment of Diseases among Children

The study has revealed that more than sixty percent (63.3%) of women take their children for treatment while 8.3 percent of women refused of any treatment for their child.

While 38.8 percent of women do not take their children for treatment at any place instead obtains self/home treatment.

It has found that disease among is considered as a supernatural cause (anger of *Mahasu Devta* or *Evil's Eye*) and could be treated by only making *Mahasu Devta* happy using magico-religious method by some religious performer or elder members of family.

Amongst, who take their children for treatment it was found that 38.88 percent of women preferred government doctor as their choice of place for treatment whereas 25 percent of women prefers self or home treatment.

Nearly 16 percent (16.6%) of women still continue with their notion of magico-religious method of treatment.

Small number of women (11.1%) also goes to private practitioner for treatment of their children.

Surprisingly, no women have reported taking treatment with ANM as their choice.

11.5.13 Knowledge about management of Diarrhoea

It has been found that a total of 33.3 percent of the women have correct knowledge about ORS preparation while 13.8 percent know incorrectly.

Surprisingly, more than half of the respondents (52.7%) found to have no knowledge about preparation of ORS.

11.6 KNOWLEDGE ABOUT HIV/AIDS

11.6.1 Heard about HIV/ AIDS

Study has revealed that as compare to the married women (75%); unmarried adolescent girls (94.1%) have heard more about HIV/AIDS.

It has been also found that there is no direct relationship between having heard about HIV/ AIDS and having correct knowledge. The responses have indicated the incorrect understanding about HIV/AIDS which are mostly myths and misconception.

Thus more efforts are needs to be devised to infiltrate the awareness and correct information about HIV/AIDS.

11.6.2 Source of Information

Media (T.V.) (72.8%) has found to be a major source of information for HIV/AIDS followed by friends(20.3%) and ICDS & Health functionaries (combined 22%); but have found wrongly interpreted the message or information about HIV/AIDS. This confers a suggestion of designing and developing more simple messages at media level using vernacular languages.

11.6.3 Knowledge about Transmission of HIV

The study has shown that as many as 87.5 percent of girls and a total of 81.4 percent of women, having heard of HIV/AIDS, have knowledge about transmission of this virus.

It has been found that 82.1 percent of adolescent girls and 90.9 percent women knew unprotected sex as the most likely mode of transmission of HIV. A total of 27.2 percent of married women also considered touching or hand shaking as a mode of HIV transmission while 67.8 percent of girls and 63.3 percent of

women also knew about vertical transmission of HIV from mother to child.

11.6.4 Knowledge about prevention of HIV

It has found that of the respondents who have heard of HIV/AIDS 93.7 percent of girls and 88.8 percent of women know about preventive methods.

Use of condom (72.5%) and sterilized syringes (75%) has been considered to be the two most important methods of prevention of transmission.

A total of 6.6 percent of girls and 30 percent of women has found not having knowledge about preventive methods at all.

RECOMMENDATIONS

The study has shown that poor living conditions of the tribal adolescent girls and women among Jaunsaris are still prevalent. As a result of which some of the health & hygiene practices which are necessary for a hygienic and disease free life are still affecting their overall health status. Although the situation essentially emanates from their traditions and customs but has an adverse affect on their health status. It is therefore, necessary to initiate measures in the tribal areas which will enable them to enhance their understanding of health and hygiene practices and, at the same time, encourage use of available modern health facilities.

- It is recommended that extensive educative/ awareness campaigns by the paramedical staff and women social workers be deployed in the tribal areas to generate necessary awareness regarding health and hygiene.
- A systematic action plan for propagating the construction and use of toilets needs to be included as an essential element of health and hygiene programmes. Under this component the emphasis has to be both on awareness and accessibility. Since it also requires an attitudinal change, awareness campaigns followed by appropriate incentives such as subsidy for construction of low- cost, easy to use toilets will be helpful.
- In view of the fact that the general level of awareness about different aspects of health and hygiene (adolescent health, reproductive health, maternal health, infant care and breastfeeding and HIV/AIDS) covered in this study has been found to be low, it is imperative to introduce informal education system which may be helpful in improving their knowledge level. It goes without saying that once the level of knowledge of the tribal girls and women is enhanced it will

bring a change in mind-set and automatically help them make use of available facilities.

- Since the economic level of tribal population is too low to permit them to either purchase medicines or sanitary napkins etc. to maintain a healthy way of life even if they have knowledge about this. It is therefore, recommended to introduce a supply of low cost items through public private partnership basis and made available to them on subsidized rate. This work could be coordinated at PHC/ AWC level.
- The study has confirmed that many of the health practices (reproductive health, maternal health, infant care and breastfeeding) among tribals are overshadowed by traditional beliefs and customs; As a result, they are not able to take full advantage of the service which are available under different schemes such as ICDS, RCH, NRHM etc. It is therefore recommended that social marketing of these programmes among the tribal communities is taken up on priority basis.
- At the same time the component of social education has to be implemented in such a way that tribal girls and women would be able to understand the utility of adopting available services rather continuing primitive traditional systems.
- The role of ICDS and PRI has to be sharpened for better results. In other word, it means that the Panchayat set up and ICDS programme will have to be appropriately strengthened so as to activate the delivery mechanism on the one hand and community participation on the other. For example, the NHED component under ICDS can go a long way.
- There is a need to adopt a composite approach whereby different schemes dealing with the component of health and hygiene are encouraged to work in tandom and engage themselves in activities which are beneficial to the community as a whole.

- Since the different services available under the health sector are still fragmented and inaccessible to the tribal population, an integrated approach will have to be evolved for the tribal societies. For this purpose inter scheme coordination committees at different level be established. The approach has to be essentially professional and community based.
- The study has observed a gap among the ICDS and Health functionaries in communicating the accurate messages of different services to the tribal folks to bring out a behavioural change in their health care practices. It is, therefore, recommended to build the capacities of ICDS and Health workers in terms of developing common messages in vernacular languages for social and behaviour change communication to facilitate in meeting out the objectives of different schemes.

REFERENCES

1. 'Census of India' 2001
2. National Family Health Survey 2005-06
3. Agarwal, Madhu ' A study on Impact of Iron Folic Acid along with Vitamin C on Haemoglobin status of Adolescent Girls in an ICDS Block' NIPCCD, Regional Centre, Lucknow 2009
4. Basi, Salil et. al. 'Study for Socio-cultural, Demographic Characteristics, Maternal and Child Health and Sexually Transmitted Diseases among the Polyandrous Jaunsaris of Jaunsar-Bawer, Dehradun' (Mimeo, NIHFW), 1993
5. Basu, S.K. 'Health Status of Tribal Women in India; * Status paper for the national Workshop on "Status of Tribal Women in India" organised by Council for social Development, New Delhi and sponsored by National Commission for Women, New Delhi (22-23 Dec'93)
6. Basu, Salil 'Tribal Health in India' , (Edited by Salil Basu), Manak Publications Pvt. Ltd. Delhi, 1994
7. Leela, M Sai & Busi ,B. R: 'The Effect of Physiological State on the Nutritional Status of Women'. Man in India. Sept 1995. 75(3).p.221-229.
8. Paul, Dinesh 'Knowledge and Practices of Adolescent Girls regarding Reproductive Health with Special Emphasis on Hygiene during Menstruation', NIPCCD, New Delhi
9. Rizvi, S.N.H. 'Health Practices of Jaunsaris- A Socio-Cultural Analysis', in the Book ' Tribal Health', Edited by Buddhadeb Chaudhuri, Inter- India Publications, New Delhi, 1986
10. Sachchidananda 'Socio-Cultural Dimensions of Tribal Health', in the Book ' Tribal Health in India', Edited by Salil Basu), Manak Publications Pvt. Ltd. Delhi, 1994
11. Vidyarthi, L.P. & Rai, B.K., 'The Tribal Culture of India', Concept Publishing Company, New Delhi, 1985

ANNEXURES

A Study on Socio- Cultural Barriers in Adopting Safe Reproductive and Child Health Practices in a Tribal Block of Uttaranchal

(Schedule for Unmarried Adolescent Girls) (Schedule No. _____)

General Profile:

- 1) Name of the respondent: _____
- 2) Age of the respondent:
 - 1) 10 to 14 years
 - 2) 15 to 19 years
- 3) Educational qualification of respondent:
 - 1) Illiterate
 - 2) Knows to read and write
 - 3) Primary
 - 4) Middle
 - 5) Secondary
 - 6) Sr. Secondary & Above
- 4) If left school then specify the reason for dropout

- 5) Type of occupation of the respondent
 - 1) Cultivation
 - 2) Agricultural Labour
 - 3) Service
 - 7) Not Applicable
 - 4) Self-Employed
 - 5) Casual Worker
 - 6) Unemployed / House hold Work
 - 8) Any other, specify _____

Family Profile:

- 6) Name of the family head: _____
- 7) Type of Family:
 - 1) Nuclear
 - 2) Joint
 - 3) Extended

9) Information of family members : (Starting with Head of the family)

No.	Name	Relation with family head	Age	Sex	Marital Status	Education	Occupation	Annual Income
1								
2								
3								
4								
5								

Relation Code	0= Self 4= Chacha/ chachi/ Tau	1= Father/ Mother 5= Cousin/ Nephew	2= Brother/ Sister 6= Other	3=Dada/Daadi/ Nana/Nani
Sex Code:	1= Male	2= Female		
Marital Status Code	1= Married	2= Unmarried	3= Widow/ widower	
Educational Status Code	1= Illiterate 5= Secondary	2) Know to read and write 6= Sr. Secondary & Above	3= Primary	4= Middle
Occupation Code	1= Cultivation 5= Casual Worker	2= Agricultural Labour 6= Unemployed / House hold Worker	3= Service 7= Not Applicable	4= Self-Employed 8= Any other

Household Characteristics

- 10) Kind of House 1) Puckka 2) Kuccha 3) Semi-Puckka
- House Ownership 1) Own House 2) Rented House
- Whether the house has separate kitchen 1) Yes 2) No
- Main fuel for cooking
- 1) Firewood/ Cow dung 2) Coal 3) Kerosene
- 4) Gas 5) Electricity
- Surroundings:
- 1) Clean 2) Congested 3) Open areas
- 4) Puddles around the house 5) Any other (specify)
- Bathroom facility at home (1) Yes (2) No
- Toilet facility at home (1) Yes (2) No
- If no, is there a community toilet: (1) Yes (2) No (3) Open space
- If yes, whether the community toilet is being utilized (1) Yes (2) No
- Source of water used:
- 1) Natural Spring/Waterfall 2) River 3) Municipal supply
- 4) Hand pump 5) Any other (specify)

HEALTH AND NUTRITION

What are the common health problems among the adolescent girls in your community and what could be the possible reason for them

Symptoms	Reason

Where do you approach for getting treatment of these common ailments?

- 1) Self/ Home Treatment 2) Traditional Healer 3) Magico- Religious Practitioner
- 4) Pvt. Medical Practitioners 5) ANM 6) Govt. Doctor 7) Any other, Specify _____

Do you know about anaemia 1) Yes 2) No

If yes, what

What could be the possible reasons for anaemia (let them answer first, else give options given below)

- a) Bleeding during menstruation
- c) Magico-Religious causes
- e) Excessive work load
- g) Don't know

- b) Food intake deficiency
- d) Stomach Worming
- f) Weakness
- h) Any other _____

What are the common symptoms of anaemia (let them answer first, else give options given below)

- | | | |
|--------------------|---------------|-----------------------|
| a) Weakness | b) Fatigue | c) Dizziness |
| d) Loss of hunger | e) Breathless | f) Numbness and itchy |
| g) PICA | h) Don't Know | i) All of above |
| j) Any other _____ | | |

Have you received any immunization after the age of 10 years Yes (1) No (2) 3) Don't Know

If yes, give details _____

Are you aware of the immunization for adolescent girls Yes (1) No (2)

Are you enrolled at Aanganwadi Center Yes (1) No (2)

REPRODUCTIVE HEALTH

What do you understand by girl's reproductive health

At what age do girls get married in your community _____

Do you know the correct legal age of marriage for girls (1) Yes (2) No

If yes, what is the age of marriage for - Boys _____ Girls _____

Do you know the correct age of bearing child for first time (1) Yes (2) No

If yes, what it is _____

After how many years of marriage a women should conceive

- | | |
|--------------------------------------|---------------|
| 1) Within 1 year | 2) 2-3 years |
| 3) At the will of husband or In-laws | 3) Don't know |
| 4) Any other _____ | |

How many children one should have after marriage

- | | | |
|------------------|---------------|--------|
| 1) No children | 2) Only one | 3) Two |
| 4) More than Two | 5) Don't know | |

How much birth gap should be there in between two children

- | | | |
|---------------------------------|---------------|---------------|
| 1) One year | 2) Two year | 3) Three year |
| 4) Four or more than four years | 5) Don't Know | |

Do you know any methods of family planning

- (1) Yes (2) No

If yes then specify the methods

For Men Yes (1) No (2)
a) Condom

For Women Yes (1) No (2)
a) Contraceptive Pills

- b) Vasectomy
c) Any other (specify)

- b) Tubectomy
c) Copper - T
(d) Any other (specify) _____

Do you use panties? (1) Yes (2) No

If no, specify reasons _____

If, yes how frequently do you use panties?

1) Daily

2) During the periods

3) Don't use

4) Any Other Specify _____

If yes then where do you wash and dry them.

How frequently you wash them?

1) Daily

2) Once in 2days

3) Once a week

4) Fort-nightly

5) Monthly

6) Any Other Specify

How many panties you have

1) One

2) Two

3) More than two

Have your menstruation started? (1) Yes (2) No

If yes, at what age _____

What is your perception towards menstruation?

Do you think menstruation is dirty and makes you impure or polluted

(1) Yes (2) No

If yes, then why

Is there any cultural practice performed at the time of first period: (1) Yes (2) No

If Yes, explain

What do you use during monthly Periods

1) Sanitary Napkins

2) Cotton and gauze

3) Clean cloth

4) Ash Bags

5) Nothing

6) Any other specify

If you are using cloth do you reuse it (1) Yes (2) No

If Yes, why

If yes then do you take any care for disinfection of cloth

(1) Yes (2) No

If yes then how do you disinfect the cloth

Do you face any kind of problem during menstruation (1) Yes (2) No

If yes, what _____

Have you heard of Reproductive Tract Infections/Sexually Transmitted Diseases (STD)

(1) Yes (2) No

If, Yes What

If, yes then specify source of information

- 1) Family Elder Women 2) Relatives 3) Friends
4) ANM 5) AWW 6) Media, specify _____
7) Any other, specify.....

Did you have any reproductive tract related problem? 1) Yes 2) No

- a) Irregular Menstruation b) Painful Menstruation
c) Lower Abdominal Pain d) White Discharge/ Watery Discharge
e) Foul Smelling Discharge f) Genital Itching
g) Any other, specify.....

If yes, where did you get treated yourself?

- 1) Self / Home Treatment 2) Traditional Healer 3) Magico-Religious
Performer
4) ANM 5) Pvt Practitioner 6) Govt. Doctor
7) Not Applicable 8) Any other, specify _____

If self or home treatment, how

According to you what are the social taboos that inhibits the girls in receiving proper treatment for their reproductive health problems?

HIV/ AIDS

Have you heard of AIDS

(1) Yes (2) No

If, Yes What do you understand by it?

If yes, then source of information

- | | |
|----------------------------|-------------------------------|
| a) Family Elder Women | b) Relatives |
| c) Friends | d) ANM |
| e) AWW | f) Media, specify source..... |
| g) Any other, specify..... | |

Do you know how does HIV/AIDS spread Yes (1) No (2)

If yes, how

- | | |
|--|---------------------------------|
| a) Unprotected Sex | b) Mother to Child Transmission |
| c) Infected needles and syringes/ blades | d) Infected blood transfusion |
| e) Don't Know | f) Touching/ Shaking Hands |
| g) Coughing/ sneezing | h) Dirty Water |
| i) Uncovered Food | j) Any other (specify)..... |

Do you know that it can be prevented Yes (1) No (2)

If yes, how

- | | |
|---------------------------|--|
| a) Safe Sex | b) Not using Sterilized needles and syringes/ blades |
| c) Safe blood transfusion | d) Through proper education and awareness |
| e) Don't Know | e) Any other, explain..... |

Observations

(Signature of the Investigator)

General Profile:

- **Name of the Respondent:**.....
- **Age of the Respondent:**
 - 1) 10 to 15 2) 16 to 20 3) 21 to 25
 - 4) 26 to 30 5) 31 to 35 6) 35 above
- **Educational qualification of Respondent:**
 - 1) Illiterate 4) Middle
 - 2) Knows to read and write 5) Secondary
 - 3) Primary 6) Sr. Sec and Above
- **Type of occupation of the Respondent**
 - 1) Cultivation 4) Self-Employed
 - 2) Agricultural labour 5) Casual Worker
 - 3) Service 6) Unemployed / Household Work

Family Profile:

- Name of the family Head:
- Type of Family:
 - 1) Nuclear 2) Joint 3) Extended
- Type of Marriage
 - 1) Monogamous 2) Polyandrous 3) Polygynous
 - 4) Other, specify _____
- Whether, married within relation 1) Yes 2) No
- If yes, specify _____
- Information of family members: (Starting with Head of the family)

No.	Name	Relation with family head	Age	Sex	Marital Status	Education	Occupation	Annual Income
1								
2								
3								

Relation Code	0= Self 4= Chacha/ chachi/ Tau	1= Father in law / Mother in law 5= Cousin/ Nephew	2= Son/ Daughter 6= Other	3= Brother in law/ Sister in law
Sex Code:	1= Male	2= Female		
Marital Status Code	1= Married	2= Unmarried	3= Widow/ widower	
Educational Status Code	1= Illiterate 5= Secondary	2) Know to read and write 6= Sr. Secondary & Above	3= Primary	4= Middle
Occupation Code	1= Cultivation 5= Casual Worker	2= Agricultural Labour 6= Unemployed / House hold Worker	3= Service 7= Not Applicable	4= Self-Employed 8= Any other

HOUSEHOLD CHARACTERISTICS

- Kind of House
 - 1) Pukka 2) Kuccha 3) Semi-pukka
- House Ownership
 - 1) Own House 2) Rented House

- Whether the house has separate kitchen Yes (1) No (2)
- Main fuel for cooking
 - 1) Firewood/ Cow dung 3) Kerosene
 - 2) Coal 4) Gas
 - 5) Electricity
- Surroundings:
 - 1) Clean 2) Congested 3) Open areas
 - 4) Puddles around the house 5) Any other (specify)
- Bathroom facility at home (1) Yes (2) No
- Toilet facility at home (1) Yes (2) No
- If no, is there a community toilet: (1) Yes (2) No (3) Open space
- If yes, whether the community toilet is being utilized (1) Yes (2) No
- Source of water used:
 - 1) Natural Spring/Waterfall 2) River 3) Municipal supply
 - 4) Hand pump 5) Any other (specify)

REPRODUCTIVE HEALTH

- What do you understand about Women's Reproductive Health

- Do you know the correct age of marriage for girls (1) Yes (2) No
- If yes, what is the age of marriage for - Boys _____ Girls _____
- Do you know the correct age of conception for first time after marriage
 - (1) Yes (2) No
- If yes, what is it _____
- After how many years of marriage a women should conceive
 - 1) Within 1 year 2) 2-3 years
 - 3) At the will of husband or In-laws 4) Don't know
 - 5) Any other _____
- How many children one should have after marriage
 - 1) No children 2) Only one 3) Two 4) More than Two 5) Don't know
- How much birth gap should be there in between two children
 - 1) One year 2) Two year 3) Three year
 - 4) > Four years 5) Don't Know
- Do you know any methods of family planning
 - (1) Yes (2) No

- If yes then specify the methods

For Men Yes (1) No (2)
a) Condom
b) Vasectomy
c) Any other (specify)

For Women Yes (1) No (2)
a) Contraceptive Pills
b) Tubectomy
c) Copper - T
d) Any other (specify)_____

29) Is there any traditional method of family planning existing among your community?

30) Do you use panties? (1) Yes (2) No

31) If no, specify reasons _____

32) If, yes how frequently do you use panties?

1) Daily **2) During the periods**
3) Don't use 4) Any Other specify_____

33) If yes then where do you wash and dry them.

34) How frequently you wash them?

1) Daily **4) Fort-nightly**
2) Once in 2days 5) Monthly
3) Once a week 6) Any Other Specify

35) How many panties you have

1) One **2) Two** **3) More than two**

36) What is your perception towards menstruation?

37) Do you think menstruation is dirty and makes you impure or polluted

(1) Yes (2) No

38) If yes, then why

39) Is there any cultural ritual performed at the time of first period: (1) Yes (2) No

40) If Yes, explain

41) What do you use during monthly periods

1) Sanitary Napkins **4) Ash Bags**
2) Cotton and gauze **5) Nothing**
3) Clean cloth 6) Any other specify

42) If you are using cloth do you reuse it

(1) Yes (2) No

43) If Yes, why

44) If yes then do you take any care for disinfection of cloth
(1) Yes (2) No

45) If yes then how do you disinfect the cloth

46) Have you heard of Reproductive Tract Infections/Sexually Transmitted Diseases (STD)
(1) Yes (2) No

47) If, Yes What

48) If, yes then specify source of Information

- | | | |
|----------------------------|--------------|-------------------------------|
| 1) Family Elder Women | 2) Relatives | 3) Friends |
| 4) ANM | 5) AWW | 6) Media, specify source..... |
| 7) Any other, specify..... | | |

49) Did you have any reproductive tract related problem? 1) Yes 2) No

50) If yes what

- | | |
|----------------------------|-------------------------|
| a) Irregular Menstruation | b) Painful Menstruation |
| c) Lower Abdominal Pain | d) Vaginal Discharge |
| e) Foul Smelling Discharge | f) Genital Itching |
| g) Any other, specify..... | |

51) If yes, where did you get treated yourself?

- | | | |
|------------------------------------|----------------------------|---------------------|
| 1) Self / Home Treatment Performer | 2) Traditional Healer | 3) Magico-Religious |
| 4) ANM | 5) Pvt Practitioner | 6) Govt. Doctor |
| 7) Not Applicable | 8) Any other, specify_____ | |

52) If self or home treatment, how

53) Who take the decision for getting treatment

- | | | |
|------------------------|------------|------------|
| 1) Self | 2) Husband | 3) In-laws |
| 4) Other, specify_____ | | |

54) Do you know that in STI, treatment of both the partner is essential

- | | |
|--------|-------|
| 1) Yes | 2) No |
|--------|-------|

55) According to you what are the social taboos that inhibits the girls in receiving proper treatment for their reproductive health problems?

HIV / AIDS

56) Have you heard of AIDS

- | | |
|---------|--------|
| (1) Yes | (2) No |
|---------|--------|

57) If, Yes What do you understand by it?

58) If yes, then source of information

- | | | |
|----------------------------|--------------------|-------------------------------|
| 1) Family Elder | 2) Women Relatives | 3) Friends |
| 4) ANM | 5) AWW | 6) Media, specify source..... |
| 7) Any other, specify..... | | |

59) Do you know how does HIV/AIDS spread Yes (1) No (2)

60) If yes, how

- | | |
|--|---------------------------------|
| a) Unprotected Sex | b) Mother to Child Transmission |
| c) Infected needles and syringes/ blades | d) Infected blood transfusion |
| e) Don't Know | f) Touching/ Shaking Hands |
| g) Coughing/ sneezing | h) Dirty Water |
| i) Uncovered Food | j) Any other (specify)..... |

61) Do you know that it can be prevented Yes (1) No (2)

62) If yes, how

- | | |
|---------------------------|--|
| a) Safe Sex | b) Not using Sterilized needles and syringes/ blades |
| c) Safe blood transfusion | d) Through proper education and awareness |
| e) Don't Know | e) Any other, explain..... |

PREGNANCY

(Ante Natal Care)

63) Is antenatal care necessary for pregnant women 1) Yes 2) No

64) Do you know any services available for pregnant women 1) Yes 2) No

65) If yes, list out _____

66) If yes, then where do you get these services

- | | | |
|-------------------------|----------------------|--------------------|
| 1) Anganwadi | 2) PHC | 3) Private Doctors |
| 4) Government Hospitals | 5) Private Hospitals | 6) Other (specify) |
| 7) Don't Know | | |

67) At what age you conceived for the first time _____

68) Have you undergone any antenatal check up during pregnancy 1) Yes 2) No

69) If yes, what type of _____

70) If no, why

71) What was the frequency of receiving antenatal check-up services during pregnancy period

Order of children	Once in a Week	Once in a Month	Once in a Three Month	Any other
1				
2				
3				
4				
5				

72) Is there any traditional method of antenatal checkup in this area?

73) What were the services you received during your pregnancy

Services	Number of Pregnancy	Yes	No
Registration			
TT Immunization			
Iron Tablets			
Double Ration			
Health Check Up			
• Weight Monitoring			
• Haemoglobin			
• Blood Pressure			
Any other, specify			

74) If no then explain the reason why?

75) What are the measures you should take during pregnancy

Measures	What should be	What you practiced
Diet		
Rest		
Carrying weight		
Heavy Physical work		
Other (specify)		

More =1

Less= 2

Normal = 3

Don't Know = 4

76) Do you take any extra diet during pregnancy?

(1) Yes (2) No

77) If yes, what _____

78) If no, why _____

79) What are the special food items included during your pregnancy?

80) Is there any inhibition of some food items during pregnancy, explain?

81) Were you enrolled at the time of pregnancy?

(1) Yes (2) No

82) If no then explain the reason

83) If yes then where were you enrolled?

1) PHC

2) AWC

3) Government Hospital

4) Private Hospital

5) Other (specify)

84) Is there any socio-cultural custom or rituals associated with pregnancy?

(Post Natal Care)

85) Where did your delivery performed?

Order of Children	Place of Delivery	Delivery Performer	Remarks
1			
2			
3			

86) What you will prefer for the delivery of a pregnant women

1. Institutional Delivery
person

2. Delivery at home by untrained

3. Delivery at home by trained dai

4. Any other (specify)

87) If delivery at home is opted then do you know about the 5 cleans

(1) Yes (2) No

88) Did you face any complications during your pregnancy

(1) Yes (2) No

89) If yes, what were those

90) Have you had any abortion

1) Yes

2) No

91) If yes, then give details

No of Abortions	Yes (✓)	Reason
1		
2		
3		
4		

92) Did you face any complications at the time of delivery

(1) Yes (2) No

93) If yes, what were those

94) Where did you go for services at the time of complication during pregnancy?

95) Is there any special food/herb given to mother after delivery?

96) What are the practices existing as post-delivery care in this area?

97) When the mother and child are allowed to come out of home after delivery

LACTATION AND CHILD CARE:

98) What do you understand about the Child Care

99) In your family what is being fed to new born baby for the first time after delivery

- | | | |
|----------|----------------|------------------|
| 1) Honey | 2) Goat's milk | 3) Mother's milk |
| 4) Water | 5) Don't know | 6) Other, _____ |

100) Is there any special custom or ritual regarding the cord care?

101) What is the right time to initiate breastfeeding

- | | | |
|---------------------|---------------------|-----------------|
| (1) Within One Hour | (2) On the Same day | (3) After 2 day |
| (4) Don't Know | (5) Other _____ | |

102) What is colostrum

- | | | |
|------------|--------------|---------------|
| 1) Correct | 2) Incorrect | 3) Don't Know |
|------------|--------------|---------------|

103) Whether colostrum is being thrown

- | | | |
|--------|-------|---------------|
| a. Yes | 2) No | 3) Don't know |
|--------|-------|---------------|

104) If yes, why

105) Is it should be given to infant?

- | | | |
|--------|-------|---------------|
| a. Yes | 2) No | 3) Don't know |
|--------|-------|---------------|

106) If any taboo/ practices associated with colostrum feeding, describe it

107) What do you mean by exclusive breastfeeding

108) Till when the child should be exclusively breastfed

- | | | |
|----------------|-------------------|------------------------|
| (1) 2-3 months | (2) Till 6 months | (3) More than 6 months |
|----------------|-------------------|------------------------|

109) If the child is not exclusively breast fed then what else is given

- | | | |
|--------------|---------------------------|--------------|
| a) Top milk | b) Local prepared formula | c) Ghutti |
| d) Water | e) Honey | f) Any other |
| specify..... | | |

110) What is the correct time to initiate complementary foods

- | | | |
|----------------------|--------------------|---------------------|
| (1) After 2-3 months | (2) After 6 months | (3) Any other _____ |
|----------------------|--------------------|---------------------|

111) Does the neonate receive bath just after birth;

- | | |
|--------|-------|
| 1) Yes | 2) No |
|--------|-------|

Specify some associated cultural beliefs, if any.

112) Whether the child should be weighed regularly
2) No 3) Don't know

113) If, no why _____

114) Is immunization necessary for the child
(1) Yes (2) No

115) If no, why _____

116) Did your child receive immunization

Immunization	Yes	No
BCG		
Polio Drops		
DPT		
Measles with Vit. A		
No Immunization		
Other		

117) Where do you go for immunization of children
(1) At AWC (2) At PHC (3) Pvt. Practitioner
4) At home by ANM 5) Other Specify _____

118) Did your child suffer from any disease since last one month?

Symptoms	Yes	No
Diarrhea		
Sepsis		
Jaundice		
Cough		
Fast Breathing/ Pneumonia		
Boils		
Fever		
Cold		
Anaemia		
Any other		

119) Did you get your child treated
1) Yes 2) No

120) If no, why

121) If yes then where did you go for treatment
1) Self / Home Treatment Performer 2) Traditional Healer 3) Magico-Religious
4) ANM 5) Pvt Practitioner 6) Govt. Doctor
7) Not Applicable 8) Any other, specify _____

122) Do you know how to prepare ORS
(1) Correct (2) Incorrect (3) Don't Know

123) Is there any traditional practice regarding childcare existing in this area?

Observations

(Signature of the Investigator)

FGD Checklist for the Stakeholders / Community Leaders/ Health Functionaries

Code / Name of the Respondent:

Date:

Start time:

End time:

Site:

Focus Group Category:

Moderator:

Note Taker

Points of discussion	Responses	Observations
Common Source of income / Occupation <ul style="list-style-type: none"> Dependence on Forest Products Dependence on Animal Products 		
General Hygienic Practices <ul style="list-style-type: none"> Cleanliness around the living area Elements of Personal Hygiene 		
Access to Safe Drinking Water. <ul style="list-style-type: none"> Common Source for obtaining water. Traditional practice related with the cleanliness of drinking water. 		
Importance of Education. <ul style="list-style-type: none"> Education & Gender Discrimination Any cultural Belief related to the education of girls. 		
<ul style="list-style-type: none"> Women Health Age at marriage / Age at Conception & Birth Spacing. Menstruation (Perception and Related Cultural Beliefs) 		
Marriage Practices / Type of Marriages		
Pre and Extra Marital Relations		
Common Health Problems		
Role of Traditional Healers and Magico- Religious Practitioners		
Immunization for mother and Child <ul style="list-style-type: none"> Accessibility to immunization Services. Any Cultural taboo associated with immunization. 		
Pregnancy and Women Health <ul style="list-style-type: none"> Cultural beliefs related to preference or inhibition of any food. Care during pregnancy Complications During Pregnancy. 		
<ul style="list-style-type: none"> Institutional Support Antenatal Check ups Institutional Delivery Referral Services 		

Practices related to Post-Natal Period <ul style="list-style-type: none"> • Bathing and Cord Care of infant • Any Special Food Practice for Mother and Child • Other associated Beliefs 		
Colostrum feeding <ul style="list-style-type: none"> • Related Socio-Cultural Beliefs/Taboos 		
<ul style="list-style-type: none"> • Common Childhood illness • Their Reason and Frequency • Their Common Treatment • ORS solution its preparation and importance 		
Family Planning <ul style="list-style-type: none"> • Related Socio-Cultural Beliefs/Taboos • Infertility and its Treatment 		
<ul style="list-style-type: none"> • Relevance of RTI / STI • Reasons & Related Socio-Cultural Practices • Common Treatments 		
<ul style="list-style-type: none"> • Knowledge of HIV/AIDS • Source of Knowledge • Related Beliefs 		
Effect of health care services <ul style="list-style-type: none"> • There accessibility • There acceptability 		
NGO working in this area		
Folklore, Folk tales and Folk songs Related to RCH		
Tribal Development Plan		
Government Services Available		