



INTERNET
SCIENTIFIC
PUBLICATIONS

The Internet Journal of Biological Anthropology 2009 : Volume 3 Number 2

Assessment and Administration of Health in a Tribal Community of India

Sudipta Ghosh

Lecturer (Ad Hoc), Department of Anthropology, University of Delhi, Delhi 110007, India

SL Malik

Professor, Department of Anthropology, University of Delhi, Delhi 110007, India

Citation: S. Ghosh & S. Malik : Assessment and Administration of Health in a Tribal Community of India. *The Internet Journal of Biological Anthropology*. 2009 Volume 3 Number 2

Keywords: Health | Nutrition | Santhals | Health care services | Reproductive health fitness | Primary health centers | West Bengal | India

Abstract

Tribal development is a vast and complex issue, which is multidimensional. Some of the important aspects of tribal development are health, education and economic development. There cannot be a singular policy for such diversified Indian tribes having specific and distinct needs. Thus, it is necessary to understand their needs, conditions, cultural norms, traditions and socio-economic life.

The present paper focuses on status of health and availability of treatment and aides among Santhals, a tribal community from Ranibandh block of West Bengal, India. Through the health centers, which conduct grass root level survey in the villages almost every month, Santhals of the region have gained awareness over time about their health and nutritional status.

Introduction

Health and nutrition are important elements in the development process. Adequate nutrition enhances physical health, thereby improves immune systems and reproductive health fitness. Both nutrition and health increases life expectancy, which is known to be important for development ¹ . Although primarily health is a function of nutritional status, other factors like availability, quality and cost of health care services, living standards, sanitary conditions, quality of drinking water and economic condition are also important ² . With the significant development in treatments and medical services, people have become highly aware and cautious about their health and fitness.

In tribal societies the concept of health, fitness and diseases varies between different tribal groups. In a tribal habitat, a person is usually considered to be afflicted with some diseases if he/she is incapable of doing the routine work, i.e., incapacitation from work is the universal index of poor health. Thus the concept of ill health becomes a functional one and not clinical ³ . Reproductive health is also very poor among most of the tribal communities. Among Pahira tribal population of India, for instance, pre-reproductive mortality is significantly high. The mothers are used to frequent child bearing with the aim of making up the loss, despite the consequent risk to their own survival and physical fitness ⁴ . Unfortunately, this is the case in many tribal societies of India.

In India, the general health status of the tribal populations is known to be poor. The widespread poverty, illiteracy, malnutrition, absence of safe drinking water and sanitary and living condition, poor maternal and child health services have been traced out in several studies as possible

contributing factors for miserable health conditions prevailing among tribal populations ^{3, 5, 6} . Information regarding the health status of tribal societies, especially among tribal women from West Bengal state of India is scarce. The ailments among tribals are often region-specific. For example, in the arid climate of Purulia, Leprosy is a predominant disease, while in Bankura it is Malaria and in Medinipur Tuberculosis is prevalent ⁷ . Further, the above study suggests that although majority of the tribal women took doctor's advice during pregnancy, negligence and ill behavior of the staff of government hospitals are important causes deterring these women from availing pre-natal and post-natal facilities. Tribal mothers are generally aware of the immunization programme for children administered by rural sub-centers or primary health centers.

Keeping these objectives in mind, the present study has been conducted on Santhal tribes of Bankura district of West Bengal, India, to examine socio-economic profile, health and nutritional status of Santhals, focusing on reproductive health fitness of Santhal women and availability and quality of different health care services accessible to them.

Materials and Methods

A survey of 400 households was conducted on Santhals of Ranibandh block of Bankura district of West Bengal, India ⁸ . In order to gather information on the socio-economic aspects, all the members of each household were interviewed. In addition, 400 randomly selected ever-married women were interviewed to collect information on their reproductive profile. Data were collected from 18 villages of Ranibandh block of Bankura district, West Bengal, using multistage random cluster sampling method.

Household survey consist information about Primary occupation, Pattern of house, position of kitchen and sources of fuel. Subjects were interviewed to obtain information regarding their Dietary intake, Smoking and Drinking habits and Morbidity pattern. Interview technique was used to gather information from selected ever-married women concerning their reproductive profile, consisting Age

at menarche, Age at menopause (where applicable), Age at first child, Age at marriage, Status of their children and Number of total children. In statistical analysis, Mean and Standard deviation were estimated for Age at menarche, Age at menopause, Age at first child and Age at marriage using computerized statistical software, SPSS and MS Excel. Additionally, frequency distribution of Primary occupation, various housing characteristics, dietary habits, Smoking and Drinking habits, Morbidity pattern, Age at first child, Status of children and Number of total children were calculated ⁹ .

Ranibandh block is one of the 22 Community Development Blocks of the district Bankura. The total land area of the block is 428 km ² with a population density (244 per km ²), the lowest as compared to the other blocks of this district. The total population of the block is 1, 08,591 ¹⁰ . The sex ratio of Ranibandh at 964 is the highest as compared to the other blocks and is also higher than that of the district, as well as the state average. The total number of tribal population of this block is 49,321 out of these 24,912 are males and 24,409 are females.

Santhals of Ranibandh strictly follow the rule of tribal endogamy and clan exogamy as evident from the information gathered on marriage / mating pattern. Not even a single intra clan marriage was found in this population. Moreover, they have the preference of bringing their brides from the same village or from the neighboring villages with a marital distance not more than 15 km.

Guha ¹¹ classified Santhals as Proto-Australoid, which he considered to have arrived in India soon after the Negritos. They are the largest tribe to retain an aboriginal language, known as *Santali*, belonging to Austro-Asiatic, sub-family of the Austric family. This language is closely related to Mundari as well as Ho, Korku, Savara and Gadaba languages spoken by smaller tribes of India ¹² .

The Santhals have been living in southern and western part of the West Bengal for at least five hundred years. It was found that some of the Santhal villages in Bankura district are over three hundred years old. They live in tropical environment, which is humid and hot. Their habitational places are generally covered with forest and hills that are intercepted by streams and springs. In some parts, there are ranges of low hills, while in others, the conical shaped hills rise abruptly from the

undulating plains. Most part of the countryside is covered with the *Sal* (a variety of tropical tree) forest that contributes to the well being of the dwellers (tribal belief). The area in the plain is characterized with the lateritic reddish soil having scanty water supply.

Santhals practice settled agriculture, though food gathering and hunting are their important subsidiary occupations. Familiarity with animal husbandry contributes marginally to their livelihood. Santhals are expert hunters who hunt a variety of games that are available in the surrounding forests. They fish in river, ponds and other water-logged areas with the help of nets, traps, bow and arrows. They also do fishing with the help of poisonous plants.

Monogamous marriage system is the most prevalent one among Santhals, though polygynous marriage system is also found in some cases. There are seven accepted forms of marriages or *Bapla* namely, *Kring Bahu Bapla*, *Ghardi Jawaee Bapla*, *Itut Bapla*, *Sanga Bapla*, *Kiring Jawaee Bapla*, *Tunki Dipil Bapla* and *Nirbolok Bapla*. The Santhals are divided into 12 exogamous totemic clans, locally known as *Paris*. These are: 1) *Hansda*, 2) *Marndi*, 3) *Soren*, 4) *Hembrom*, 5) *Tudu*, 6) *Kisku*, 7) *Murmu*, 8) *Baske*, 9) *Besra*, 10) *Pauria*, 11) *Chore* and 12) *Bedea*. *Pauria*, *Chore* and *Bedea* clans are on the verge of extinction and not even a single member of these three clans was found during the present study.

Results and Discussion

Availability of health care services and health treatments among Santhals of Ranibandh are depicted in this section. Ranibandh block has one Block Primary Health Center (BPHC) and four Primary Health Centers (PHC) (Figure 1).

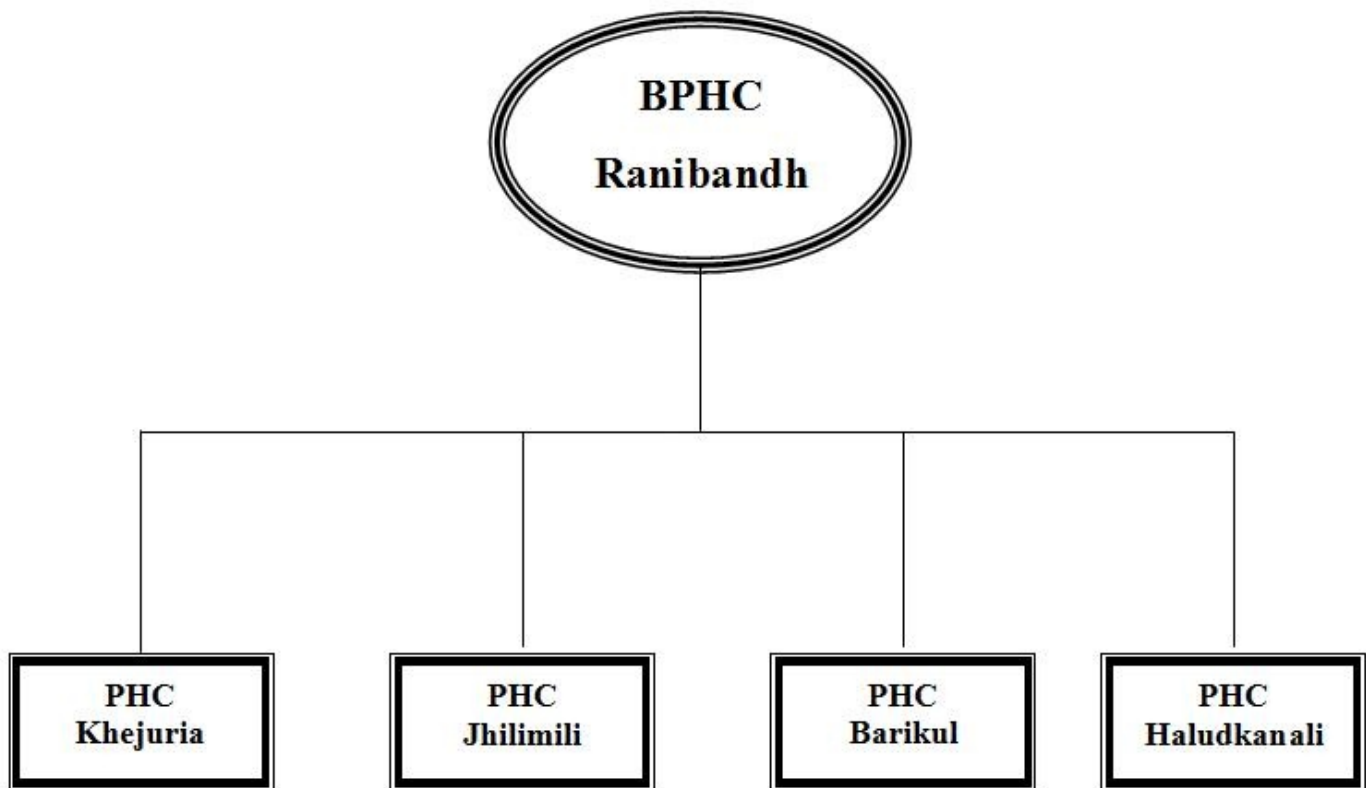


Figure 1: Primary health centers of Ranibandh block

Three PHC that are governed by the state are Jhilimili, Barikul and Haludkanali. Khejuria, the fourth PHC, is governed by the Gram Panchayat. The block has four sectors, viz. Ranibandh, Jhilimili, Barikul and Haludkanali, which are further, divided into a number of sub health centers (Figure 2). 24 sub health centers are distributed all over the block, thus covering almost all the villages of this block.



Figure 2: Distribution of Sub- health centers of Ranibandh block

The block primary health center is situated at Ranibandh village. This center consists of four doctors, eight nurses, one Block Medical Officer of Health (BMOH), one Block Primary Head Nurse (BPHN) and one Block Sanitary Inspector (BSI). It has 25 beds, 13 are for females and 12 are for males. Each primary and sub health center has one doctor, two nurses, one pharmacist and one sweeper. Health centers provide free meal and medicines to all in-house patients. Patients that fall Below Poverty Line (BPL) are paid two hundred rupees for transport in antenatal cases and five hundred rupees for treatment in other cases, as most of the Santhals fall into this category they get the charges. The administrators of block primary health center conduct meetings every Saturday to discuss progress in developmental programmes on health and problems faced by these health centers during this process. Doctors, nurses and other staffs of primary and sub health centers attend meetings, which are headed by the Medical Officer. These health programme meetings are held either in block primary health center or other primary health centers. Health centers also carry out Direct Observation Treatment

(DOT) Programme at the grass root level, thrice a week, where a doctor and a nurse go from door to door in all the villages that fall under that primary health center to investigate about the health and diseases of these people. Health awareness camps are held every third month, with the help of Anganwari centers (It is a Non Government Organization to conduct developmental programmes at grass root level in rural areas) to spread knowledge about proper nutrition and good health. For those remote Santhal villages that do not have any nearby health center, 'Medical Camps for Outreach Villages' are held every fourth or fifth months. In the camp, two-three doctors, three nurses and technicians visit remote villages with the help of local police. The doctors check the local people's health, do the require treatments and give medicines free of cost. Even during immunization or vaccination programme, block primary health center sets special immunization camp for these 'outreach' and remote villages.

Socio-economic, nutritional and health status of Santhals could reflect how far the health programmes, carried on in this region, are helping or influencing the Santhals of this block. The distribution of Santhals according to their primary occupations suggests that majority (72.5%) of the Santhals are self-cultivator cum daily laborer (Figure 3). Santhals falling under this category own only a small piece of cultivable land, which is not sufficient to sustain livelihood. Therefore, to substantiate, they work as daily laborer in the construction sectors or in the land of affluent people. A sizable number (18.7%) of them are self-cultivators, who have cultivable land to maintain their subsistence pattern. Some of them (6.8%) serve the government, whereas for a small percentage (1.5%) of Santhals daily wage is the only source of income, as they do not own any land. A negligible percentage (0.5%) of this population is in business.

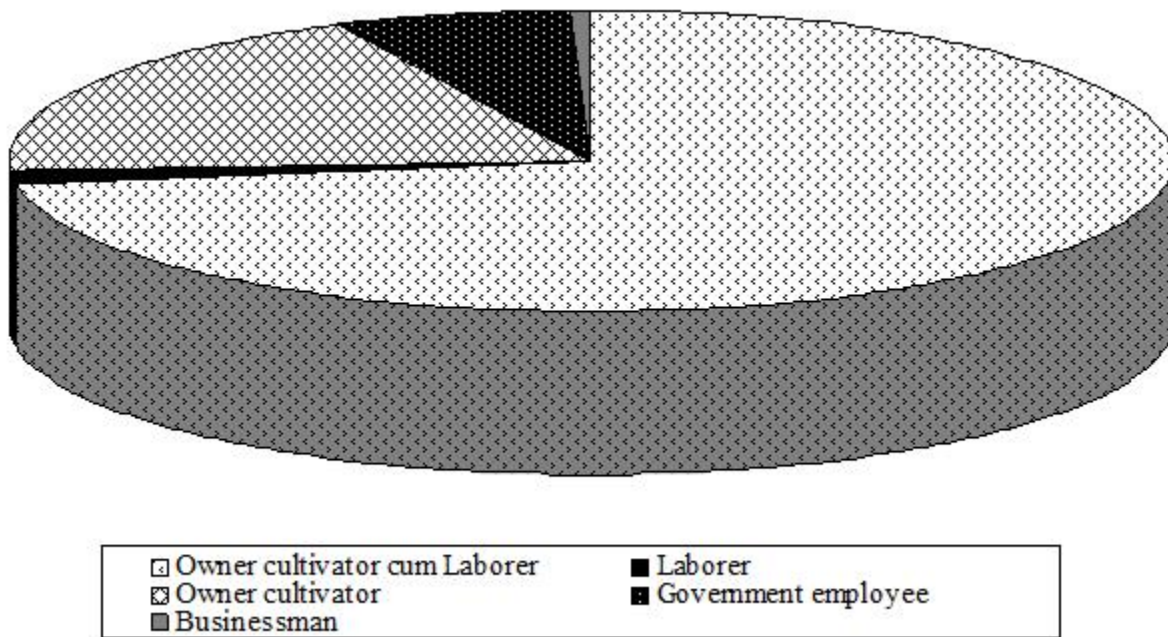


Figure 3: Distribution of Santhals, by Primary occupation

Investigation of various housing characteristics of Santhals suggests that majority of them (97.0%) own single storied kaccha (House build up of straw and mud, instead of cement and brick) houses (Table 1). Only few can afford to have pucca (when house is built up of cement and brick) -single storied (2.2%) or pucca-double storied houses (0.8%). Most of the houses have a room and a kitchen (79.0%). Sometimes, when they don't have a separate kitchen, they use the space outside their living room (14.7%) or a corner inside their living room (6.3%) for cooking purposes. Forest wood is the only type of fuel used by Santhals. In majority of the cases (90.3%) kerosene (a type of oil use in rural India for country made lamps, to light huts) light their houses, whereas, only few (9.7%) of them can afford to use electricity. This reflects that the benefits of modern technology like LPG, electricity, etc. have not reached the common people in this area.

Items	Categories	No.	%
Construction of house	Kaccha and single storied	388	97.0
	Pucca and single storied	9	2.2
	Pucca and double storied	3	0.8
Position of kitchen	Separate kitchen	316	79.0
	Kitchen inside the living room	25	6.3
	Kitchen outside the living room	59	14.7
Sources of light in a house	Electricity	39	9.7
	Kerosene	361	90.3

Table 1: Housing characteristics of the Santhals

The staple diet of Santhals is rice. Majority of them (80.6%) take meals thrice a day; whereas some (15.0%) take meals twice a day and a few (3.8%) can afford to have meals four times a day (Table 2). As milk is scarce, consumption of milk is almost negligible (98.5%) and only a few (1.5%) can afford to consume milk. Pulse intake is low among the Santhals and they take pulses only two (33.0%) or three (31.1%) days a week. Since they generally don't cultivate pulse, they purchase it in cash (not through barter system) from market. They take green vegetables twice (57.1%), thrice (42.1%) or once (0.8%) a day. Although all of them are non-vegetarian, consumption of fish or meat is rare. Majority of Santhals take non-vegetarian food once (70.1%) a month, while only few of them can afford to consume it thrice (4.5%) or four (3.1%) times a month. They don't purchase fruits from market but collect them from forest; therefore, the consumption of fruits depends on the season.

Dietary habits		No.	%
Meals taken per day	Once	2	0.6
	Twice	60	15.0
	Thrice	323	80.6
	Four times or more	15	3.8
Pulse taken per week	One day	94	21.5
	Two days	138	33.0
	Three days	132	31.1
	Four days	37	8.3
	Seven days	28	6.1
Green vegetable / day	Once	3	0.8
	Twice	229	57.1
	Thrice or more	168	42.1
Meat or Fish / month	Once	280	70.1
	Twice	89	22.3
	Thrice	19	4.5
	Four times or more	12	3.1
Milk taken per week	Never	394	98.5
	Once or more	6	1.5

Table 2: Dietary habits of the Santhals

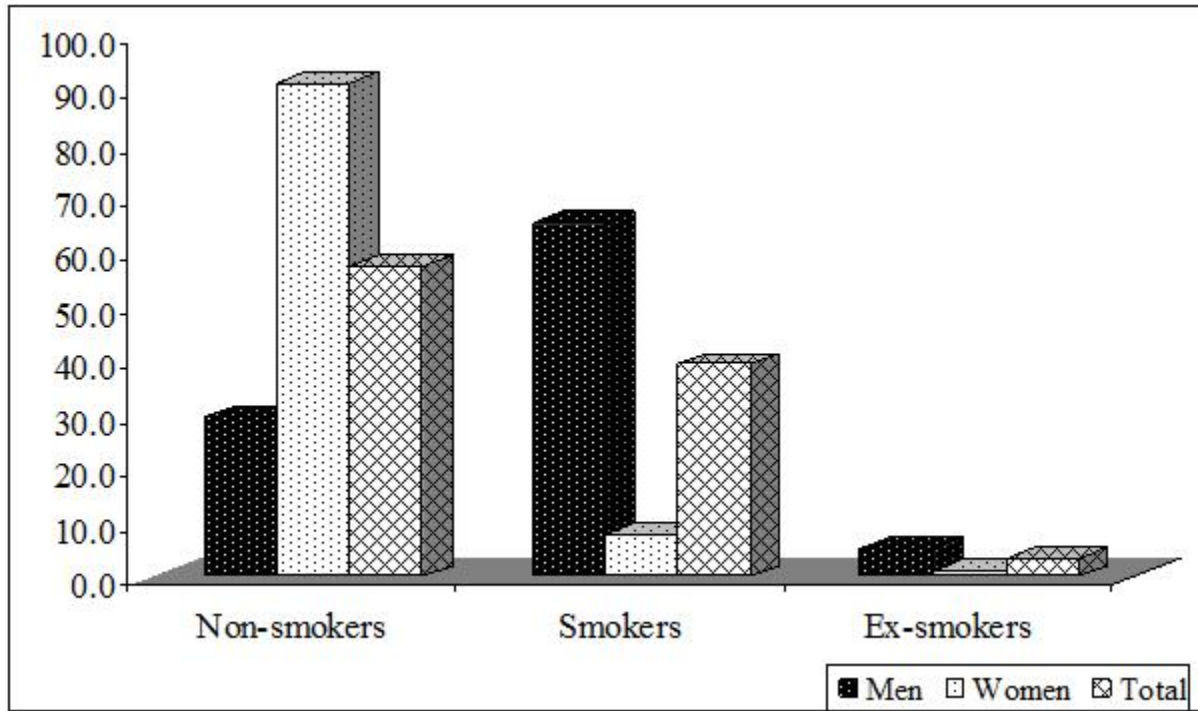


Figure 4: Smoking Habits among Santhals, by gender

Smoking habit of the Santhals suggests that majority (57.3%) of them are Non-smokers, while several of them are Smokers (39.3%) and only 3.4% of them are Ex-smokers (Figure 4). Investigating both genders separately, it is observed that women shows higher percentage of Non-smokers (91.1%) than their counterpart men (29.5%). Thus, smoking is not a common practice in this population, especially among women. On the other hand, as compared to women (7.7%), percentage of Smokers is considerably higher among men (65.3%). Statistically significant gender differences ($\chi^2 = 485.15$; $P < 0.05$) are observed in smoking habits of Santhals at 5% probability level.

Consumption of liquor is rare in this community (Figure 5), as majority (70.0%) of them do not consume it at all, more so among women (85.4%) than among men (57.4%). Statistically significant gender differences ($\chi^2 = 117.37$; $P < 0.05$) are identified in drinking habits of Santhals at 5% probability level.

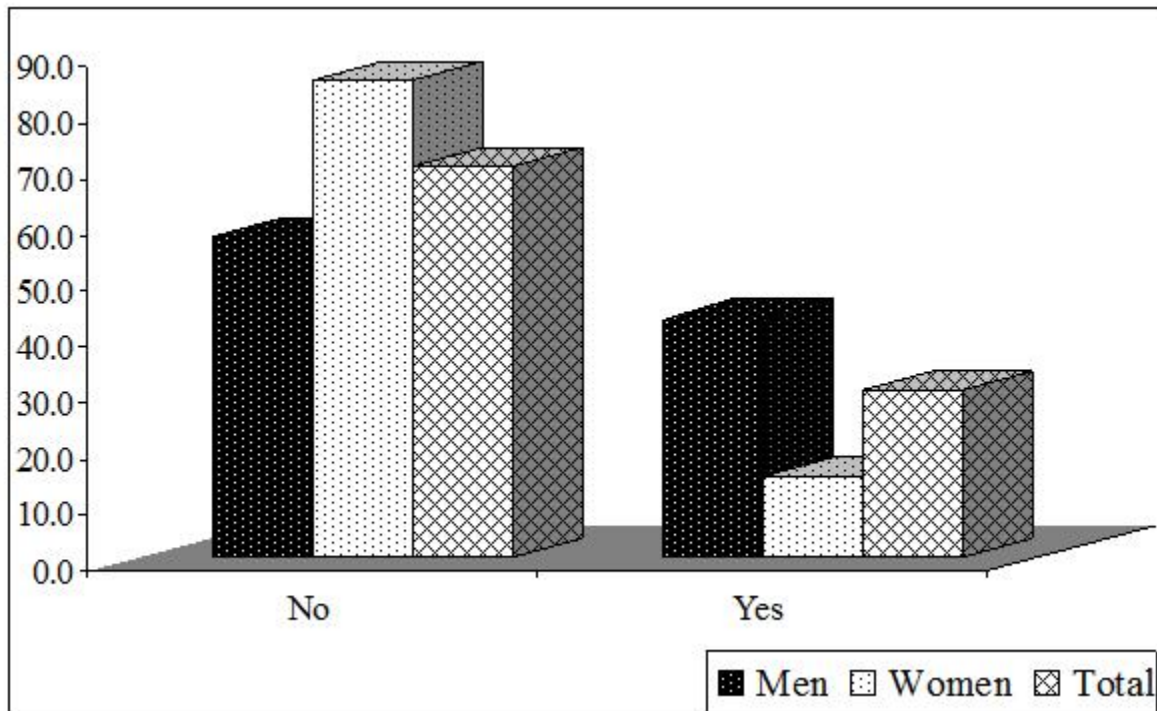


Figure 5: Drinking habits among the Santhals, by gender

Handia and *Mahua* are two popular locally prepared liquors. Even those who devour liquor, they drink it mostly on special occasions, especially during festivals. Santhals prepare *Handia* from fermented rice and *Mahua* from *Mahua*, a variety of local flowers. Generally, they don't take any other type of liquors that are available in the market due to their low economic conditions.

Morbidity record of the Santhals for last three years suggests that Malaria is the most prevalent disease in this community (Table 3). Little less than half (41.1%) of the total population have this disease. Percentage of occurrences of Malaria is higher among women (43.6%) than among men (39.7%), which could be because women are nutritionally deprived as compared to men. High prevalence of malaria in this community, as compared to other diseases, could be because of the preponderance of mosquitoes in their inhabited forest area. Evidently higher occurrence of T.B. in Santhal men (16.8%) than in women (4.0%) could be because of the fact that smoking habit is more common among men as compared to women.

Name of the ailments	Males		Females		Total	
	No.	%	No.	%	No.	%
Bronchitis	5	1.3	0	0.0	5	0.8
Asthma	11	2.8	6	2.6	17	2.8
Cold and cough	51	13.1	34	15.0	85	13.8
Typhoid	31	8.0	26	11.5	57	9.3
T.B.	65	16.8	9	4.0	74	12.0
Malaria	154	39.7	99	43.6	253	41.1
Diarrhea	16	4.1	7	3.1	23	3.7
Chicken pox	23	5.9	19	8.4	42	6.8
Phyleria	1	0.3	4	1.8	5	0.8
Arthritis	12	3.1	10	4.4	22	3.6
Leprosy	1	0.3	0	0.0	1	0.2
Jaundice	8	2.1	4	1.8	12	2.0
Epilepsy	6	1.5	8	3.5	14	2.3
Piles	2	0.5	1	0.3	3	0.5
Pneumonia	2	0.5	0	0.0	2	0.3
Total	388	100.0	227	100.0	615	100.0

Table 3: Morbidity pattern of Santhals for last three years

Higher incidence of arthritis in women (4.4%) than in men (3.1%) might be due to the difference in their work posture, resulting from the differences in their activity patterns. Certain diseases like Bronchitis, Leprosy and Pneumonia are found only in Santhal men and not in Santhal women. However, overall Santhals are not highly prone to diseases, except Malaria. For treatment, Santhals always first consult the village Shaman. He is generally an old person who treats his patient with local herbs. Santhals believe he is the most knowledgeable person of their community. If he fails, only then they consult doctors at the primary health centers, which are distributed all over the block with the main center being located at Ranibandh. However, these days Santhals of young generation visit health centers directly without consulting village Shaman.

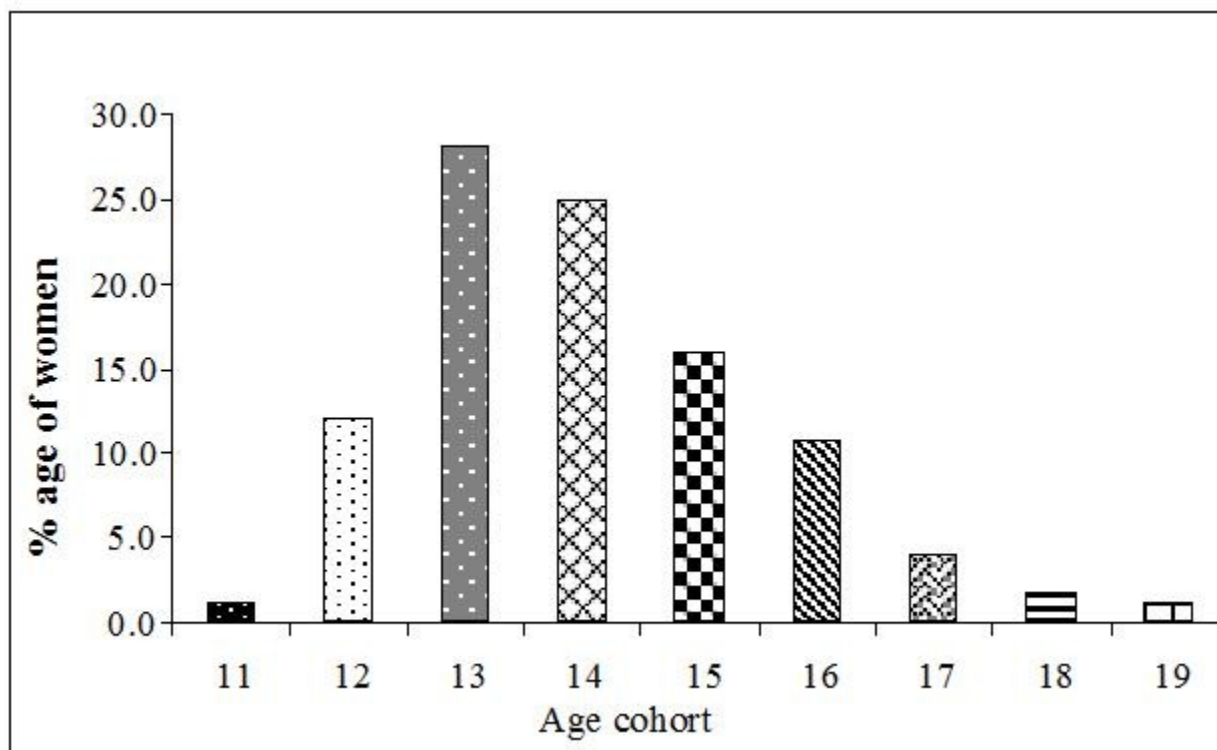


Figure 6: Age at menarche among the Santhals

Reproductive health fitness of Santhals is presented here. It is one of the ways to measure the health of a community. Majority of the Santhal girls have their age at onset of menarche at the age of 13 years (28.1%), 14 years (24.9%) or 15 years (16.0%), with a mean age at menarche as 14.1 (Figure 6).

The mean age at menopause of Santhals is 49.0 with insignificant percentage of women having menopause after 55 years and before 43 years (Figure 7). Reproductive life span of the Santhal women ranges from 25 years to 46 years, with a mean of 35.0 (S.D. = ± 3.66).

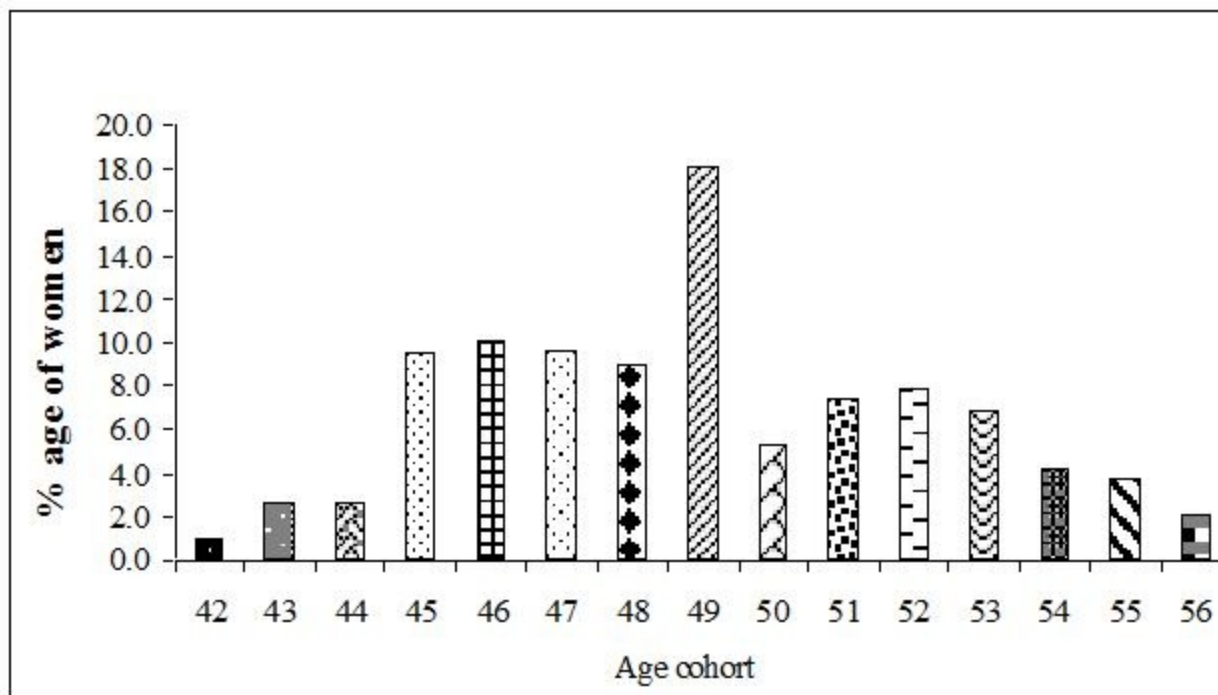


Figure 7: Age at menopause among the Santhals

Examination of reproductive profile of Santhal suggests that (Figure 8) usually Santhal women have their first child at the age of 17 years (16.3%), 18 years (13.8%), 19 years (13.8%) or 20 years (13.5%), with a mean age of having first child at 19.4 years (S.D.= ± 2.91). This is perhaps because mean age at marriage of Santhal women is 15.6 years (S.D. = ± 3.49), which is higher as compared to Thoti (12.9 years) and comparable with Jaunsari (15.7 years), other tribal communities of India ¹³ .

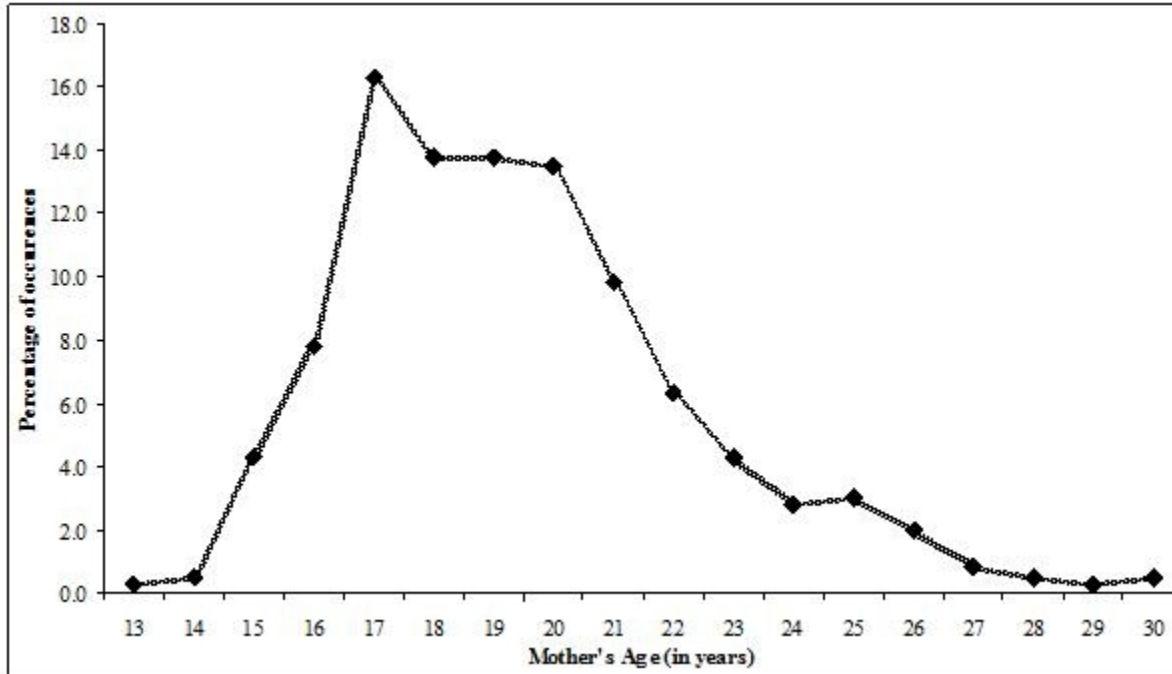


Figure 8: Age at First child among Santhal women

Santhal women generally have three (29.0%), four (21.5%) or five (17.3%) children (Figure 9). Having children more than eight is rare among Santhals and only one woman has identified with nine children during the present study. The crucial roles played by primary health centers regarding this aspect are surely acknowledgeable. During the DOT programme doctors from these centers make the local people aware of contraceptives and other birth control measures.

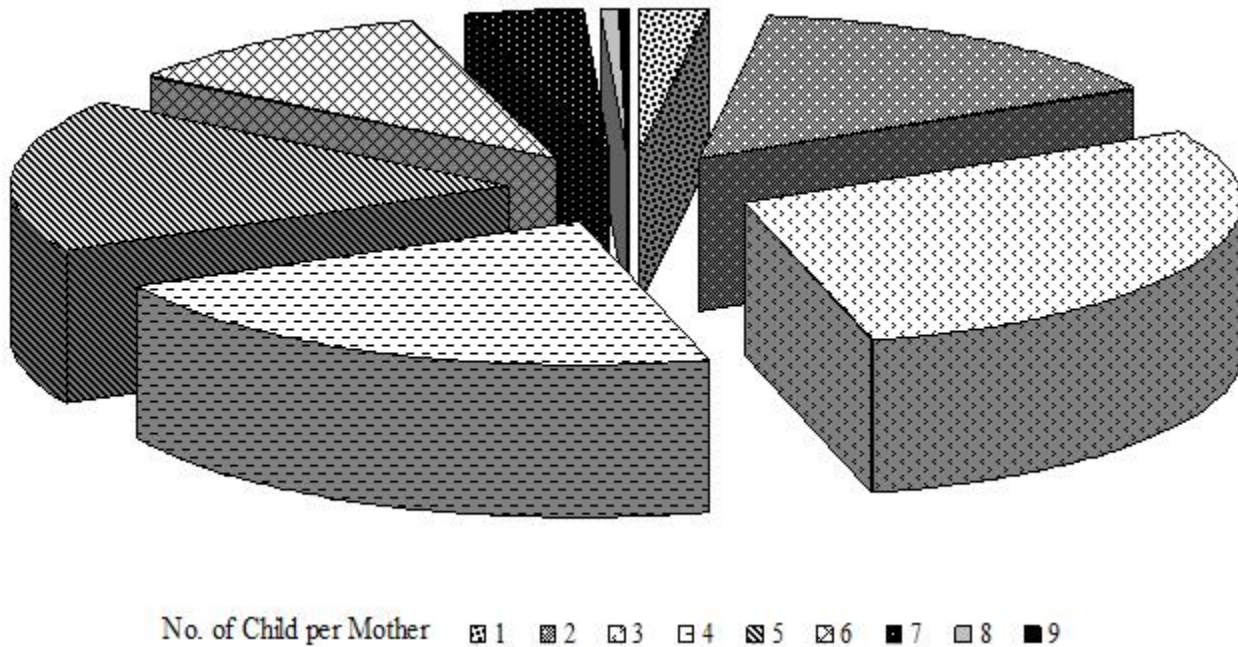


Figure 9: Number of total children among Santhal women

In this context, information gathered from the interview of the Block Medical Officer of Health (BMOH) of Ranibandh suggests that during child delivery majority (68%) of the Santhals go to the nearby Primary Health Center. Few of them (25%) seek help from Trained Birth Attendants (TBA) of respective villages, while rests (7%) of them are too poor to afford either and therefore go for normal delivery at home. These trained birth attendants were previously known as midwives, who were trained by the doctors of the health centers and were given certificates to perform such work. Hence, this is another important role, which is being played by the health centers towards fulfilling the goal of making healthy community. Premature delivery is rare among Santhals (1.6%). Cases of stillbirth (1.8%) and abortion (0.3%) are insignificant (Figure 10).

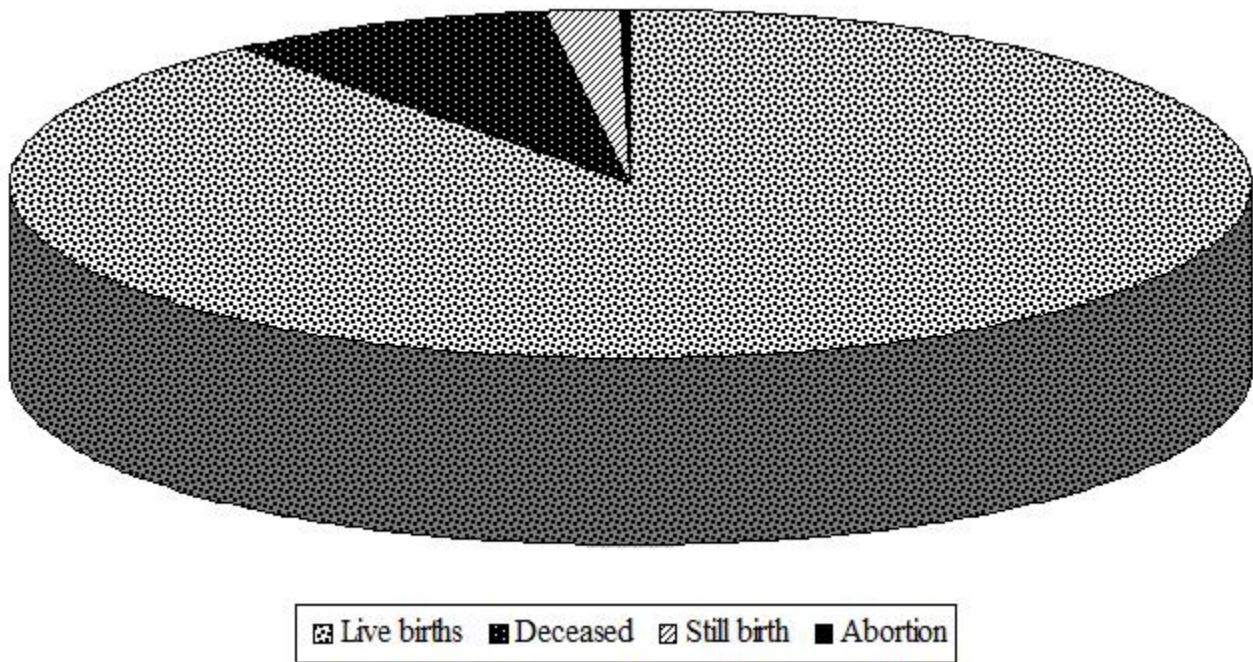


Figure 10: Occurrences of Prenatal deaths and Living children among Santhals

Further, awareness of family planning or birth control measures among Santhals is highly admirable. Majority of them (63%) have already taken birth control measure, as evident from Couple Protection Rate (CPR). Among Santhals, the most popular way of taking birth control measure is the permanent method, usually Tubectomy, as they rarely go for vasectomy operation. Generally after three or four child delivery, following the strict advice of doctors from health centers, women go for the birth control operation. However, uses of Intra Uterus Device (IUD), contraceptive pills or condoms are also not unknown to them. For past one year these pills and condoms are being displayed in health centers, so that even if they feel uncomfortable to ask for these devices they can always pick it as per requirement. These are free of cost for Santhals.

Succinctly, Santhals of Ranibandh belong to low socio-economic class. They mostly reside in kaccha and single storied houses with a room and a kitchen. They use forest wood as fuel and kerosene lamp to light their houses. Although all of them are non-vegetarians, they cannot afford it more than once a month. Since they don't cultivate pulses in their land and purchase them from market, it is difficult

for them to consume it more than twice or thrice a week. Their daily meals, therefore, consists boil rice and green vegetables. Due to scarcity of milk, they usually neither consume it nor they put it in tea and leave it for cows to feed their calves. Even for smoking they themselves prepare '*chuti*' (a raw form country made cigarette) with the help of a '*Sal*' (local tree) leave and do not buy them from market. This again reflects their low economic conditions. Liquor consumption is part of their tradition and therefore, both men and women consume homemade '*Handia*' or '*Mahua*' during festivals. In spite of low socio-economic status and poor nutrition intake, Santhals of Ranibandh are not much prone to diseases. Thus, besides Malaria, which is prevalent due to preponderance of mosquitoes in forest area, none of the other illnesses are found in high frequency in men or women. Further, reproductive health of the Santhal women is normal and healthy. Average number of children per women is not high and cases of premature delivery, stillbirth or abortion are rare in this community.

The role of primary health centers, which are scattered all over the block, is worth mentioning here. These health centers conduct grass root level survey thrice a week to spread information about the importance of proper nutrition, good health and various birth control measures, in addition to checking general health of the local people. As a consequence, Santhals have become more and more dependants on health centers and these days, even for minor illness like cold and cough, they prefer to go to health center rather than seeking help from village Shaman. Further, during child delivery, majority of Santhal women get admitted to the nearby health centers. Moreover, Santhals have become so well aware of family planning that most of the women from this community go for tubectomy operation after having three or four children. The doctors strongly recommend them for following this birth control measure to stop further pregnancy after fourth child. Hence, Santhals of Ranibandh have become much more aware of health, nutrition and family planning / birth control measure as compared to their preceding generations. The roles of health centers are worth praising and should be replicated in other tribal areas.

Acknowledgement

We gratefully acknowledge the financial assistance rendered by the Ministry of Tribal Affairs, Govt. of India, for this investigation.

Correspondence to

Dr. Sudipta Ghosh, Lecturer (Ad Hoc)
Department of Anthropology
Science Faculty, North Campus
University of Delhi, Delhi – 110007, India
E-mail: sudiptaa_77@yahoo.co.in

References

1. Cervellati Matteo, Uwe Sunde. Human Capital formation, Life expecting and the process of economic development. Iza Discussion paper No. 585. 2002. (s)
2. Case A. Health, Income and Economic Development. In: Pleskovic Boris, Stern Nicholas, editors. Annual World Bank Conference on Development Economics 2001/2002. Oxford University Press: New York; 2002. (s)
3. Kshatriya GK. Tribal health in India: Perspectives in Medical Anthropology. In Kalla AK, Joshi PC, editors. Tribal Health and Medicine. Concept publishers: Delhi; 2004. p. 17-45. (s)
4. Basu A. The Pahira: A population genetic study. Am. J. Phys. Anthropol. 1969; 31: 399-416. (s)
5. Basu SK, Jindal A, Kshatriya GK. Genetic and socio-cultural determinants of tribal health: A Primitive Kutia Knodh tribal group of Phulbani district, Orissa. ICMR Final Report, NIHFV. 1990. (s)

6. Basu S. Need for action research for health development among the tribal communities of India. *South Asian Anthropologist*. 1996; 17(2): 73-80. (s)
7. Bagchi J. The changing status of women in West Bengal 1970-2000: The challenge ahead. Subarnarekha: Calcutta; 2005. (s)
8. Weiner JS, Lourie JA. Human Biology- a guide to field methods. Blackwell Scientific Publication: Oxford; 1969. (s)
9. Nagar AL, Das RK. Basic Statistics. Oxford University Press: Oxford; 1994. (s)
10. Census of India, West Bengal. [Updated 2001]. Available from: <http://www.censusindia.com/>. (s)
11. Guha BS. Racial elements in the populations. Oxford University Press: Oxford; 1944. (s)
12. Culshaw WJ. Tribal Heritage: A study of the Santhals. Lutterworth Press: London; 1949. (s)
13. Kshatriya GK, Singh P, Basu S. Anthro-demographic features and health care practices among the Jaunsaris of Jaunsar Bawar, U.P. *J Hum Ecol*. 1997; 8:347-354. (s)

This article was last modified on Fri, 11 Dec 09 18:31:04 -0600

This page was generated on Sun, 20 Dec 09 22:00:57 -0600, and may be cached.