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PRE-NATAL HEALTH STATUS OF MARGINAL PEASANT WOMEN OF LACHIGAD WATERSHED, UTTARAKHAND

Introduction

Status of health is one of the important indicators of social wellbeing which shows the level of sustaining optimization in life and functional efficiency for better life style. It is the key to adapt and mitigate physical, psychological and social changes. In the mountainous region;------ health status is closely associated with the physical and climatic situations (Dubos *et al.,* 1992). The World Health Organization (WHO) in 1948 defines *health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity* (Grad, 2002). Reproductive health is a universal concern, but is of special importance for women particularly during the reproductive years in adverse and fragile Himalayan region. Women health cast many impacts on their healthy childhood, good growth in adolescence, and well reproductive adulthood in the society. So, research and analysis of reproductive health according to geographic features has become a diverse field in social science and now it is essential in the development of social, economic, spiritual, and mental well-being (Furutaa and Salway, 2006).

Women have always been a part of the active work force in Uttarakhand. They are the 'invisible' backbone of Indian agriculture' especially in the mountainous region. The males of mountains migrate to either plain areas in search of employment opportunities or are in the armed forces due to unavailability of proper livelihood (Kandari and Gosain 2001). Thus, the entire burden of the household work as well as of the family lies on the shoulders of the women who are left behind in the mountain villages and therefore, agricultural women in this region experience heavy burden of drudgery on them (Shukla and Sharma, 2000). They suffer from heavy work load and higher physiological cost. The poor, uneducated and unaware women in the mountainous region face various challenges to survive (Kumria, 2015). The consequences of the ever-increasing workload of mountain women can be directly witnessed in their declining health status (Dasgupta, 2014).

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Human lifestyle is undoubtedly and closely associated with the physical, mental and social health (Figure 1).

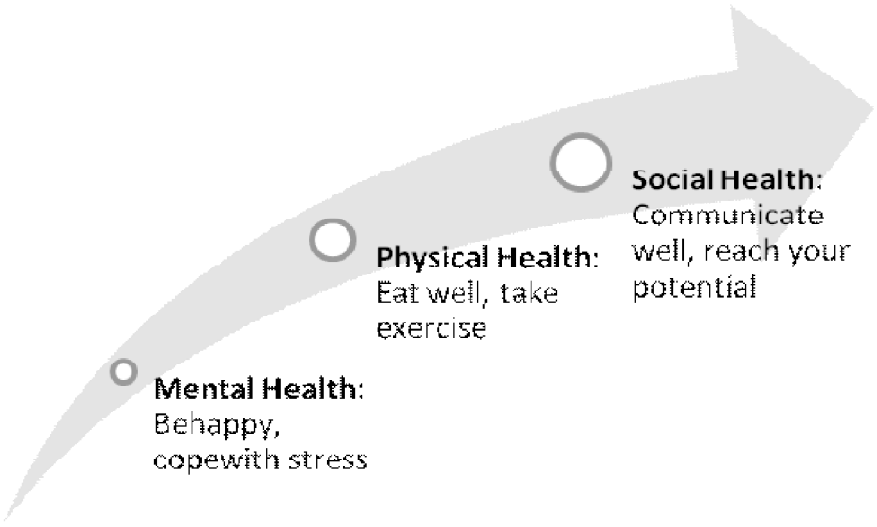


Figure 1: Health Graph

Source: Compiled by Authors, 2017

Study Area

Lachigad watershed is a part of eastern Nayyar river catchment in the central eastern part of Garhwal Himalaya. Within Garhwal Himalaya it comes in Pauri Garhwal district. Pauri Garhwal is a district in Uttarakhand state of India, headquarter is at Pauri. State encompasses an area of 5230 km^2 and situated between 29° 45' N to 30°15'N Latitude and 78° 24' E to 79° 23' E Longitude (Figure 2).

The average annual rainfall in this watershed is 175 cm and about 150 cm to 200 cm of rainfall during the monsoon season, while snowfall occurs during winters. The winter rainfall and snowfall ranges from 15-25 cm. Geographical landscape appeares as forest, agriculture, pasture, barren and waste land (Bandooni and Hasija, 2016). Agriculture and related economic activities are the mainstay of local livelihood in this area. Demographic profile shows that the Percentage of female population is more than the male population in the villages of Lachigad watershed area and about sixty five per cent out of hundred per cent of the female population resides in Sheela Malla village and about fifty five out of hundred per cent female populations resides in Bhainsora village and Mangaro Village (Table 1). Generally, male population has been dominated in Indian society. There is a strong preference for son and girl child tend to be discriminated against by their families in a conservative society.

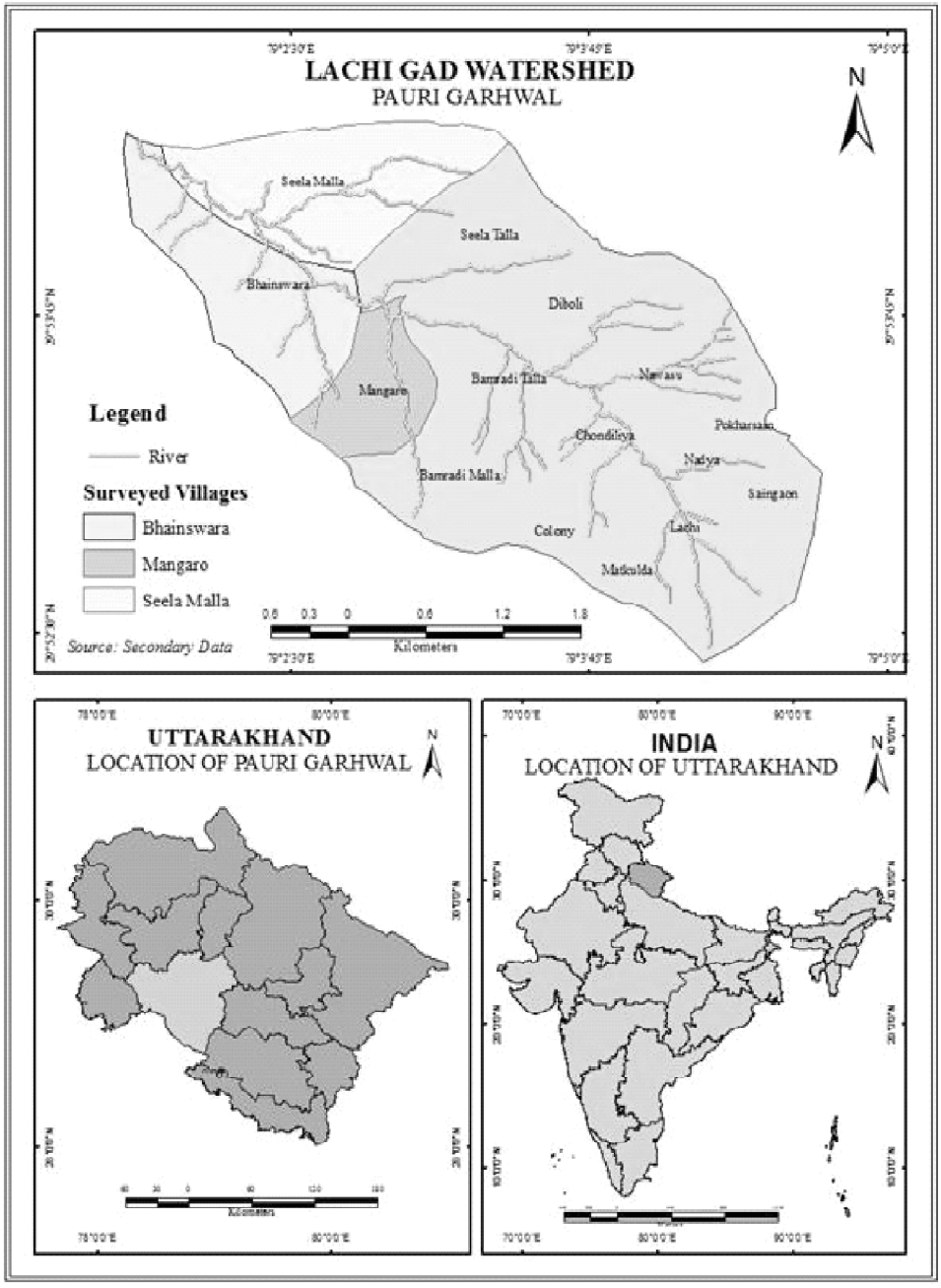


Figure 2: Location Map of Study Area

Source: Compiled by Authors, 2017

But now mentality of the conservative society is also changing dilatory. Surprisingly, in the study area, the distribution of population depicts that it is dominated by female population. The male members of the family in the mountainous villages usually out migrate to various towns to earn a living for their families (Bora, 1996).

Objectives

- To analyse the Socio-Economic Status and Health Status in Lachigad Watershed.
- To highlight the Pre-Natal health status, issues and Problems in Lachigad Watershed.

Research Methodology

An extensive literature survey has been done covering a large spectrum of health issues of women in the mountain areas. The present study is based on qualitative data. Observation Method is used such as field notes, audio recording and personal observation. For the research, a sample of 125 female respondents has been taken into consideration from three villages namely Sheela Malla village, Bhainsora village and Mangaro Village of the Lachigad Watershed in the Uttarakhand state. Sampling technique has been used for the selection of the respondents. Primary data has been collected through personal interviews and from in-field observation. A semi-structured questionnaire has been developed to collect data regarding characteristics of respondents and her socio-economic condition, availability of health facilities, availability of doctors/ assistant nurses (*Dais)* at the time of delivery etc.

Data regarding availability and access to infra facilities such as roads, transportation etc., government policies, and government introduce awareness programs has been also collected during the primary survey. Population related data has been collected from Census of India. GIS techniques are used for preparation of study area maps along with demarcation of villages and health centres available in the region. Tabulation has been done to squeeze a large set of data for the comparative and comprehensive study and presented in the form of tables, charts and graphs.

Results and Discussions

Socio-Economic Accountability on Health Situation in Lachigad Watershed

The entire study area is a rugged mountainous terrain and is rural. Most of the residing households depend on subsistence farming for their livelihood which is definitely not enough to survive therefore, many men in

the study area have moved to cities in search of employment. So, most of the women are engaged in farming. They have usually small size of land for cultivation which produces limited production. During survey, it has been identified that about sixty per cent households are engaged in agricultural activities which are subsistence in nature. However, other than farming, many members of households go to work in government initiative infrastructural development activities such as road construction, dam construction etc. (Awasthi, 2012). Some of them work as seasonal agricultural labour because they are landless. Most families reported during the survey, that at least one family member had to move for employment (Srivastava, 2011). Most of the households have poor lifestyle and they are not able to make their life easy.

Services of social well-being like health-related services throw light on socio-economic status of any community. People of the study area are compelled to live with poor health conditions because of physiographic features of the region and poor economic conditions. Inhabitants of the village are suffering from various health issues such as hypertension, heart disease, respiratory disease, skin diseases anaemia, low blood pressure, lack of vitamins related diseases and many other deficiency related health issues along with all types of seasonal health problems and in the name of medical facilities there is only one Ayurvedic Health Centre at Jogimarhi in Lachigad watershed. Most of the women stated that availability of medical facilities are lacking in the villages and nearby area. The scarcity of trained manpower for the health care is a major problem and obstacle of health service to rural and remote areas. The locals are suffering from this issue since a long time. Although Accredited Social Health Activists (*ASHA)* centre is supported by trained workers to support women health but to reach them is a huge problem as rugged topography and lack of roads prevent them. Even the travel expenses are too high amounting to Rs 500-700 per visit which is being charged by private taxi drivers as no state run bus service is available in the village to the nearest health centre**.** To reach the nearest health care centre or hospital for treatment they need to go Baijro which is fourteen kilometres away from their villages or Birokhal (22 kilometres away) or as suggested by doctors in the study area (Figure 3). Medical related facilities such as availability of dispensary, medicines and doctors are not readily available due to rigid terrain and inaccessibility. A Buffer map is prepared to develop relationship between existing location of health centres and access to it for gainful and optimum utilization of available medical facilities (Figure 3). Locals reported that the health centre was in working situation 4 -5 year back, but currently the medical facility is not accessible.

About thirty two percent of the respondents said to have availed of the present medical facility while sixty eight percent of the respondents said that it is not regularly available.

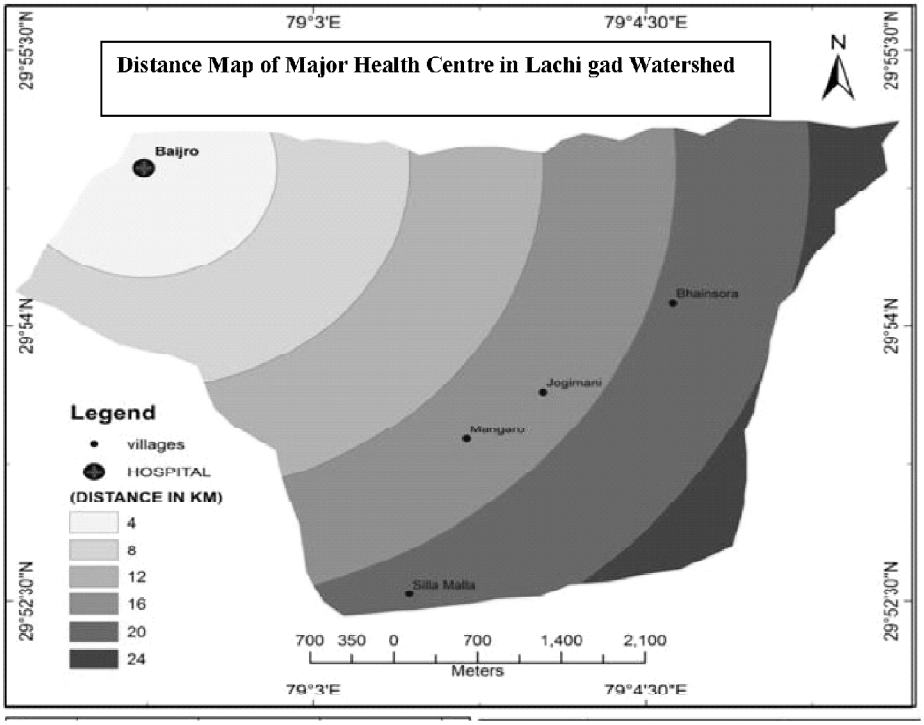


Figure 3: Distance Map of Major Health Centre in Lachigad Watershed Area of Uttarakhand

Compiled by Authors, 2016

Work Participation and Women Health in Lachigad Watershed

Uttarakhand state is facing huge problem of youth out-migration (ICIMOD, 2010 and Jayraj, 2013). The women of this mountainous region are shouldering dual responsibility of managing home and working in the fields as the men folk migrate to cities for livelihood. Generally, women, children and the aged people are left behind in the villages. Thus, the entire burden of household work and family responsibilities lies on the shoulders of the female member of the house. Majority of the work including household chores are carried out by women in Pasolgad watershed area (Table 2). The consequences of ever increasing workload on women can be directly observed on their health status. Every female is involved in productive work for an average of ten to sixteen hours daily in various activities, such as farming, fodder collection for cattle, fuel collection, animal husbandry, marketing, fetching water and cleaning apart from cooking and caring of their children along with physically depended old people of family (Figure 4).

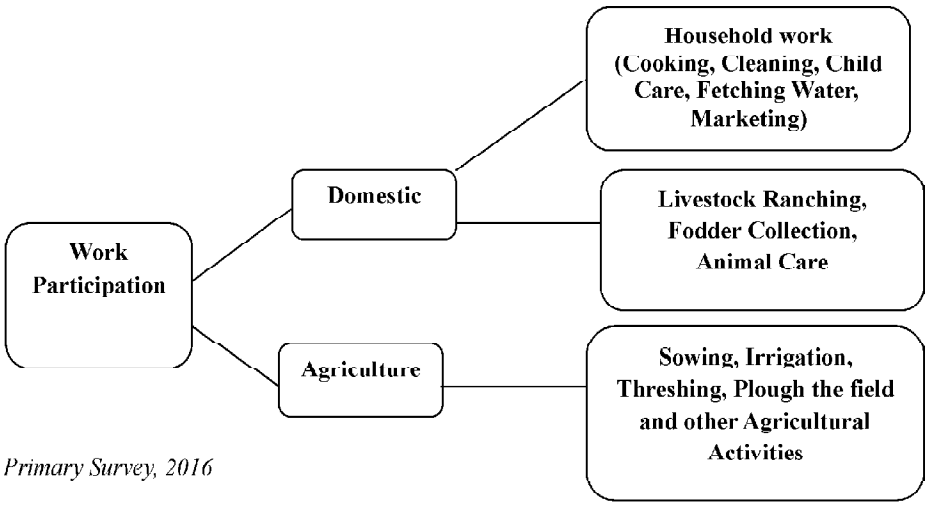


Figure 4: Work Participation of women is categorized as

Primary survey, 2016

Due to this tiresome workload, females are suffering from various physical and psychological diseases and their life span has declined to an average of 50-60 years. So, women need better health treatment in all aspects but sometimes and in many medical cases; they avoid to use available medical facilities because of their conservative culture. Mountain culture is conservative on some points therefore they prefer a lady attendant, nurse or doctor to provide medical treatment to them (Pandey, 2015).

Women involvement in decision making about their own health care, financial matters like employment and control over their own earnings, family planning measures etc. is increasing. During the survey, it has been found that 60 per cent of women were involved in decision making in various social and economic related domains.

Pre-Natal care and livelihood activities in Lachigad Watershed

Illiterate and poorly educated women as well as educated women are likely to work in house and outside (Plate 1a and 1b). It has been observed that majority of women have been working an average of around ten to thirteen hours daily during pregnancy. Around nineteen per cent of women respondents reported that they spent about three to four hours daily to collect fodder and fuel materials and they spend another three to five hours daily in farming and its related works like limbering, making soil for seeding, planting, spreading fertilizers, grazing animals, harvesting etc.

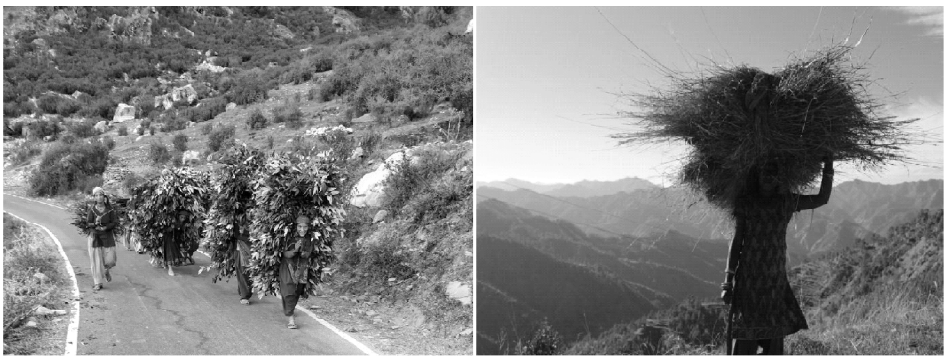
Plate 1a and 1b: Women engaged in household work and wood collection

Primary survey, 2016

Grazing animals is a hectic process and it requires more energy than any work as one has to keep an eye on animals and travel long distances with them. Apart from these regular livelihood work, women have to involved cooking and cleaning home and utensils which take their another three to four hours per day. These household works occupy thirty-five present of their daily work load. This is again a never-ending process which depends on the size of family.

A good and proper nutritions meal is necessary for pregnant women but in the study area, it has been found that pregnant women fail to realize their basic requirement to take proper meal (nutrient rich food) for proper and healthy growth of their unborn baby. Due to carrying heavy loads of fodder and water, they have an adverse effect on their health as majority is suffer from pain in their back, wrist, legs and shoulders (Plate 2a and 2 b). There are jobs that require physical strength such as cooking, climbing slopes, carrying water and fodder, which might cause danger to unborn baby and mother. It may lead to high blood pressure, abortion, premature birth and yet women are aware of these consequences, they still engage in high risk activities, as they do not have any other alternative. Collected data shows that thirty-two per cent respondents travelled daily by foot in sloppy hilly areas in pregnancy period which is the minimum distance covered by pregnant women while eight per cent of the respondents reported that they travel about eleven to thirteen kilometres distance on soot.

The rest of the respondents said they have travelled about five to ten kilometres per day for their daily work during pregnancy (Figure 5). Average distance covered by them varied according to the work they were engaged in. In rural areas with mountain terrain, there is a lack of road connectivity and houses are connected via *patties* to main roads which are made by locals.



2a *2b*

Plate 2a and 2b: Women climbing slopes and carrying heavy loads during work

Primary Survey, 2016

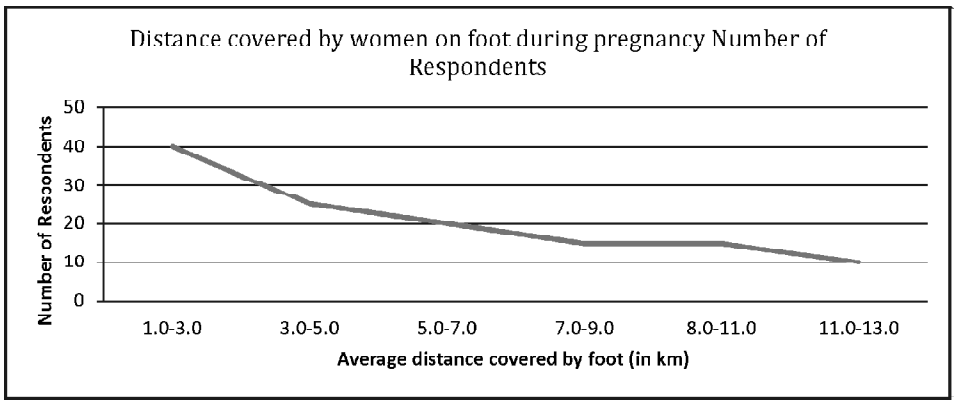


Figure 5: Average distance covered by women during pregnancy

Source: Primary Survey, 2016

To reach the nearest market place, PDS shop, bank, school or to the only Ayurvedic health centre they had to cover at least two kilometres distance on slope, while for grazing animals, fodder collection or collection of fuel wood a distance of five to ten kilometres is averagely covered by them.

Medical Facilities and Pre-Natal Care in Lachigad Watershed

At present the studied villages have a building in the form of Ayurvedic health centre with absence of doctors, attendant, nurse or any other staff member to attend patients and it is devoid of modern health care services and medical equipment such as: X-Ray machine, ultra-sound or any other tests/ pathological facilities. In case of any complication during pregnancy there is no medical facility.

Women at the reproductive age are a valuable human asset for the society because they keep humankind intact on the earth. So maternal health should be a matter of great concern for our society and it is. It is suggested by doctors to have regular medical check-ups and consultancy during pregnancy. Pre-Natal Care (PNC) is the care given to the pregnant women to have safe pregnancy and healthy motherhood, which is the responsibility of our society. Majority of women in the villages lack access to modern health care, due to lack of transportation connectivity. The State Bus Service does not go to the villages and the cost of private taxi service is very high for the villagers to afford it. The nearest major health centre with all medical facility is available in Baijro which is fourteen kilometres away from Lachigad Watershed villages and the route is very bumpy and mountainous steepy. This has caused morbidity and mortality among villagers. As a result, five miscarriage cases have been recorded during survey in the Bhaisoda, Seela Malla and Mangaro villages. Emergency Ambulance services, 108, Launched in 2008, recently initiated by Uttarakhand Government, has linked many private hospital and private agencies across the state. But this area is not yet taking full advantage of the facility. *Janani Suraksha Yojana* (JSY), one of the important programmes under the umbrella of NRHM, is running in this mountainous region. A system of coordinated care by field level health workers namely ASHA/AWW and ANM has been established and respondents are familiar with this programme.

If procreation is handled by untrained and unskilled persons, it increases the health risk. Although maternal care has been a priority with the State health department, and for this the three-tier health care delivery system has been set by government to reach out to remote areas to provide primary care at a village level secondary care at a sub-district and district level, and tertiary care at a regional level. Funds are also being provided by State government for operation of safe medical services at health centres including procurement of equipment and drugs for medical facilities. But during the survey, it has been found that there are no good medical and transportation facilities in the villages. About eighty-four per cent women out of total surveyed respondents consulted medical treatment and sixteen per cent did not, due to dissimilar economic and social condition in each house. It has been found that, people living near Jogimarhi Market area were able to take medical facility easily as it was near the house. But those whose residence were in the slope or down the valley had to climb about two – three kilometres distance to reach nearest Ayurvedic health centre.

Home Remedies and Pre-Natal Health in Lachigad Watershed

The use of traditional knowledge of herbal home remedies (herbs useful for curing diseases) and the role of traditional healers as health care providers are an affordable means of healthcare to the poor and marginalized people

where there is lack of modern medical facilities. About sixty per cent females in the village are not willing to consult with a modern doctor during pregnancy but they prefer to take natural and homemade medicinal remedies to cope with health related issues during pregnancy. About seventy-six per cent women laid emphasis on remedies prepared at home by their elders. Remedies such as drinking cold milk to fight acidity, mixture of carom seeds (*Ajzwain)* and salt in equal proportions is prepared to get relief from stomach ache, a paste of basil leaves and honey for cough and cold and many more. They rely on natural source of nutrition intake to increase energy and stamina. Around twenty four percent took medicines recommended by doctors such as folic acid, iron tablets etc.

Accouchement and medical services in Lachigad Watershed

Delivery in a health facility centre has increased due to access to required equipment and supplies. However, it remains essential to ensure that the childbirth is carried out by skilled personnel, capable of anticipating or detecting signs and symptoms of complications so that women receive quality care and treatment. One critical strategy for reducing maternal morbidity and mortality is to ensure that every baby is delivered with the assistance of a skilled birth attendant which generally includes a medical doctor, nurse or midwife. Accessibility to health services in rural mountain areas is very low therefore mountain society and cultural believes has made delivery at home a common perspective. During the survey it has been observed that about seventy-four per cent of the surveyed women delivered their child at home rather than in any medical centre. About twenty per cent women gave birth in a nearby hospital because they live in Dehradun and Ranikhet during pregnancy. Only five per cent delivered her child in city hospital due to some complication during her delivery, which she got to, know during Post-Delivery visit (Table 3). According to respondent the main reason for delivery at home was due to inaccessibility to medical centre at the time required. There is negligible awareness about family planning, as well as availability and acceptance of the methods for family planning. Home birth is most common among the villagers; even the wealthiest households of the surveyed women give birth at home.

There are several reasons that could be possible being as high cost involved. Having a baby is the costliest health event families are likely to encounter during childbearing period. Hospitals where facilities are provided have an average fee of 20,000-30,000 Rs. But almost who has their babies/ baby in villages said high cost is not the factor. Even reasons; such as felt not necessary by husband or in-laws, non-customary the belief that most of the families in rural areas prefer to have delivery at home. Majority of females stated during survey that there was lack of transportation facility available during delivery. Due to lack of roads which connect each house and mountain

terrain the females were enforced to have delivery at home by mid-wives, not even *ASHA* member (health professional) was evolved during the process.

In the study area it has been found that majority of deliveries takes place at home only either by *mid-wives* of the elderly female member. The percentage of birth attended by unskilled or untrained person *(dais)* out of 125 respondents is seventy four percent in villages (Table 4). Percentage of live birth attended by unskilled/untrained health personnel is coincidently ninety eight percent as two per cent infant mortality has been recorded during survey. When asked to the respondent whether the untrained dais is reliable, they said they have sufficient experience to attend delivery cases.

Common complications during delivery include 'premature labour', 'excessive bleeding', 'prolonged labour', and 'obstructed labour ', 'breech presentation and convulsion/high blood pressure rural women faced slightly higher percentage of delivery complications than urban women. But experienced *midwife* keeps cleanliness awareness during the accouchement as washing hands with disinfectant or soap prior to delivery, conducting examination during labour, changing the position of the baby in-uterus, boiled water used to sterilize scissors. Lack of availability of the medical facility is one of the major reasons behind delivered their infant at home. But they were willing to give birth in near future in any medical health centre.

Conclusion

The situation of the women in the mountains of the study area is quite different from the plain area. The women are back bone of the mountain rural economy as majority of males migrate in search of employment and the household work pressure is being handled by women itself. The status of women in mountains still lacks when availability of health/ medical facilities is concerned. Women in the area lack in access to relevant information, trained providers and supplies, emergency transport, and other essential services. Social and cultural attitudes and practices are detrimental for this situation. Majority of surveyed women consulted doctor in some other villages where medical facility has available. Rest relied on home remedies for healthy living. Lack of infrastructure and connectivity are the major factor for non-availability of medical facility. It has also been found that economically well off or even poor women in the surveyed villages prefer to giving birth to infants at home, even though the government facilities are available. Home birth was either unattended or attended by unskilled persons. A different challenge for improving delivery outcome was due to lack of transportation connectivity i.e. the facility was too far away at Baijro and Birokhal which is 16-22 kilometre away from the villages. The nearest medical facility is very poor condition which is Ayurvedic Health Centre at Jogimarhi. The motivation for delivery at home is likely to be influenced by local and economic factors.

Table 1
Population of villages

Name of the Villages	Total Geographical Area (Hectares)	Total Population	Male	Female
Bhainsora	84.92	354	162	192
Seela Malla	123.06	96	36	60
Mangaro	51.62	77	35	42

Source: Census of India, 2011

Table 2
Work Force Participation according to respondent's perception (in per cent)

Workers Type	Female Participation (in percentage)	Male Participation (in percentage)
Fodder Collection	70	30
Agricultural Workers	60	40
Water Collection	90	10
Grazing of Animals	77	33
Livestock collection	60	40
Household Workers	90	10

Source: Primary Survey, 2016

Table 3
Public Perception about Place where delivery taken place

Place of delivery	Number of Women	Percentage (%)
Home	92	74
Health care center (in village)	03	02
Hospital nearby (any other village)	25	20
City hospital	05	04
Total	125	100

Source: Primary Survey, 2016

Table 4
Public Perceptions about Unskilled/Untrained Health Personnel Attendant during Child Birth

Delivery performed by	*No. of Respondents*	*Percentage (%)*
Untrained Dais (Midwives)	92	73.5
Trained Nurse/Attendant	13	10
Self	02	1.5
Family Member	20	16
Total	125	100

Source: Primary Survey, 2016

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