

CHAPTER 3

SOCIAL ENVIRONMENT AND HEALTH BEHAVIOUR AMONG THE TRIBES

Insanitary condition, ignorance, inaccessibility to the modern health facilities and lack of health education are some of the important contributing factors of the tribal health behaviour in the modern world. The concept and belief regarding illness, housing, environmental sanitation, personal hygiene, nutritional status and intoxication form integral parts of health behaviour and cultural dimensions of the tribal community. It has a strong bearing on the general health of the community. These aspects of health culture shall be discussed in details from a comparative perspective. Such comparison will be made between the Santal and the Oraon and between the tribal people of target and non-target villages. The concept of health, disease, and treatment among literate and illiterate tribal people will also be documented to analyse the impact of education, being a very important social factor how far it influences the health care practices of the individual. A formal education proves to be helpful to any community and has a strong bearing on medical behaviour and health culture. The literacy rate among the tribals of the study area is very low. Most of the literate tribals of both the target and non-target villages are having primary education only.

TRIBAL HEALTH BEHAVIOUR

The tribals do not know much about modern health and hygiene. Most of the tribal communities are not exposed to modern medicine and they still believe in their traditional system of medicine. Traditional medicine and their belief in wrath of gods, evil spirits, and magic just fit in with their culture and way of thinking. If they believe in wrath of gods, evil spirits and magic, it must be remembered that it pervades their whole life and does not apply to their view of medicine only (Singh 1996,p.208). The social position of the tribals is low, though the tribals have absorbed some of the Hindu mode of life. The traditional village council is on the wane. Many of the traditional beliefs and customs of the tribals have been modified. The dress pattern of the tribals could not be regarded as a part of the *adibasi* culture. It is seen that the interpersonal relations are less intimate and

personal. The individual have a social and economic tie with one another mainly on common interest by contract and by more abstract symbols. Community support for economic activity is less. The family members are not strictly occupied with clear-cut roles to play.

Most of the tribals of the target villages are the members of the self-help group run by the Tagore Society for Rural Development. We find changes in the concept and treatment of disease of the tribals. The tribals have started adopting modern health care facilities recently. In the study area, the government health centres situated at Balapur and Tapan are highly under-utilised. These two Primary Health Centres are not easily accessible to the majority of the tribals. Quality of the services available in these health centres is also not satisfactory. These health centres are the focal points for delivery of health and medical care in the study area. The operational responsibilities of these health centres are to cover medical care, maternal and child health services, family planning, nutrition, health education, school health, control of communicable diseases, protected water supply, environmental sanitation, and collection of vital statistics. These health centres are not well equipped with the medical equipments. There is a lack of proper accommodation and other amenities in these health centres. Doctors and health staff of these health centres are found frequently absent from their duty. The commitment and dedication to the causes on their part are very much lacking. Most of the time they blame others, if they cannot provide medicine they complain about the supply. Most of the time they blame the ignorance of the tribal people, as they are not seeking modern medical help. They also have lack of patience to listen to others. Another very interesting finding is that doctors' often remain busy with their private practices at their residence. At a glance it is observed that the health workers are conducting only immunisation both for child and mothers twice in a month in addition to the clinical treatment in the primary health centres. As a result, quite a large number of quacks and *ojha* are rendering health care services in the study area. The tribal people mostly depend on their services. All these services involve low cost compared to the services of the modern doctors.

Five types of treatment are available in the study area. These are, (i) the allopathic or western mode of treatment available at the Primary Health Centres, (ii) the allopathic private practitioners, which include unqualified quacks also, (iii) homeopathic treatment available from the qualified and under qualified homeopathic practitioners, (iv) we have found some specialists in some of the tribal villages, who perform both duties of a priest and a medicine man. Sometimes priest and medicine man are different persons also, and (v) in addition to all these, it is also observed that family medicine and household remedies are practiced mostly by experienced old tribal people who practise it within the family and neighbourhood, whereas professional medicines are practiced by the specialists like herbalists, midwife, bone-setter, cupper etc. Services of these people are taken at the time of illness. The use of tribal medicine, particularly the herbs have also been found to be used in illness in the study area. The herbal practitioners have complained that due to the massive deforestation they are not getting most of the herbs commonly used for the treatment of diseases. The social and cultural dimensions of tribal health in the study area have undergone a series of change since last hundred years. Like other human beings, tribals also want relief from diseases and as other means of treatments except traditional practitioners are not available in their doorsteps, they oblige to depend first on traditional practices of health. A mixed behaviour of modern and traditional concept in regard to health and diseases is being observed in the study area.

The Tribal Concept and Belief of Health, Disease and Treatment

The World Health Organisation has defined the concept of health as, 'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (Lewis, 1976, p.94). The basic concept of health and disease, in this sense, needs an empirical investigation in various societies for acquiring specific details. The tribals normally expect, healthy body and the strength to perform normal duties so that one does not become a mental and financial burden of the family. We have found mixed responses in the tribal mind

about the concept of health, disease, and treatment in the target villages under the Tagore Society for Rural Development and in the non-target villages. To the tribals irrespective of the Santals and Oraons of the study area, the meaning of the term health is similar. It is the right condition of the body and proper functioning of the body as well. Those who are regarded as healthy, can take heavy food, have a good muscular body and are able to do hard work.

Rivers (1924:5-8) has subscribed that the diseases in primitive society are caused by (a) the projection of morbid objects or substances, (b) abstraction of something from the body, and (c) the action of sorcerers on some parts of the body or some objects once connected with the body of a person. Most of the tribals in the study area have similar concept of disease in respect of first and third conditions of diseases as subscribed by Rivers. As thought by the tribal mind most of the diseases are thought to be caused by supernatural being; a deity or a god or a non-human being such as ghost, ancestor or evil spirits or diseases are caused exclusively by magical means by sorcerers and witches and the diseases caused by natural means. Belief in supernatural beings occupies an essential part of their society. They believe that some of the diseases like, *basali*, white discharge, miscarriage and heavy bleeding during menstruation are caused due to wrath of supernatural being, sorcery, spirit intrusion, evil eye and breach of norm or taboo. Some of the diseases are caused due to physical work, climate changes and intake of wrong or excessive food; these diseases may be classified as non-supernatural diseases. We classify the tribal beliefs regarding the causes of illness as, (i) due to ill health; some of the diseases may be caused due to hard physical work, climate changes and intake of wrong or excessive food etc, i.e., scientific causes of illness (ii) traditional belief; dissatisfaction of the supernatural being, wrath of supernatural being, sorcery, spirit intrusion, evil eye, breach of norm or taboo and magical means, (iii) mixed belief regarding illness; belief on both the traditional and scientific causes of illness.

Table 11 depicts the views of the respondents about illness and treatment of diseases during illness in the villages under the Tagore Society for Rural

Development. As a whole 30.84 per cent of the tribals of the target villages believe that illness or suffering of the family members is due to dissatisfaction of the supernatural being or ancestral spirit and 36.92 per cent believe that it is due to ill health. Whereas 31.31 per cent of the tribals have the mixed concept of belief regarding illness: it may be attributed to one cause on one occasion and to some other cause on other occasion. The comparative analysis of the respondents of literate and illiterate tribals of the target villages gives us very interesting results. Among literate tribals, 28.33 per cent believe that illness or sufferings of the family members is due to dissatisfaction of the supernatural being or ancestral spirit, while 38.33 percent believe that it is due to ill health and 33.33 per cent of the literate tribals have mixed concept regarding the causes of illness. However in case of illiterate tribals, 31.82 per cent till have traditional belief regarding illness, while 36.36 per cent believe on the scientific causes of disease, which is due to ill health, and 30.52 per cent among the illiterate respondents have mixed concept regarding illness.

The differential view of the respondents of the Santals and the Oraons of the villages under the Tagore Society for Rural Development shows interesting findings. It is reported that 37.50 per cent of the Santals and 36.17 per cent of the Oraons have changed their attitudes towards modern practices and believe in the scientific causes of disease. However, 28.33 per cent of the Santals and 34.04 per cent of the Oraons still believe in the traditional causes of illness. But 34.17 per cent of the respondents belong to the Santal community and 29.79 percent of the Oraon respondents possess a mixed concept of belief regarding illness. The scenario between literate and illiterate varies significantly. It is reported that 38.88 per cent of the literate Santals have changed their attitudes towards modern medicine and believe in the scientific causes of illness, however 27.77 per cent of them till have traditional belief regarding the causes of illness and 33.33 percent have a mixed concept of belief regarding illness. Likewise, we have found that 37.50 per cent of the literate Oraon respondents believe in the scientific causes of disease, while 29.17 per cent of them have traditional belief regarding illness and 33.33 per cent have mixed concept about the causes of

disease. In case of illiterate Santals, 36.90 per cent believe in the scientific causes of illness, while 28.57 per cent of them still believe in the traditional causes of illness and 34.52 percent have mixed concept regarding illness. However 35.71 per cent of the illiterate Oraons believe in the scientific causes of illness, same percentage of Oraons have belief in the traditional causes of illness and 28.50 per cent among them have mixed concept regarding the causes of disease (Table 11).

Table 11 also shows that only 8.88 per cent of the tribals of the villages under the Tagore Society for Rural Development prefer to consult modern doctor first for treatment, 3.74 per cent of them prefer to consult *ojha* first for their treatment, while 14.01 per cent of the respondents in general prefer to consult either quack or *ojha* first, however 12.62 per cent prefer to consult quack or modern doctor first for their treatment and 60.75 per cent of the respondents prefer anything among available facilities like *ojha*, quack, modern doctor etc first for consultation in case of illness. In regard to the literate tribals, we find slightly different results, 11.67 per cent of the literate respondents prefer to consult modern doctor first for the treatment of diseases and no one of them prefer to consult *ojha* first for treatment in case of illness. Whereas 10 per cent of them prefer to consult either *ojha* or unqualified quack first in case of illness and the preferences of 21.67 per cent is to consult either quack or modern doctor, whichever is available first for their treatment but 56.66 per cent prefer to consult first any means available in their locality. However only 7.79 per cent of the illiterate tribals prefer to consult first modern doctor for treatment, 5.19 per cent prefer to consult only *ojha* first for treatment, 15.58 per cent prefer to consult either quack or *ojha* first, while 9.09 per cent of the illiterate tribals prefer to consult either quack or modern doctor first and 62.34 per cent of them prefer to consult any available facilities in their locality first. In general the tribals try *ojha* first for their treatment, if *ojha* fails then they go to the quacks or any other medicine accessible to them. Sometimes, they try one or more alternatives at the same time of their treatment. If modern medicine fails or fails to gain confidence among the tribals during treatment, they finally return back to the *ojha*.

We have found that, 11.67 per cent of the Santals of the target villages prefer to consult modern doctor first, while 5 percent prefer to consult *ojha* first, though 15 per cent of them prefer to consult either quack or *ojha*, whichever is available first and same percentage of the respondents prefer to consult either quack or modern doctor first and 60.83 per cent of them prefer to consult any available facilities at their locality first, if needed for the treatment of diseases. The difference of opinions between literate and illiterate respondents is prominent. In case of literate Santal, 13.89 per cent of the respondents prefer to consult modern doctor first for the treatment of diseases. No one of them prefers to consult *ojha* first. However 8.33 per cent of the literate respondents prefer to consult either *ojha* or quack first, whichever is available, while 22.22 per cent among them prefer to consult either quack or modern doctor first and 55.56 per cent prefer to consult anything available for their treatment first. The preference for the consultation of modern doctor first for treatment among illiterate respondents is only 10.71 per cent. While 7.14 per cent of them prefer to consult *ojha* first for the treatment of diseases, 17.86 per cent prefer to consult either *ojha* or quack first, only 1.19 per cent of them prefer to consult either quack or modern doctor first but 63.10 per cent prefer to consult anything available for the treatment of diseases first (see Table-11).

In case of the Oraon respondents (Table-11), we have found that in general only 5.32 per cent prefer to consult modern doctors first for their treatment. Very few respondents (2.12 per cent) of them prefer to consult *ojha* first. However, 12.76 per cent of the respondents prefer to consult either quack or *ojha*, whichever is available first for their treatment in case of illness. It is reported that 19.15 per cent of them prefer either quack or modern doctor first, while 60.64 per cent of the respondents prefer to consult any available facilities for treatment first. Only 8.33 per cent of the literate Oraon respondents prefer to depend on modern doctors first. However no one among the literate Oraons prefer to depend on

ojha first for their treatment. Whereas 12.50 per cent of them prefer to consult either quack or *ojha* first for treatment, while 20.83 per cent of the literate Oraon respondents prefer to depend first either on quacks or on modern doctors and 58.33 per cent prefer to depend first on any available facilities for the treatment of illness. In case of the illiterate Oraon respondents, a very few respondents (only 4.29 per cent and 2.86 per cent respectively) prefer to consult modern doctor first and depend on *ojha* first. However, 12.86 per cent prefer to consult first either quack or *ojha*, while 18.57 per cent prefer to consult first either quack or modern doctor and 61.43 per cent prefer to consult first anything available for treatment.

The picture of non-target villages is not the same, as the picture has described the tribals of the target villages regarding concept and belief of health, disease, and treatment. If we analyse the Table 12, it depicts that only 14.81 per cent of the tribals of the non-target villages believe that illness or suffering of the family members is due to ill health, 67.78 per cent of the tribal respondents believe that the causes of illness is due to the dissatisfaction of the supernatural being, whereas only 17.41 per cent of them believe in both. The comparisons of literate and illiterate respondents gives that 35.53 per cent of the literate respondents believe in the scientific causes of illness, 38.16 per cent of them still have faith in the traditional causes of illness and 26.32 per cent believe that illness might be caused by natural and supernatural both. However, only 6.70 percent of the illiterate respondents believe in the scientific causes of illness, 79.38 per cent of them believe that the causes of illness is due to the dissatisfaction of the supernatural being, and 13.92 per cent believe in both.

However, 15 per cent of the Santal respondents of the non-target villages believe in the scientific causes of illness, whereas 67.27 per cent believe that diseases are attributed to the dissatisfaction of the supernatural being and 17.73 per cent of them believe in both. Whereas 35.48 per cent of the literate Santal respondents and only 6.96 per cent of the illiterate Santal respondents believe in the scientific causes of illness, but 37.10 per cent of the literate Santal respondents and as much as 79.11 per cent of the illiterate Santal respondents

believe that diseases are due to the dissatisfaction of the supernatural being, while 27.42 per cent of the literate Santal respondents and 13.92 per cent of the illiterate Santal respondents have mixed concept and belief regarding illness. In case of the Oraons, only 14 per cent respondents believe in the scientific causes of illness, 70 per cent of them are still reported to believe in the traditional causes of diseases and only 16 per cent regard that both the ill health and dissatisfaction of the supernatural being are the causes of diseases. However, 35.71 per cent of the literate respondents and only 5.56 per cent of the illiterate respondents are reported to believe in the scientific causes of illness, but 42.86 per cent of the literate respondents and 80.55 per cent of the illiterate respondents has a belief in the dissatisfaction of the supernatural being, magical means for illness. Whereas 21.43 percent of the literates and 13.88 per cent of the illiterates regard that both the ill health and dissatisfaction of the supernatural being are the causes of illness (see Table-12).

In regard to the consult for treatment of the non-target villages (Table-12), we have found interesting results. Only 6.30 percent of the tribals of the non-target villages prefer to depend first on the modern doctors for their treatment, but 11.85 percent of them prefer first on *ojha*, while 41.85 per cent of the tribal respondents prefer first either on quack or *ojha*, however, 7.78 per cent of the tribals have reported to prefer first either quack or modern doctor for the treatment of diseases and 32.22 per cent of the tribals prefer to consult quack, modern doctor and *ojha*, whichever is available first for their treatment. The pictures of literate tribals is slightly different than that of illiterate tribals, as 10.53 per cent of the literate tribals and only 4.64 per cent of the illiterate tribals prefer to depend first on modern doctors for their treatment. However, 16.49 per cent of the illiterate tribals consult first *ojha* for treatment and no one of literate tribals prefer first on *ojha*. Only 17.11 per cent of the literate and 51.55 per cent of the illiterate tribals are reported to prefer first either *ojha* or quack for treatment, while 21.05 per cent of the literate tribals and only 2.58 per cent of the illiterate tribals prefer to consult first either quack or modern doctor. However, 51.32 per cent of

the literate tribals and 24 per cent of the illiterate tribals prefer to consult first anything available for the treatment of diseases.

We have found that only 6.82 percent of the Santals of the non-target villages prefer to consult modern doctor first for their treatment, while 11.36 per cent of them prefer to consult first *ojha*, but 41.82 per cent prefer first either quack or *ojha* for their illness, 7.73 per cent prefer to believe in quack or *ojha* first and 32.27 of them prefer to depend first on anything available in their area for treatment during illness. Whereas, the percentage of literate Santals prefer to consult modern doctor first for treatment (11.29 per cent) is more than double than that of the illiterate Santals (5.06 Per cent). No one of the literate Santals prefer first to depend on *ojha* for treatment during illness, but 15.82 per cent of the illiterate Santals prefer to consult first *ojha* for treatment. However, 16.13 per cent of the literate Santals and 51.90 per cent of the illiterate Santals prefer to consult either *ojha* or quack, whichever is available both for treatment first. It is reported that 20.97 per cent of the literate Santals and only 2.53 per cent of the illiterate Santals prefer to consult first either quack or modern doctor during illness. Though 51.61 per cent of the literate Santals and 24.68 per cent of the illiterate Santal prefer to consult first anything available for the treatment of diseases (see Table-12).

In case of the Oraons (Table-12), we have found that only 4 percent of the respondents are reported to prefer modern doctors first, whereas 14 per cent of them prefer to consult first *ohja*, but 42 per cent prefer to consult first either quack or *ojha*, however, 8 per cent of them prefer first to depend either on quack or modern doctors and 32 per cent of the respondents prefer first to consult *ojha*, quack, and modern doctor anything available for the treatment of diseases. Whereas only 7.14 per cent of the literate respondents prefer to consult first modern doctors and no one from illiterate respondents show first preferences for modern doctors. Similarly, no one from literate respondents shows first preferences for *ojha*, though 19.44 per cent of the illiterate respondents prefer first to consult *ojha* for the treatment of diseases. However, 21.43 per cent of the

literate respondents and 50 per cent of the illiterate respondents prefer to consult first either *ojha* or quack and 21.43 per cent of the literate respondents and only 2.78 per cent of the illiterate respondents prefer to consult first either quack or modern doctor. About half of the literate respondents (50 per cent) and one-fourth of the illiterate respondents (25 per cent) prefer first to try *ojha*, quack and modern doctor for the treatment of diseases.

We have found the significant differences in the tribal concept and belief in health, disease, and treatment between the respondents of the target and non-target villages and also among the literate and illiterate tribals. The tribals of both the areas still believe in the traditional concept of health, disease, and treatment. The study reveals that in spite of faith of the tribals in traditional folk healing tribals are not apathetic to accept modern health care practices. Tribals' minds have already been shifted to some extent to the modern concept of health, disease, and treatment due to their exposure to modern medicine and education. It is also observed that though the tribals believe that dissatisfaction of the supernatural being is the cause of some diseases, they may consult modern doctor, if available for treatment. In most of the cases tribals first call the available facilities for their treatment of diseases, *ojha*, if they fail the local *ojha* may call another *ojha* from outside the villages. If all these fail, the patient may consult quack, the other easy available means for consultation, which offer allopathic and indigenous system of medicine. Lastly, if all these fail, they consult modern doctor of the local health centre. This is common with little variation among all the tribals of the study area. Tribals of the target villages are slightly advanced in regard to the modern health care practices. The educated tribals of the study areas are also slightly advanced regarding modern health care practices. The comparison between the Santals and Oraons of both the areas shows that the Santals are little advanced regarding modern health care practices. Here we also have observed that the literate Santals and Oraons are advanced regarding modern health care practices than their illiterate counterparts.

Table 11
Views of the respondents regarding illness and preferences for treatment of diseases in the target villages

| Tribal groups | Beliefs regarding illness | | | First consultation for treatment | | | | | Total |
|---------------|---------------------------|---|---------------|----------------------------------|------------------------------|---------------------------|-------------------------|---|----------------|
| | Due to ill health (%) | Illness caused by supernatural beings (%) | Both (%) | MBBS Doctor (%) | Traditional Medicine man (%) | Quack / Folk medicine (%) | Quack / MBBS Doctor (%) | MBBS doctor / Traditional Medicine man or Quack (%) | |
| Santal | 45 (37.50) | 34 (28.33) | 41 (34.17) | 14 (11.67) | 06 (5.00) | 18 (15.00) | 09 (7.50) | 73 (60.83) | 120 (100) |
| Literate | 14 (38.89) | 10 (27.78) | 12 (33.33) | 05 (13.89) | 0 (0) | 03 (8.33) | 08 (22.22) | 20 (55.56) | 36 (30.00) |
| Illiterate | 31 (36.90) | 24 (28.57) | 29 (34.52) | 09 (10.71) | 06 (7.14) | 15 (17.86) | 01 (1.19) | 53 (63.10) | 84 (70.00) |
| Oraon | 34 (36.17) | 32 (34.04) | 28 (29.79) | 05 (5.32) | 02 (2.13) | 12 (12.77) | 18 (19.15) | 57 (60.64) | 94 (100) |
| Literate | 09 (37.50) | 07 (29.17) | 08 (33.33) | 02 (8.33) | 0 (0) | 03 (12.50) | 05 (20.83) | 14 (58.33) | 24 (25.53) |
| Illiterate | 25 (35.71) | 25 (35.71) | 20 (28.58) | 03 (4.29) | 02 (2.86) | 09 (12.86) | 13 (18.57) | 43 (61.43) | 70 (70.47) |
| Total | 79 (36.92) | 66 (30.84) | 67 (31.31) | 19 (8.88) | 08 (3.74) | 30 (14.02) | 27 (12.62) | 130 (60.75) | 214 (100) |
| Literate | 23 (38.34) | 17 (28.33) | 20 (33.33) | 07 (11.67) | 0 (0) | 06 (21.67) | 13 (56.66) | 34 (56.66) | 60 (28.04) |
| Illiterate | 56 (36.36) | 49 (31.82) | 47 (30.52) | 12 (7.79) | 08 (5.19) | 24 (15.59) | 14 (9.09) | 96 (62.34) | 154 (71.96) |

Table 12
Views of the respondents regarding illness and preferences for treatment of diseases in the non-target villages

| Tribal groups | Beliefs regarding illness | | | First consultation for treatment | | | | | Total |
|---------------|---------------------------|---|---------------|----------------------------------|------------------------------|---------------------------|-------------------------|---|----------------|
| | Due to ill health (%) | Illness caused by supernatural beings (%) | Both (%) | MBBS Doctor (%) | Traditional Medicine man (%) | Quack / Folk medicine (%) | Quack / MBBS Doctor (%) | MBBS doctor / Traditional Medicine man or Quack (%) | |
| Santal | 33 (15.00) | 148 (67.27) | 39 (17.73) | 15 (6.82) | 25 (11.36) | 92 (41.82) | 17 (7.73) | 71 (32.27) | 220 (100) |
| Literate | 22 (35.48) | 23 (37.10) | 17 (27.42) | 07 (11.29) | 0 (0) | 10 (16.13) | 13 (20.97) | 32 (51.62) | 62 (28.18) |
| Illiterate | 11 (6.96) | 125 (79.11) | 22 (13.92) | 08 (5.06) | 25 (15.82) | 82 (51.90) | 04 (2.53) | 39 (24.68) | 158 (71.82) |
| Oraon | 07 (14.00) | 35 (70.00) | 08 (16.00) | 02 (4.00) | 07 (14.00) | 21 (42.00) | 04 (8.00) | 16 (32.00) | 50 (100) |
| Literate | 05 (35.71) | 06 (42.86) | 03 (21.43) | 01 (7.14) | 0 (0) | 03 (21.43) | 03 (21.43) | 07 (50.00) | 14 (28.00) |
| Illiterate | 02 (5.56) | 29 (80.56) | 05 (13.88) | 01 (2.78) | 07 (19.44) | 18 (5.00) | 01 (2.78) | 09 | 36 (72.00) |
| Total | 40 (14.81) | 183 (67.78) | 47 (17.41) | 17 (6.30) | 32 (11.85) | 113 (41.85) | 21 (7.78) | 87 (32.22) | 270 (100) |
| Literate | 27 (35.53) | 29 (38.16) | 20 (26.32) | 08 (10.53) | 0 (0) | 13 (17.11) | 16 (21.05) | 39 (51.32) | 76 (28.15) |
| Illiterate | 13 (6.70) | 154 (79.38) | 27 (13.92) | 09 (4.64) | 32 (16.49) | 100 (51.55) | 05 (2.58) | 48 (24.74) | 194 (71.85) |

Primary Health Centre and the Tribal people

The health services available in the Primary Health Centre are free of cost. In spite of this, most of the people are not interested to avail the services of the Primary Health Centre due to various reasons. Sometimes, as there are no other alternatives, most of the poor tribals are bound to take the services of the Primary Health Centre. Those who are not interested to visit the hospital have stated the reasons also. Some of the reasons for not visiting hospitals are identified as; (i) belief in folk medicine, (ii) inadequate medical facilities of the hospital, (iii) overall services are not satisfactory, (iv) negligence of the health staff, (v) lack of communication and high cost. The money required to avail the services of the doctor of the Primary Health Centre varies from Rupees 10.00 to Rupees 35.00. Most of the time doctor is not available in the Outdoor Patient Department who remains busy doing private practices in the residence. Most of the medicines prescribed by the doctor are also not available in the Primary Health Centre. These are to be purchased from the open market. All these increase the cost of treatment of a patient. It is also observed that same respondents have reported number of causes for not visiting the Primary Health Centre. If we analyse the Table 13 and 14, its clearly shows the comparative perspective of awareness of the Santals and Oraons of the target and non-target villages, regarding free health services and reasons of non-acceptance of the free health services and the comparative aspect of impact of literacy regarding acceptance and rejection of free health services.

Analysis of the table 13 shows that in general, 75.70 per cent of the tribal respondents in the target villages are aware of the free health services. The literate tribals (83.33 per cent) are more aware of free health services than the illiterate tribals (72.73 per cent). If we compare between the Santals and Oraons of the target villages, it is seen that 79.17 per cent of the Santal respondents are aware of free health services compared to 71.28 per cent of the Oraon respondents. However, 83.33 per cent of the literate Santals and the same percentage of literate Oraon respondents are aware of the free health services. And 77.38 per cent of the illiterate Santal respondents and 67.14 per cent of the

illiterate Oraon respondents are aware of the free health services. It is reported that 56.07 per cent in the tribals of the target villages are visiting the government hospital, though 65 per cent of the literate tribals are visiting hospital and 52.60 per cent of the illiterate tribals visit hospital. However, 60 per cent of the Santal respondents and 51.06 per cent of the Oraon respondents usually visit hospital. It is also observed that 63.89 per cent of the literate Santals and 66.67 per cent of the literate Oraons visit hospital. Among the illiterates, 58.33 per cent of the Santals visit hospital and 45.71 per cent of the Oraons visit hospital.

It is reported that, 8.51 per cent of patients of the target villages are not interested in visiting the government hospitals, as they still believe in folk medicine (see Table-13). Though no one of the literate tribals has belief in folk medicine as a reason for not visiting the hospital, 10.96 per cent of the illiterate tribals are not interested in visiting hospital as they have strong belief in folk medicine. While among the Santals, in general, only 12.50 per cent are not interested in visiting hospital as they have strong belief in folk medicine. No one of the literate Santals has belief in folk medicine as a reason for not visiting the hospital. Though 17.14 per cent of the illiterate Santals have been reported to have strong belief in folk medicine as a result they are not interested in visiting the hospital. Whereas among the Oraons, only 4.35 per cent are reported to have strong belief in folk medicine as they are not interested in visiting the hospital, but no one of the literate Oraons have identified the belief in folk medicine as a cause for not visiting the hospital, however 5.26 per cent of the illiterate Oraons are identified having belief in folk medicine as one of the reasons for not visiting the hospital.

It has been observed that, in general, as many as 79.79 per cent of the respondents of the target villages, are not interested in visiting the hospital due to inadequate medical facilities. As many as 80.95 per cent of the literate tribal respondents and 79.45 per cent of the illiterate tribal respondents have reported that they are not interested to visit the government hospital due to inadequate medical facilities. In case of the Santals, it is observed that as many as 83.33 per cent of the respondents are not interested to visit the government hospital, while

76.92 per cent of the literate and 85.71 percent of the illiterate respondents are not interested in visiting the hospital. In case of the Oraons, we have found that as many as 76.09 per cent of the Oraons in general are not interested to visit the hospital due to this reason. Where 87.50 per cent of their literate respondents and 73.68 per cent of the illiterate respondents are not interested to visit the hospital due to inadequate medical facilities (Table-13).

In general, it is reported that 65.95 per cent of the tribals in the target villages are not interested to visit the hospital, as overall services of the hospital are not satisfactory (Table-13). However, 66.67 per cent of the literate tribals and 65.75 per cent of the illiterate tribals are not interested to visit the hospital due to the same reason. In case of the Santals, in general 62.50 per cent of them are not interested to visit the hospital due to unsatisfactory overall services, of which, 61.54 per cent of their literate and 62.86 per cent of their illiterate are not interested to visit the hospital. Among the Oraons, 69.57 per cent are not interested to visit the hospital due to unsatisfactory service condition of the hospital. Among them, 75 per cent of the literate and 68.42 per cent of the illiterate do not visit the hospital due to the same reason.

In general, 59.57 per cent of the tribals in the target villages have identified negligence of the health staff as one of the reasons for not visiting the hospital, of whom, 57.14 per cent literate tribals have reported to identify the same reasons for not visiting the hospital, but as many as 60.27 per cent illiterate tribals are not interested in visiting the hospital due to the negligence of the health staff (Table-13). In case of the Santals, in general, 60.42 per cent of the respondents have reported that due to the negligence of the health staff, they are not interested to visit the hospital, among them, 53.85 per cent literate Santals and 62.86 per cent illiterate Santals have reported the same reasons. Among the Oraons, in general, 58.70 per cent of the respondents have reported that they are not interested to visit the hospital due to the same reason, of which, 62.50 per cent and 57.89 per cent are literate and illiterate (see Table-13).

The Primary Health Centres are situated in Balapur and Tapan. Inaccessibility is another reason and the tribals have been identified for not visiting the hospital for this reason. In general, 55.31 per cent of the respondents in the target villages are not visiting the hospital due to the lack of communication, of whom, 42.86 per cent are literate, and 58.9 per cent are illiterate. It is reported that among the Santals, in general, 45.83 per cent are not visiting the hospital due to poor communication. Among them, 53.85 per cent of the literate and 42.86 per cent of the illiterate Santals do not take services of the hospital for poor communication. Among the Oraons, it is observed that 65.22 per cent do not go to the hospital due to this reason. A larger section of the population of the Oraons, i.e, 62.50 per cent and 65.79 per cent of the literate and illiterate respondents respectively do not visit the hospital due to the same reason. It is reported that 65.95 per cent of the tribals in the target villages are not visiting the hospital due to the hidden cost of the services of the hospital of whom, 61.90 per cent and 67.12 per cent are literate and illiterate respectively. About, 66.67 per cent of the Santals are not interested to visit the hospital as the services seems to be costly for them, of those, 53.85 per cent and 71.43 per cent are literate and illiterate respectively. Among the Oraons, 65.22 per cent are not interested to visit the hospital due to high cost, of which, 75 per cent and 63.16 percent are literate and illiterate respectively (see Table-13).

Tribals of the non-target villages are lagging behind than their counterpart of the target villages in adopting modern medicine. Analysis of the Table 14 shows that in general, 57.41 per cent of the tribals in the non-target villages are reported to be aware of free health services of the government hospital. As many as 72.37 per cent literate respondents and 64.94 per cent illiterate respondents have reported that they are aware of this fact. Among the Santals, it is observed that 57.27 per cent respondents are aware this fact, of whom, 72.58 per cent and 51.27 per cent literate and illiterate respondents respectively are aware of free government health services. It is reported that among the Oraons, 58 percent are aware of free government health services and 71.43 percent literate Oraons and 52.78 per cent illiterate Oraons are aware of free government health services.

Table 13
Awareness in free health services and reasons for Non-acceptance of the target villages

| Tribal groups | Awareness in free health services | | | | Reasons for not visiting the hospital | | | | | | Total (%) |
|---------------|-----------------------------------|---------------|--------------------|---------------------------|---------------------------------------|--|-------------------------------------|---|----------------------------------|---------------|----------------|
| | Aware (%) | Not Aware (%) | Visit Hospital (%) | Not Visiting Hospital (%) | <u>Belief in folk medicine</u> (%) | <u>Inadequate medical facilities</u> (%) | <u>Service not satisfactory</u> (%) | <u>Negligence of the health staff</u> (%) | <u>Lack of communication</u> (%) | Costly (%) | |
| Santal | 95 (79.17) | 25 (20.83) | 72 (60) | 48 (40) | 06 (12.5) | 40 (83.33) | 30 (62.5) | 29 (60.42) | 32 (66.67) | 32 (66.67) | 120 (100) |
| Literate | 30 (83.33) | 06 (16.67) | 23 (63.89) | 13 (36.11) | 0 (0) | 10 (76.92) | 08 (61.54) | 07 (53.85) | 07 (53.85) | 07 (53.85) | 36 (30.00) |
| Illiterate | 66 (77.38) | 19 (22.62) | 49 (58.33) | 36 (41.67) | 06 (17.14) | 30 (85.71) | 22 (62.86) | 22 (62.86) | 15 (42.86) | 25 (71.43) | 84 (70.00) |
| Oraon | 67 (71.28) | 27 (28.72) | 48 (51.06) | 46 (48.94) | 02 (4.35) | 35 (76.09) | 32 (69.57) | 27 (58.70) | 30 (65.22) | 30 (65.22) | 94 (100) |
| Literate | 20 (83.33) | 04 (16.67) | 16 (66.67) | 08 (33.33) | 0 (0) | 07 (87.50) | 06 (75.00) | 05 (62.50) | 05 (62.50) | 06 (75.00) | 24 (25.53) |
| Illiterate | 47 (67.14) | 23 (32.86) | 32 (45.71) | 38 (54.29) | 02 (5.26) | 28 (73.68) | 26 (68.42) | 22 (57.89) | 25 (65.79) | 24 (63.16) | 70 (74.47) |
| Total | 162 (75.70) | 52 (24.30) | 120 (56.07) | 94 (43.93) | 08 (8.51) | 75 (79.79) | 62 (65.96) | 56 (59.57) | 52 (55.32) | 62 (65.96) | 214 (100) |
| Literate | 50 (83.33) | 10 (16.67) | 39 (65.00) | 21 (35.00) | 0 (0) | 17 (80.95) | 14 (66.67) | 12 (57.14) | 09 (42.86) | 13 (61.90) | 60 (28.04) |
| Illiterate | 112 (72.73) | 42 (27.27) | 81 (52.60) | 73 (47.40) | 08 (10.96) | 58 (79.45) | 48 (65.75) | 44 (60.27) | 43 (58.9) | 49 (67.12) | 154 (71.96) |

In general, 41.86 per cent tribals in the non-target villages are interested to visit the government hospital, of which, 59.21 per cent are literate and 36.60 per cent are illiterate. In case of the Santals, it is reported that 43.18 per cent are interested to visit the hospital. Comparison between literate and illiterate Santals shows that, 59.68 per cent and 36.71 percent of the literate and illiterate respondents respectively are interested to visit the hospital. Among the Oraons, 42 per cent are interested to visit the hospital, of whom, 57.14 per cent are literate, and 36.11 per cent are illiterate. The analysis of the reasons for not visiting hospitals by the respondents of the non-target villages gives us interesting results. In general, 20.78 per cent of the tribals are not visiting the hospital due to their belief in folk medicine. However, 12.90 per cent literate tribals and 22.76 per cent illiterate tribals are not interested to visit the hospital due to their belief in folk medicine. Among the Santals, 20 per cent are not interested to visit the hospital due to their strong belief in folk medicine, of which, 12 per cent are literate, and 22 per cent are illiterate Santals. Among the Oraons, 24.14 per cent are not interested to visit the hospital due to their faith in folk medicine; of whom, 16.67 percent and 26.09 per cent are literate, and illiterate Oraons (Table 14).

It is observed that as many as 69.48 per cent respondents of the non-target villages who are not visiting the hospital have reported that inadequate medical facilities in the hospital are one of the reasons for not visiting the hospital (Table-14). About 74.19 per cent of the literate respondents and 68.29 per cent of the illiterate respondents respectively are not interested in visiting the hospital due to inadequate medical facilities. Among the Santals, as many as 68.8 per cent are not visiting the hospital due to inadequate medical facilities of which, 76 per cent of the literate Santals and 67 per cent of the illiterate Santals are not interested in visiting the hospital for the same reasons. In case of the Oraons, 72.41 per cent are not visiting the hospital for the same reasons. However, more illiterate respondents (73.91 per cent) than literate respondents (66.67 per cent) are not interested in visiting the hospital for the inadequate medical facilities. However, 61.04 per cent of the tribals in the non-target villages have reported that services of the hospital are not satisfactory. More literate tribals (64.52 per cent) than their

illiterate counterparts (60.16 per cent) are not satisfied with the overall services of the hospital. It is reported that more Oraon respondents (62.07 per cent) than their Santal counterparts (60.80 per cent) have the opinion that they are not interested in visiting the hospital as the services of the hospital are not satisfactory. More literate respondents (64 per cent of the Santals and 66.67 per cent of the Oraons) than their illiterate counterparts (60 per cent of the Santals and 60.87 per cent of the Oraons) are not interested in visiting the hospital, as overall services are not satisfactory (see Table 14).

However, 85.71 per cent of the tribals of the non-target villages have reported that they are not interested in visiting the hospital for the negligence of the health staff (see Table -14), of whom, 70.97 per cent are literate and 89.43 per cent are illiterate. Slightly more Oraons (86.21 per cent) than the Santals (85.60 per cent) have reported that for the negligence of the health staff they are not interested in visiting the hospital. Likewise, more literate Oraons (83.33 per cent) than their Santal counterparts (68 per cent) are not interested in visiting the hospital for the same reason. In case of illiterate respondents, 90 per cent of the Santals compared to the 86.96 per cent of the Oraons have identified the same reason for not visiting the hospital. Communication is not a barrier to the tribals of the non-target villages. Most of them are staying close to the Primary Health Centres. However, 26.62 per cent are not visiting the hospital, have reported lack of communication as one of the reasons. About 29.03 per cent and 26.02 per cent of the literate and illiterate respondents are not visiting the hospital for communication problem. Among the Santals, 25.60 per cent are not visiting the hospital due to the lack of communication; of whom, 32 per cent of the literate respondents, and 24 per cent of the illiterate respondents do not visit the hospital for this reason. In case of the Oraons, 31.03 per cent do not visit the hospital due to the lack of communication. Among them, 16.67 per cent and 34.78 per cent are literate and illiterate respectively who do not visit the hospital for the same reason. It is also reported that 61.69 per cent of the tribals are not visiting the hospital for the high cost, while almost same percentage of literate and illiterate respondents, i.e, 61.29 per cent literate and 61.79 per cent illiterate respondents have identified the high cost as one of the reasons for not visiting the hospital

(Table-14). In case of the Santals, 61.60 per cent of the respondents are not interested in visiting the hospital as it is expensive, of them, 60 per cent are literate respondents, and 62 per cent are illiterate respondents. In case of the Oraons, 62.07 per cent are not interested in visiting the hospital due to this reason. However, 66.67 per cent and 60.87 per cent of the literate and illiterate Oraons have reported expensive treatment in the health centre.

The awareness of free health services and the percentage of visit of the government hospital by the literate tribals are more than their illiterate counterparts of both the target and non-target villages. The Santals are more aware than the Oraons of both the target and non-target villages. Those who have availed the services of the government health centres are not at all satisfied with the quality of the services; most of the medicines are not available in the health centre, after treatment in most of the cases patients are not cured. Irrational behaviour of the health staff, non-availability of the medical officers, as well as medicines are some of the complaints of the tribals who visit the hospital. They prefer to refer most of the cases to the Balurghat District Hospital as in most of the cases pharmacist or other staff of the hospital treats the patients in the absence of medical officer at the Primary Health Centre. The tribals believe that modern medicine is good to cure diseases but it's not meant for the poor. If some one would like to treat a patient with modern doctor, the cost involved is beyond the limit of most of the tribals. However, quack treats patients more rationally as per the opinion of most of the tribals. They charge less than the modern doctors and the cost of medicines is also less in comparison to the cost of the medicines prescribed by a modern doctor. Further more the payment of fees to a quack may be kept due, which can be paid after harvesting or when the money is available.

Table 14
Awareness in free health services and reasons for Non-acceptance of the non-target villages

| Tribal groups | Awareness in free health services | | | | Reasons for not visiting the hospital | | | | | | Total (%) |
|---------------|-----------------------------------|----------------|--------------------|---------------------------|---------------------------------------|--|-------------------------------------|---|----------------------------------|---------------|----------------|
| | Aware (%) | Not Aware (%) | Visit Hospital (%) | Not Visiting Hospital (%) | <u>Belief in folk medicine</u> (%) | <u>Inadequate medical facilities</u> (%) | <u>Service not satisfactory</u> (%) | <u>Negligence of the health staff</u> (%) | <u>Lack of communication</u> (%) | Costly (%) | |
| Santal | 126 (57.27) | 94 (42.73) | 95 (43.18) | 125 (56.82) | 25 (20.00) | 86 (68.80) | 76 (60.80) | 107 (85.60) | 32 (25.60) | 71 (61.60) | 220 (100) |
| Literate | 45 (72.58) | 17 (27.42) | 37 (59.68) | 25 (40.32) | 03 (12.00) | 19 (76.00) | 16 (64.00) | 17 (68.00) | 08 (32.00) | 15 (60.00) | 62 (28.18) |
| Illiterate | 81 (51.27) | 77 (48.73) | 58 (36.71) | 100 (63.29) | 22 (22.00) | 67 (67.00) | 60 (60.00) | 90 (90.00) | 24 (24.00) | 62 (62.00) | 158 (71.82) |
| Oraon | 29 (58.00) | 21 (42.00) | 21 (42.00) | 29 (58.00) | 07 (24.14) | 21 (72.41) | 18 (62.07) | 25 (86.21) | 09 (31.03) | 18 (62.07) | 50 (100) |
| Literate | 10 (71.43) | 04 (28.57) | 08 (57.14) | 06 (42.86) | 01 (16.67) | 04 (66.67) | 04 (66.67) | 05 (83.33) | 01 (16.67) | 04 (66.67) | 14 (28.00) |
| Illiterate | 19 (52.78) | 17 (47.22) | 13 (36.11) | 23 (63.89) | 06 (26.09) | 17 (73.91) | 14 (60.87) | 20 (86.96) | 08 (34.78) | 14 (60.87) | 36 (72.00) |
| Total | 155 (57.41) | 115 (42.59) | 116 (41.86) | 154 (57.04) | 32 (20.78) | 107 (69.48) | 94 (61.04) | 132 (85.71) | 41 (26.62) | 95 (61.69) | 270 (100) |
| Literate | 55 (72.37) | 21 (27.63) | 45 (59.21) | 31 (40.79) | 04 (12.90) | 23 (74.19) | 20 (64.52) | 22 (70.97) | 09 (29.03) | 19 (61.29) | 76 (28.15) |
| Illiterate | 100 (51.55) | 94 (48.45) | 71 (36.60) | 123 (63.40) | 28 (22.76) | 84 (68.29) | 74 (60.16) | 110 (89.43) | 32 (26.02) | 76 (61.79) | 194 (71.85) |

***Ojha*, Quacks, and the Treatment of Diseases; Few Case Studies**

We may cite here a few case studies of the treatment of diseases, to have a better understanding of the situation. Most of the tribals who prefer modern medicines would like to get treatment from the quack first. One such popular quack of the locality is Najrul, based at Balapur. Najrul has learned treatment from a qualified doctor of the Malancha Primary Health Centre. He has opened a medical shop at Balapur and is now doing good business. It is observed that the patient flow in his chamber is very good. He is also available on call. His fees depend on the ability to pay or economic standard of the patients.

Bharat Oraon of Dakshin Kesrail village is an *ojha*. He treats patient in a number of ways. He has learned this profession from his father. He treats the patient with the magical means, prayers, miracle drugs etc. He also uses herbs if required. His treatment may be summarised as follows. He mostly diagnoses diseases with three type of methods; (i) a cock is sacrificed and ritual ceremony is performed after which he mediates to find out the disease, (ii) reading of pulse and observation and (iii) intuition. The treatment being followed is also of three types: (i) magical treatment, (ii) supernatural worship, and (iii) herbal treatment. In magical treatment *mantras* play a significant role for the cure of diseases. This method of cure is usually taken up when spirit intrusion is suspected. There are different *mantras* for different spirits. When *mantras* are uttered, sometimes lots of actions are involved. In supernatural worship, the supernatural power believed to be responsible for the disease is worshipped with offerings made. This is done with a view to appeasing the deity and consequent withdrawal of the diseases. In herbal treatments, after the diagnosis of the disease herbs are being prescribed which are taken either orally or applied externally. He has reported that he is an expert bone setting with natural herbs.

There are some other tribal *pandit* who either does treatment with the help of the medical herbs or magical means and prayers. It is interesting to come across with an *ojha* in the study area who use all sorts of technique to treat the patient. He treats the patient with modern medicine along with *mantras* and worships. He

prefers prayer, magical means etc, just to satisfy the patient and the patient party. He also knows that it is the modern medicine, which cures the patient. As desired by him willingly we are not putting his name. Tribal even goes out of their village, even out side the study area to seek the help of *ojha* in case of illness. Another interesting observation is that some of the tribals are found to provide sacrifices even to the Hindu deities for the cure of diseases or some other purposes. We may cite a specific example of *Bolla Kali-Mata*. There is a *Kali Mandir*, Hindu goddess at Bolla, 26 kilometer away from the study area. This *Kali Mata* is not only *jagrata* (can do anything she wishes) for the Hindu communities but to the tribals also. Every year hundreds of the tribals come to Bolla to offer sacrifices to their *Kali Mata*.

Economic Conditions and the Treatment of Diseases; Few Case Studies

We already mentioned that the treatment of the diseases vary among the tribals. In addition to the educational status another important factor, which influence the health care practices of any family, is economic status. Though the economic status of the tribals is almost same, few cases are identified whose annual income is more than ^{Rs.} 30,000.00. There are only six cases, which will be cited here. In-depth case studies are done for all these cases, the perception of the respondents regarding causes of diseases and the treatment of it will be discussed in details to have a better understanding of the concept of health, disease and treatment among the tribals. These will also help us to assess the impact of economy on health care practices.

Jatin Murmu lives at Balapur. He has one son and two daughters. Jiten is working in a school and he has primary level of education. This year Marina, his younger daughter was infected by gastrointestinal disease. Jatin immediately admitted her to the nearby Malancha Primary Health Centre and she underwent treatment and came back home after complete cure. Balapur is not the target village of the Tagore Society for Rural Development. However, we have found the impact of modern medicine on Jatin's family. He mostly avails the services of the Primary Health Centre, though he is not at all satisfied with the quality the

services of the Primary Health Centre. Sometimes, he has to go to the private doctors either at Balapur or at Balurghat for treatment. He considers Najrul, a quack at Balapur as a good private doctor. As per Jatin, the incidence of a disease is disorder in certain conditions of human body. He also has a belief that illness is also believed to be caused by mental, spiritual and moral disorders. Likewise, Budhra Hemram of Balapur was also interested in modern medicine. Last year his son Ramen, aged 13 years was infected by gastrointestinal disease and he was treated at Primary Health Centre. Kain Murmu of Balapur also sought the help of modern doctor during illness and he has no faith in the traditional practices.

Khara Hasda, 55 years old, is the domicile of the village Sondapukur. His wife Baha had been suffering from various ailments for the last two years. After consultation of the village *ojha*, it was reported that she had been attacked by evil spirit and until this evil spirit was satisfied, it would attack the family members one after another and ruin the family. According to the advices of the *ojha*, every arrangement had been made for practising the art of witchcraft but nothing had happened. He then consulted another *ojha* from the neighboring village. The *ojha* gave him folk medicine, for the time being she was all right. After a few days, again she had severe headache and consulted quack at Balapur, who identified that it was a case of menopause. Khara has strong belief in folk medicine.

Banduram Oraon lives in Chamtakuri, a target villages of the Tagore Society for Rural Development. He was suffering from severe stomach pain. He had consulted modern doctor for his treatment and doctors identified that it was the case of gastric ulcer. With the financial support of the Tagore Society for Rural Development he had undergone long treatment at Balurghat and then he was fully cured after a surgery. Similarly Pradip, a Madhaymik passed cultivator living in the same village. He had no faith in traditional medicine, for any kind of treatment he consulted modern doctors. Both Pradip and Banduram were the active group members run by the Tagore Society for Rural Development. They agreed that they had faith in traditional practices but gradually inclined to develop faith in modern medicine.

Biswanath Oraon of Dakshin Kesrail village had been suffering from tuberculosis for a few years. It was identified by the doctor of the Tagore Society for Rural Development and was referred to Balurghat for further treatment. He had undergone full course of treatment and came back to the village after cure. Now he is teaching in a non-formal school run by the Tagore Society for Rural Development. He also works as a Health Educator of the Society. His wife runs a women group in their village. She has agreed that due to the intervention of the Tagore Society for Rural Development in their village, a lot of changes in health care practices are observed. People are now frequently going for modern treatment, and the faith in folk medicine is declining gradually.

Some prevalent Diseases among the Tribal People

The tribals are capable of identifying various kinds of ailments and diseases within the limit of their own respective world-view. The parochial names and the details of these are familiar to them. Whether their understanding and identifying are scientific or not is a different issue. We will discuss here some of the diseases; knowledge of the tribals regarding these diseases etc, in a comparative perspective. If the tribals at least know the name of the diseases, we will consider that they have some knowledge of the diseases.

Tuberculosis

Tuberculosis is a prevalent disease found in the study area. Most of the tribals of the study area are aware of the disease. Tables 15 and 16 show the percentage of respondents having some knowledge of the disease or at least they know the name of the disease. It is reported that 85.51 per cent of the tribals of the target villages have some knowledge about the disease (Table-15), of whom, 93.33 per cent are literate, and 82.47 per cent are illiterate. This disease is known to most of the Santals of the target villages being 86.67 per cent; among them, 94.44 per cent, and 83.33 per cent are literate and illiterate respectively. In case of the Oraons, 84.04 per cent of the respondents have some knowledge of tuberculosis, while among them, 91.67 per cent and 81.43 per cent are literate

and illiterate respectively. It has been observed that 81.48 per cent of the tribals of the non-target villages have some knowledge of the disease (Table-16). About, 85.53 per cent and 79.90 per cent of the literate and illiterate tribals respectively have some knowledge of this disease. In case of the Santals, 81.82 per cent have some knowledge of the disease. Among them, 85.48 per cent and 80.38 per cent are literate and illiterate. In case of the Oraons, 80 per cent have some knowledge of the disease. This knowledge is found among 85.71 per cent literate and 77.78 percent illiterate Oraons of the non-target villages.

According to the opinion of the respondents of the study area tuberculosis is caused due to excessive smoking, alcohol drinking and heavy work. It is observed that most of the tribals neglect this disease. If the illness turns to an acute stage, they visit the Primary Health Centre or the clinic of the Tagore Society for Rural Development for allopathic treatment. The usual practice of the Primary Health Centre is to refer the case to the district hospital at Balurghat for necessary examination and X-ray. X-ray is done mostly from private practitioners. Poor tribals quite often discontinue the treatment, as it is expensive to get the treatment at a distance place and for getting X-rays. The Tagore Society for Rural Development sometimes provides financial support to the poor tribal patients.

Leprosy

Leprosy is very common among the tribals of the study area. This is one of the prevalent diseases, which has social stigma even today. Leprosy is considered as the most dangerous disease. This not only affects the body but also affects the social position of the patient. Tribals believe that leprosy can be transmitted from generation to generation. Most of them also believe that sinful actions usually results into leprosy. As this disease is also believed to be a contagious one, the infected person generally tries to suppress the fact. Table 15 shows that 69.16 per cent of the tribals of the target villages have some knowledge of leprosy. However, awareness regarding leprosy varies between literate and illiterate tribals being 73.33 per cent and 67.53 per cent respectively. In case of

the Santals, 70 per cent have some knowledge of the disease, among them, 75 per cent and 67.86 per cent are literate and illiterate respectively. In case of the Oraons, 68.09 per cent have some knowledge of the disease. However, 70.83 per cent and 67.14 per cent literate and illiterate Oraons respectively have some knowledge of the disease. Whereas table 16 shows that 68.52 per cent of the tribals of the non-target villages have some knowledge of leprosy. About 71.05 per cent and 67.53 per cent of the literate and illiterate tribals respectively have some knowledge of leprosy. In case of Santals of the non-target villages, 69.09 per cent have some knowledge of the disease. Among them, 70.97 per cent and 68.35 per cent are literate and illiterate. In case of Oraons of the non-target villages, 66 per cent have some knowledge of the disease, 71.43 per cent and 63.89 per cent literate and illiterate Oraons respectively have some knowledge of this disease leprosy. Though most of the tribals have knowledge of leprosy, awareness level of the tribals is very low. By interviewing the Medical Officer In-charge of Malancha Primary Health Centre, Health Staff of the Tagore Society for Rural Development, village medicine men, and quacks, it was revealed that the tribals of both the target and non-target villages are quite ignorant about the cause and characteristic of the disease. In most of the cases the disease remains uncared for years together.

Malaria

Malaria is another prevalent disease of the study area. According to the report of the Medical Officer in-charge of the Malancha Primary Health Centre and Health Staff of the Tagore Society for Rural Development, the main reasons for the reappearance of malaria are unhygienic condition, stagnant water areas in the locality that help to grow mosquitoes and lack of knowledge of the tribals about preventive care of the disease. Tribals have their own beliefs and generally if a large section of the villagers suffer from this disease, they desert the village instead of taking modern treatment. Table 15 shows that 55.14 per cent of the tribals of the target villages have some knowledge of malaria, among them, 61.67 per cent and 52.60 per cent of the literate and illiterate tribals respectively have some knowledge of this. In case of the Santals of the target villages, 55.83 per

cent have some knowledge of malaria, of which, 61.11 per cent and 53.57 per cent are literate and illiterate. Among the Oraons of the target villages, 54.26 per cent have some knowledge of the disease. The knowledge of this disease is found among 62.50 per cent of the literate Oraons and 51.43 per cent of the illiterate Oraons. Table 16 shows that 54.81 per cent of the tribals of the non-target villages have some knowledge of malaria; 60.53 per cent and 52.06 per cent of the literate and illiterate tribals of the non-target villages have some knowledge of malaria. While 55 per cent of the Santals of the non-target villages have some knowledge of malaria; 61.29 per cent and 52.53 per cent of the literate and illiterate Santals have some knowledge about this disease. In case of the Oraons, 54 per cent of the respondents in general have some knowledge of malaria, of them, 57.14 per cent are literate, and 50 per cent are illiterate.

The analysis of the tables 17 and 18 gives the knowledge of the tribal communities of both the target and non-target villages about the causes of malaria and preventive care of malaria. The knowledge and awareness level of the tribal communities in the target villages regarding this is better than their counterparts in the non-target villages. In general, 87.85 per cent of the respondents of the target villages are aware of the harmful effects of mosquito bites, among them, 93.33 per cent and 85.71 per cent literate and illiterate respondents respectively are aware of the harmful effect of mosquito bites. Among the Santals, 90 per cent are aware of the harmful effect of mosquito bites, of which, 94.44 per cent are literate, and 88.10 per cent are illiterate. In case of the Oraons, 85.11 per cent are aware of the harmful effect of mosquito bites, among them, 91.67 per cent and 82.86 per cent of the literate and illiterate Oraons respectively are aware of the harmful effect of mosquito bites. The same table explains that 76.17 per cent of the tribals of the target villages know that some illness is caused by mosquito bites, but 64.49 percent know the name of the disease. However, 80 per cent and 74.68 per cent of the literate and illiterate respondents respectively know that some illness is caused by mosquito bites. And 68.33 per cent and 62.99 per cent of the literate and illiterate respondents respectively know the name of the disease. In case of the Santals, 76.67 per cent know that some illness is caused by mosquito bites. While 80.56 per cent and 75

per cent of the literate and illiterate respondents know that some illness is caused by mosquito bites. However, 65 per cent of the Santals know the name of the disease. Though 69.44 per cent and 63.10 per cent of the literate and illiterate Santals respectively know the name of the disease. In case of the Oraons, 75.53 per cent know that some illness is caused by mosquito bites; of which, 79.17 per cent are literate, and 74.29 per cent are illiterate. It is reported that 63.83 per cent of them know the name of the disease; of which, 66.67 per cent, and 62.86 per cent literate and illiterate Oraons respectively know the name of the disease.

In regard to the knowledge to prevent mosquito bites or steps to prevent mosquito bites in general, 57.48 per cent tribals of the target villages know the steps to prevent mosquito bites and rest of the respondents have reported negatively, while 61.67 per cent literate respondents and 55.84 per cent illiterate respondents respectively know this. In case of the Santals, 65 per cent know the steps to prevent mosquito bites, among them, 69.44 per cent and 63.10 per cent are literate and illiterate. In case of the Oraons, 63.83 per cent know the steps to prevent mosquito bites, of which, 66.67 per cent, and 62.86 per cent literate and illiterate Oraons respectively know the steps to prevent mosquito bites. Regarding the knowledge of the breeding place, same Table reflects that in general, 57.48 per cent of the tribals of the target villages know the mosquito-breeding place. However, 61.67 per cent and 55.84 per cent of the literate and illiterate tribals respectively have this knowledge. In case of the Santals, 58.33 per cent know the mosquito-breeding place, among them, 63.89 per cent and 55.95 per cent are literate and illiterate Santals respectively. Among the Oraons, 56.38 per cent know the mosquito-breeding place; of which, 58.33 per cent, and 55.71 per cent of the literate and illiterate Oraons respectively know the mosquito-breeding place (see Table-17).

It is interesting to know the knowledge and awareness of the tribals of the non-target villages, which is just reverse to that in the target villages (see Table-18). Only 33.70 per cent are aware of the harmful effect of mosquito bites. However, 81.58 per cent and 14.95 per cent of the literate and illiterate tribals respectively are aware of this. Among the Santals, in general, 34.09 per cent are aware of it,

of them, 82.26 per cent are literate, and 15.19 per cent are illiterate. In case of the Oraons, 32 per cent have reported to have knowledge of the harmful effect of the mosquito bites; of which, 78.57 per cent, and only 13.89 per cent of the literate and illiterate Oraons respectively have knowledge of the harmful effect of mosquito bites. It is observed that 28.89 per cent of the tribals of the non-target villages have reported that illness is caused by mosquito bites; of which, 63.16 per cent literate tribals, and 15.46 per cent illiterate tribals have reported the same. In case of the Santals in general, 29.09 per cent of them know that illness is caused by mosquito bites; 62.90 per cent and 15.82 per cent literate and illiterate Santals respectively know this. If we consider the Oraons, it is reported that in general, 28 per cent know that illness is caused by mosquito bites, of them, 64.29 per cent, and 13.89 per cent are literate and illiterate.

It is observed that in general, 27.41 percent of the respondents of the non-target villages know the name of the disease caused by mosquito bites; 59.21 per cent literate respondents and only 14.95 per cent illiterate respondents know the exact name of the disease (Table-18). In case of the Santals, 28.18 percent of the respondents have reported to know the name of the disease; 59.68 per cent and 15.82 per cent literate and illiterate Santals respectively have reported positively. In case of the Oraons, only 24 per cent have reported positively, among them, 57.14 per cent are literate and 11.11 per cent are illiterate. In regard to the knowledge about the steps to prevent mosquito bites, same Table shows that only 2.22 per cent of the tribals of the non-target villages know the steps, while 7.89 per cent of the literate tribals and no illiterate tribals know the steps. Among the Santals, 2.27 per cent know the steps; all are literate (8.06 percent). In case of the Oraons, only 2 per cent of them know the steps; all literate (7.14 per cent). In regard to the knowledge of the mosquito breeding places, in general only 21.48 per cent tribals of the non-target villages know the mosquito breeding places; 59.21 per cent and 6.70 per cent are literate and illiterate respectively. In case of the Santals, 21.82 per cent have reported positively, among them, 59.68 per cent, and 6.96 per cent literate and illiterate Santals respectively have reported positively. Among the Oraons, 20 per cent have reported positively.

However, 57.14 per cent and 5.56 per cent literate and illiterate Oraons have reported positively (Table 18).

Diarrhoea

The Medical Officer In-charge of Malancha Primary Health Centre and the representatives of the Tagore Society for Rural Development have reported that diarrhoea comes twice in every year, during the rains and winters, which affect almost all the families. Children mostly below the age of five years are mostly affected by diarrhoea. Tribals collect their drinking water either from ring-well or from tube-well and put it in a dirty plate with high necks. The tribals also drink water stored in the ditches or field. Open-air defecation is common among them. As a result massive diarrhoea breaks out during rainy seasons every year. In the year 1991, diarrhoea epidemic took at least 60 lives (Annual Report of the Tagore Society for Rural Development; 1992,1993). The Tagore Society for Rural Development has been taken up a diarrhoea management programme since 1992 for the target villages. Home management of diarrhoea, distribution of Oral Re-hydration Solution packets, massive awareness programmes and one to one counseling by the trained health staff through home visit etc, are some of the activities taken up by the Tagore Society for Rural Development to control diarrhoea. Tables 15 and 16 also show the awareness of the tribals about the sign of dehydration and the knowledge regarding how to prepare re-hydration solution.

Symptoms of Diarrhoea:

Sinking of fontanel, loss of skin elasticity, reduced urine flow etc, are some of the signs of dehydration.

Sinking of fontanel

It is reported that the awareness of the tribals regarding the sign of dehydration is poor. Table 15 depicts that only 20.56 per cent of the tribals of the target villages

are aware that the sinking of fontanel is a sign of diarrhoea. However, 26.67 per cent and 18.18 per cent literate and illiterate tribals respectively are aware about this sign. In case of the Santals, 21.67 per cent are aware about this sign, while, 27.78 per cent, and 19.05 per cent of the literate and illiterate Santals respectively know this sign of diarrhoea. In regard to Oraon respondents, 19.15 per cent know this sign; 25 per cent and 17.145 per cent are literate and illiterate Oraons. In the non-target villages, 11.11 per cent respondents have reported to know that sinking of fontanel is a sign of diarrhoea; 17.11 percent are literate and 8.76 per cent are illiterate. In case of the Santals in general, 11.36 per cent are aware of the sign, while, 17.74 per cent literate Santals and 8.86 per cent illiterate Santals know this sign. In regard to the Oraons, only 10 per cent know that sinking of fontanel is a sign of dehydration, of which, 14.29 per cent and 8.33 per cent literate and illiterate Oraons know this sign (Table-16).

Loss of Skin Elasticity

In general, 24.77 per cent of the tribals of the target villages have reported to know this sign. However, 36.67 per cent of the literate tribals and 20.13 per cent of the illiterate tribals are aware of this sign of dehydration. Among the Santals, 26.67 per cent are aware of this sign. However, 38.89 per cent and 21.43 per cent of the literate and illiterate Santals respectively know the above sign. In case of the Oraons in general, 22.34 per cent of the respondents are aware of this sign, while 33.33 per cent of the literate and 18.57 per cent of the illiterate respectively know this sign of dehydration (see Table-15). In the non-target villages, 17.41 per cent of the respondents know the above sign; 22.37 per cent and 15.46 per cent of the literate and illiterate respondents respectively know the above sign (Table-16). It is reported that 18.18 per cent of the Santals are aware of this sign. Though 22.58 per cent and 16.46 per cent of the literate and illiterate Santals respectively have reported positively. In case of the Oraons, it is reported that 14 per cent know the sign. Though 21.42 per cent of the literate Oraons and 11.11 per cent of the illiterate Oraons know this sign.

Reduced Urine Flow

Reduced urine flow is a sign of dehydration and a very few tribals of the target and non-target villages are aware of this sign. In the target villages, 29.90 per cent of the tribals know this sign is a cause of diarrhoea, while, 46.67 per cent of the literate tribals and 23.38 per cent of the illiterate tribals know it. In case of the Santals, it is reported that 30.83 per cent in general, know the sign, and among them 47.22 per cent of the literate and 23.81 per cent of the illiterate Santals are aware of this sign. In case of the Oraons, 28.72 per cent of the respondents know this sign, while, 45.83 per cent literate Oraons and 22.86 per cent illiterate Oraons respectively know this sign of dehydration (see Table-15). In the non-target villages, 5.18 per cent of the tribals know this sign. However, 28.95 per cent of the literate tribals and 9.79 per cent of the illiterate tribals are aware of this sign. In case of the Santals, 15.91 per cent in general, are aware of the sign, while 29.03 per cent of the literate Santals and 10.76 per cent of the illiterate Santals know the sign. In case of the Oraons, only 12 per cent know this sign, but 28.57 per cent and 5.56 per cent literate and illiterate Oraons respectively have reported to know the above sign of dehydration (see Table 16).

Use of Oral Re-hydration Solution

Use of Oral Re-hydration Solution packets during diarrhoea is common among the tribals of the target villages. Most of the tribals of the target villages are also aware of the preparation of the re-hydration solution at home. In general, 42.06 per cent know how to prepare this solution, while 76.67 per cent of the literate and 23.33 per cent of the illiterate know this process. In case of the Santals, 43.33 per cent know the technique of preparation of the solution. Among them, 77.78 per cent literate and 28.57 per cent illiterate know this technique (Table-15). In the non-target villages, only 19.26 per cent of the tribals know this technique, though 40.79 per cent of the literate tribals and only 10.82 percent of the illiterate tribals know how to prepare the solution at home. In case of the Santals, 20.91 per cent know this technique, among them, 41.94 per cent literate and 12.66 per cent illiterate know the the preparation. Among the Oraons, only

18 per cent know the technique; among them, 35.71 per cent, and 11.11 per cent are literate and illiterate respectively (Table 16). As per the annual report of the Tagore Society for Rural Development the death toll of diarrhoea in every year is very much alarming. Most of the death occurs among the tribals. The awareness of diarrhoea among the tribals is very low. At the acute stage of the patient the tribals bring the patient to the hospital. We have observed some changes in practices among the tribals in the target villages. The literate tribals of both the target and non-target villages are aware of home management of diarrhoea. In most of the cases they try Oral Re-hydration Solution in case of diarrhoea, and if this is not available, they use the solution of sugar, salt and water in appropriate proportion. After that if patient is not cured, they take the patient to the Tagore Society for Rural Development, quack, and government hospital for treatment.

Skin Diseases

As per the annual report of the Tagore Society for Rural Development (Annual Report; 1994, 1995, 1996) many tribal adults of both sexes suffer from ringworm and most of the children have scabies. The lack of desire to take regular bath, the habit of using the same clothes at least for a week and not using soap for ablution of anus after defecation reflect the lack of knowledge and habit of the tribals of hygiene and cleanliness. Most of the tribals have no time to clean their surroundings. In case of skin disease, they apply the extract of *karanj* tree on the affected spot. Its bad smell prevents flies. Some times tribals, mostly in the target villages, visit the clinics of the Tagore Society for Rural Development for treatment of their children. In addition to the diseases discussed here, excessive bleeding of the women during the period, white-discharge, small pox, swelling of the body, back pain, miscarriage, prolapsed of the pregnant women, headache, bodyache, eyeache etc, are some of the other common diseases suffered by the tribals of the study area believed to be caused by the supernatural being.

Table 15
Some prevalent diseases and awareness about the oral re-hydration solution among the tribals of the target villages

| Tribal groups | Diseases | | | Symptoms of dehydration | | | Awareness about the oral re-hydration solution | | |
|---------------|------------------|----------------|----------------|-------------------------|-----------------------------|------------------------|--|----------------|----------------|
| | Tuberculosis (%) | Leprosy (%) | Malaria (%) | Sinking of fontanel (%) | Loss of skin elasticity (%) | Reduced urine flow (%) | Aware (%) | Not aware (%) | Total (%) |
| Santals | 104 (86.67) | 84 (70.00) | 67 (55.83) | 26 (21.67) | 32 (26.67) | 37 (30.83) | 52 (43.33) | 68 (56.67) | 120 (100) |
| Literate | 34 (94.44) | 27 (75.00) | 22 (61.11) | 10 (27.78) | 14 (38.89) | 17 (47.22) | 28 (77.78) | 8 (22.22) | 36 (30.00) |
| Illiterate | 70 (83.33) | 57 (67.86) | 45 (53.57) | 16 (19.05) | 18 (21.43) | 20 (23.81) | 24 (28.57) | 60 (71.43) | 84 (100) |
| Oraons | 79 (84.04) | 64 (68.09) | 51 (54.26) | 18 (19.15) | 21 (22.34) | 27 (28.72) | 38 (40.43) | 56 (59.57) | 94 (100) |
| Literate | 22 (91.67) | 17 (70.83) | 15 (62.50) | 6 (25.00) | 8 (33.33) | 11 (45.83) | 18 (28.57) | 6 (25.00) | 24 (25.53) |
| Illiterate | 57 (81.43) | 47 (67.14) | 36 (51.43) | 12 (17.14) | 13 (18.57) | 16 (22.86) | 20 (28.57) | 50 (71.43) | 70 (74.47) |
| Total | 183 (85.51) | 148 (69.16) | 118 (55.14) | 44 (20.56) | 53 (24.77) | 64 (29.91) | 90 (42.06) | 124 (57.94) | 214 (100) |
| Literate | 56 (93.33) | 44 (73.33) | 37 (61.67) | 16 (26.67) | 22 (36.67) | 28 (46.67) | 46 (76.67) | 14 (23.33) | 60 (28.04) |
| Illiterate | 127 (82.47) | 104 (67.53) | 81 (52.60) | 28 (18.18) | 31 (20.13) | 36 (23.38) | 44 (28.57) | 110 (71.43) | 154 (71.96) |

Table 16
Some prevalent diseases and awareness about the oral re-hydration solution among the tribals of the non-target villages

| Tribal groups | Diseases | | | Symptoms of dehydration | | | Awareness about the oral re-hydration solution | | |
|---------------|------------------|----------------|----------------|-------------------------|-----------------------------|------------------------|--|----------------|----------------|
| | Tuberculosis (%) | Leprosy (%) | Malaria (%) | Sinking of fontanel (%) | Loss of skin elasticity (%) | Reduced urine flow (%) | Aware (%) | Not aware (%) | Total (%) |
| Santals | 180 (81.82) | 152 (69.09) | 121 (55.00) | 25 (11.36) | 40 (18.18) | 35 (15.91) | 46 (20.91) | 174 (79.09) | 220 (100) |
| Literate | 53 (85.48) | 44 (70.97) | 38 (61.29) | 11 (17.74) | 14 (22.58) | 18 (29.03) | 26 (41.94) | 36 (58.06) | 62 (28.18) |
| Illiterate | 127 (80.38) | 108 (68.35) | 83 (52.53) | 14 (8.86) | 26 (16.46) | 17 (10.76) | 20 (12.66) | 138 (87.34) | 158 (71.82) |
| Oraons | 40 (80.00) | 33 (66.00) | 27 (54.00) | 5 (10.00) | 7 (14.00) | 6 (12.00) | 9 (18.00) | 41 (82.00) | 50 (100) |
| Literate | 12 (85.71) | 10 (71.43) | 8 (57.14) | 2 (14.29) | 3 (21.43) | 4 (28.57) | 5 (35.71) | 9 (64.29) | 14 (28.00) |
| Illiterate | 28 (77.78) | 23 (63.89) | 18 (50.00) | 3 (8.33) | 4 (11.11) | 2 (5.56) | 4 (11.11) | 32 (88.89) | 36 (72.00) |
| Total | 220 (81.48) | 185 (68.52) | 148 (54.81) | 30 (11.11) | 47 (17.41) | 41 (15.19) | 52 (19.26) | 218 (80.74) | 270 (100) |
| Literate | 65 (85.53) | 54 (71.05) | 46 (60.53) | 13 (17.11) | 17 (22.37) | 22 (28.95) | 31 (40.79) | 45 (59.21) | 76 (28.15) |
| Illiterate | 155 (79.90) | 131 (67.53) | 101 (52.06) | 17 (8.76) | 30 (15.46) | 19 (9.79) | 21 (10.82) | 173 (89.18) | 194 (71.85) |

Table 17

Awareness of the harmful effects of the mosquito bites, illness caused by the mosquito bites, name of the illness and steps to prevent mosquito bites etc of the target villages

| Tribal groups | Mosquito bites are harmful | | Illness | | Name of the illness | | Steps to prevent mosquito bites | | Breeding place | | Total |
|---------------|----------------------------|---------------|----------------|---------------|---------------------|----------------|---------------------------------|----------------|----------------|----------------|----------------|
| | Aware (%) | Not aware (%) | Aware (%) | Not aware (%) | Know (%) | Don't know (%) | Know (%) | Don't know (%) | Know (%) | Don't know (%) | |
| Santal | 108 (90.00) | 12 (10.00) | 92 (76.67) | 28 (23.33) | 78 (65) | 42 (35) | 70 (58.33) | 50 (41.67) | 83 (69.17) | 37 (30.83) | 120 (100) |
| Literate | 34 (94.44) | 2 (5.56) | 29 (80.56) | 7 (19.44) | 25 (69.44) | 11 (30.56) | 23 (63.89) | 13 (36.11) | 26 (72.22) | 10 (27.78) | 36 (30.00) |
| Illiterate | 74 (88.10) | 10 (11.90) | 63 (75.00) | 21 (25.00) | 53 (63.10) | 31 (36.90) | 47 (55.95) | 37 (44.05) | 57 (67.86) | 27 (32.14) | 84 (70.00) |
| Oraon | 80 (85.11) | 14 (14.89) | 71 (75.53) | 23 (24.47) | 60 (63.83) | 34 (36.17) | 53 (56.38) | 41 (43.62) | 53 (56.38) | 41 (43.62) | 94 (100) |
| Literate | 22 (91.67) | 2 (8.33) | 19 (79.17) | 5 (20.83) | 16 (66.67) | 8 (33.33) | 14 (58.33) | 10 (41.67) | 17 (70.83) | 7 (29.17) | 24 (25.53) |
| Illiterate | 58 (82.86) | 12 (17.14) | 52 (74.29) | 18 (25.71) | 44 (62.86) | 26 (37.14) | 39 (55.71) | 31 (44.29) | 36 (51.43) | 34 (48.47) | 70 (74.47) |
| Total | 188 (87.85) | 26 (12.15) | 163 (76.17) | 51 (23.83) | 138 (64.49) | 76 (35.51) | 123 (57.48) | 91 (42.52) | 136 (63.55) | 78 (36.45) | 214 (100) |
| Literate | 56 (93.33) | 4 (6.67) | 48 (80.00) | 12 (20.00) | 41 (68.33) | 19 (31.67) | 37 (61.67) | 23 (38.33) | 43 (71.67) | 17 (28.33) | 60 (28.04) |
| Illiterate | 132 (85.71) | 22 (14.29) | 115 (74.68) | 39 (25.32) | 97 (62.99) | 57 (37.01) | 86 (55.84) | 68 (44.16) | 93 (60.39) | 61 (39.39) | 154 (71.96) |

Table 18

Awareness of the harmful effects of the mosquito bites, illness caused by the mosquito bites, name of the illness and steps to prevent mosquito bites etc., of the non-target villages

| Tribal groups | Mosquito bites are harmful | | Illness | | Name of the illness | | Steps to prevent mosquito bites | | Breeding place | | Total |
|---------------|----------------------------|----------------|---------------|----------------|---------------------|----------------|---------------------------------|-----------------|----------------|----------------|----------------|
| | Aware (%) | Not aware (%) | Aware (%) | Not aware (%) | Know (%) | Don't know (%) | Know (%) | Don't know (%) | Know (%) | Don't know (%) | |
| Santal | 75 (34.09) | 145 (65.91) | 64 (29.09) | 156 (70.91) | 62 (28.18) | 158 (71.82) | 5 (2.27) | 215 (97.73) | 48 (21.82) | 172 (78.18) | 220 (100) |
| Literate | 51 (82.26) | 11 (17.74) | 39 (62.90) | 23 (37.10) | 37 (59.68) | 25 (40.32) | 5 (8.06) | 57 (91.94) | 37 (59.68) | 25 (40.32) | 62 (28.18) |
| Illiterate | 24 (15.19) | 134 (84.81) | 25 (15.82) | 133 (84.18) | 25 (15.82) | 133 (84.18) | 0 (100.00) | 158 (100.00) | 11 (6.96) | 147 (93.04) | 158 (71.82) |
| Oraon | 16 (32.00) | 34 (68.00) | 14 (28.00) | 36 (72.00) | 12 (24.00) | 38 (76.00) | 1 (2.00) | 49 (98.00) | 10 (20.00) | 40 (80.00) | 50 (100) |
| Literate | 11 (78.57) | 3 (21.43) | 9 (64.29) | 5 (35.71) | 8 (57.14) | 6 (42.86) | 1 (7.14) | 13 (92.86) | 8 (57.14) | 6 (42.86) | 14 (28.00) |
| Illiterate | 5 (13.89) | 31 (86.11) | 5 (13.89) | 31 (86.11) | 4 (11.11) | 32 (88.89) | 0 (100.00) | 36 (100.00) | 2 (5.56) | 34 (94.44) | 36 (72.00) |
| Total | 91 (33.70) | 179 (66.30) | 78 (28.89) | 192 (71.11) | 74 (27.41) | 196 (72.59) | 6 (2.22) | 264 (97.78) | 58 (21.48) | 212 (78.52) | 270 (100) |
| Literate | 62 (81.58) | 14 (18.42) | 48 (63.16) | 28 (36.84) | 45 (59.21) | 31 (40.79) | 6 (7.89) | 70 (92.11) | 45 (59.21) | 31 (40.79) | 76 (28.15) |
| Illiterate | 29 (14.95) | 165 (85.05) | 30 (15.46) | 164 (84.54) | 29 (14.95) | 165 (85.05) | 0 (0) | 194 (100.00) | 13 (6.70) | 181 (93.30) | 194 (71.85) |

ENVIRONMENTAL SANITATION AND PERSONAL HYGIENE

We shall discuss here housing, sanitation, and personal hygiene of the tribals in some details from a comparative perspective. These are integral parts of the cultural and health behavior of a community.

Housing and its conditions

Almost all houses of the tribals are in similar condition with little differences. The houses are *kaccha* with one or two rooms without having any boundaries. In general almost 80 per cent of the houses have two rooms whereas rest of the houses have only one room. In most of the cases windows are not found. We also have seen a few double stored *kaccha* houses. The houses of the Santals are clean and well decorated than that of the Oraon houses. It is reported that 20 per cent of the houses of the target villages have tin roofs and the roofs of the rest of the houses are made by straw. It is interesting to note that, for fear of lifting cattle by thieves, 80 per cent of the families in the target villages use their living room to keep cattle at night. In some of the cases, we also have observed that those who have two storied houses, domestic animals are kept on the ground floor and in a few cases; cattles are kept under a separate shade. The scenario in the non-target villages is almost same. All the houses are *kaccha* ones with one or two rooms only. Most of the *kaccha* houses have no windows and with out any boundary wall. The roofs of most of the houses are made by straw. It has observed that the tribals in the non-target villages keep cattle in their living room in the night, though a few tribal uses separate shade for the domestic animals.

Sanitation

A community's idea of sanitation and hygiene determines to a large extent its health status. The condition of sanitation among the tribals in both the target and non-target villages is low. It is observed that sanitation condition of the tribals in the target villages is better than that in the non-target villages (Tables 19 and 20).

Similarly, the knowledge of sanitation among the literate tribals of both the areas are slightly better. The drainage system of both the target and non-target villages are almost missing. Sullage water allowed to pass out of the houses through narrow drains cut in the ground. The drains are not properly cut so water gets accumulated creating a breeding ground for mosquitoes and germs. Due to the poor drainage system rainwater fails to pass submerging the lanes in the rainy seasons. Table 19 shows that there are only 12 Santal houses of the target villages (10 percent of the total Santal respondents) have reported to have latrine facility; 5 belong to the literate Santals (13.89 per cent). These latrines are under utilised. However, there are no latrines of the Santals of the non-target villages, and the Oraons do not have latrines in both the target and non-target villages.

The concept and treatment of worm infection

The tribals of both the target and non-target villages defecate in the fields and bushes. As a result most of the tribal children suffer from worm infection. The awareness of the consequences of the open-air defecation of the respondents of the target villages is better than that of the non-target villages (Table 19). This might be due to the awareness programmes of the Tagore Society for Rural development regarding the sanitation and the treatment of the worm infected children. In the target villages, in general, 58.88 per cent tribals have reported to be aware that open-air defecation is one of the causes of worm infection; among them, 80 per cent are literate and 50.65 per cent are illiterate. In case of the Santals of the target villages, 63.33 per cent have reported positively, but 80.56 per cent and 55.95 per cent of the literate and illiterate respondents respectively have reported positively. However, we have found that 53.19 per cent of the Oraons have reported positively and 79.17 per cent and 44.29 per cent of the literate and illiterate Oraons respectively have reported positively.

In the non-target villages, the awareness of the tribals is poor. It is reported that 24.81 per cent of the respondents have reported that they are aware of the consequences of the open-air defecation, but 55.26 per cent and 11.34 per cent literate and illiterate respondents respectively have reported positively. In case of the Santals, 25 per cent have reported positively, but 54.84 per cent and only

13.29 per cent literate and illiterate respondents respectively have reported positively. Whereas 24 per cent of the Oraons know the consequences of the open-air defecation, but 57.14 per cent and 11.11 per cent literate and illiterate respondents respectively have reported positively (Table 20).

Worm infection and the use of de-worming medicine

The tables 19 and 20 show that use of modern de-worming medicine varies from tribe to tribe. The de-worming of the children below 14 years of age is an important child health programme run by the Tagore Society for Rural Development. As a part of this programme, the Society provides de-worming medicine twice in a year to all the children below the age of 14 years. It is observed that 41.12 per cent of the tribals of the target villages are seen to use modern medicine for de-worming, but 13.08 per cent tribals use traditional medicine and the rest use no medicine. It is interesting to note that 80 per cent and 25.97 per cent literate and illiterate tribals respectively use modern de-worming medicine. It is interesting that no one of the literate tribals depend on traditional medicine, but 18.18 per cent illiterate tribals still depend on traditional medicine for de-worming of their children.

It is reported that 44.16 per cent of the Santals in target villages use modern medicine, of which, 13.33 percent use traditional medicine and rest of them use no medicine for the de-worming of their children. It is interesting to note that 80.56 per cent and 28.57 per cent of the literate and illiterate Santals use modern medicine and 19.05 per cent illiterate tribals still depend on traditional medicine and no one of the literate tribals depend on traditional medicine. In case of the Oraons, 37.25 per cent depend on modern medicine, 12.77 per cent depend on traditional medicine and the rest use no medicine. However, 79.17 per cent and 22.86 per cent of the literate and illiterate Oraons depend on modern medicine. About 17.14 percent of the illiterate Oraons use traditional medicine and no one of the literate Oraons use traditional medicine. Only few families of the non-target villages are found to use de-worming medicine. About 14.44 per cent of the tribals use modern medicine, but 17.08 per cent use ^{ti}traditional medicine. However,

23.68 percent and 10.82 per cent of the literate and illiterate tribals respectively use modern medicine, but 18.42 per cent and 16.49 per cent of the literate and illiterate respondents have reported to still use traditional medicine (see Table 19 and 20).

Tribe wise comparison shows that 17.73 per cent Santals have reported to depend on modern medicine and 16.82 per cent depend on traditional medicine, but rest of them have reported to use no medicine for de-worming (Table-19). It is reported that 29.03 per cent and 13.29 per cent of the literate and illiterate Santals use modern medicine, while 17.74 per cent of the literate Santals use traditional medicine, whereas, 16.46 per cent of the illiterate Santals use traditional medicine for de-worming. The rest of the literate and illiterate Santals have not been using any de-worming medicine. In case of the Oraons, 18 per cent still depend on the traditional medicine and rest of them have not been using any de-worming medicine. While 21.43 percent literate Oraons use traditional medicine and 16.67 per cent illiterate Oraons use traditional de-worming medicine.

It is interesting to note that those who are aware of the worm infection in the non-target villages have reported to be aware that worm infection is dangerous to health. In general, 99.21 per cent respondents of the target villages have reported that worm infection is dangerous to health; of them, 97.92 per cent literate and all the illiterate have reported to be aware of worm infection and its negative impact. Tribe wise comparison shows that 98.68 per cent of the Santals have reported to be aware of worm infection as dangerous to health, but all the Oraons those who are reported to be aware of worm infection also know that it is dangerous to health. It is interesting to note that all the illiterate Santals and 96.55 per cent of the literate Santals respectively have reported positively (Table-19). Whereas, all the respondents of the non-target villages who have reported the consequences of open-air defecation is worm infection know that worm infection is dangerous to health.

Table 19
Environmental Sanitation and Personal Hygiene of the target villages

| Tribal Groups | Deification | | Consequences of the open air deification | | | | Use of de-worming medicine | | Total |
|---------------|----------------|--------------------|--|--------------------------|-----------------|----------------|----------------------------|---------------|----------------|
| | Open air (%) | Use of latrine (%) | Worm infection (%) | *Dangerous to health (%) | *Don't know (%) | Don't know (%) | Traditional (%) | Modern (%) | Total (%) |
| Santal | 108 (90.00) | 12 (10.00) | 76 (63.33) | 75 (98.68) | 01 (1.32) | 44 (36.67) | 16 (13.33) | 53 (44.17) | 120 (100) |
| Literate | 31 (86.11) | 05 (13.89) | 29 (80.56) | 28 (96.55) | 01 (3.45) | 07 (19.44) | 0 (0) | 29 (80.56) | 36 (30.00) |
| Illiterate | 77 (91.67) | 07 (8.33) | 47 (55.95) | 47 (100.00) | 0 (0) | 37 (44.05) | 16 (19.05) | 24 (28.57) | 84 (70.00) |
| Oraon | 94 (100.00) | 0 (0) | 50 (53.19) | 50 (100.00) | 0 (0) | 44 (46.81) | 12 (12.77) | 35 (37.23) | 94 (100) |
| Literate | 24 (100.00) | 0 (0) | 19 (79.17) | 19 (100.00) | 0 (0) | 05 (20.83) | 0 (0) | 19 (79.17) | 24 (25.53) |
| Illiterate | 70 (100) | 0 (0) | 31 (44.29) | 31 (100) | 0 (0) | 39 (55.71) | 12 (17.14) | 19 (27.14) | 70 (74.47) |
| Total | 202 (94.39) | 12 (5.61) | 126 (58.88) | 125 (99.21) | 01 (0.79) | 88 (41.12) | 28 (13.08) | 88 (41.12) | 214 (100) |
| Literate | 55 (91.67) | 05 (8.33) | 48 (80.00) | 47 (97.92) | 01 (2.08) | 12 (20.00) | 0 (0) | 48 (80.00) | 60 (28.04) |
| Illiterate | 147 (95.45) | 07 (4.55) | 78 (50.65) | 78 (100) | 0 (0) | 76 (49.35) | 28 (18.18) | 40 (25.97) | 154 (71.96) |

N=* Number of respondents out of the respondents who know that the consequences of the open-air deification is worm infection.

Table 20
Environmental Sanitation and Personal Hygiene of the non-target villages

| Tribal Groups | Deification | | Consequences of the open air deification | | | | Use of de-worming medicine | | Total |
|---------------|----------------|--------------------|--|--------------------------|-----------------|----------------|----------------------------|---------------|----------------|
| | Open air (%) | Use of latrine (%) | Worm infection (%) | *Dangerous to health (%) | *Don't know (%) | Don't know (%) | Traditional (%) | Modern (%) | Total (%) |
| Santal | 217 (98.64) | 3 (1.36) | 55 (25.00) | 55 (100.00) | 0 (0) | 165 (75.00) | 37 (16.82) | 39 (17.73) | 220 (100) |
| Literate | 61 (98.39) | 01 (1.61) | 34 (54.84) | 34 (100) | 0 (0) | 28 (45.16) | 11 (17.74) | 18 (29.03) | 62 (28.18) |
| Illiterate | 156 (98.73) | 02 (1.27) | 21 (13.29) | 21 (100) | 0 (0) | 137 (86.71) | 26 (16.46) | 21 (13.29) | 158 (71.82) |
| Oraon | 50 (100) | 0 (0) | 12 (24.00) | 12 (100) | 0 (0) | 38 (76.00) | 09 (18.00) | 0 (0) | 50 (100) |
| Literate | 14 (100) | 0 (0) | 08 (57.14) | 08 (100) | 0 (0) | 06 (42.86) | 03 (21.43) | 0 (0) | 14 (28.00) |
| Illiterate | 36 (100) | 0 (0) | 04 (11.11) | 04 (100) | 0 (0) | 35 (97.22) | 06 (16.67) | 0 (0) | 36 (72) |
| Total | 267 (98.89) | 03 (1.11) | 67 (24.81) | 67 (100) | 0 (0) | 203 (75.19) | 46 (17.08) | 39 (14.44) | 270 (100) |
| Literate | 75 (98.68) | 01 (1.32) | 42 (55.26) | 42 (100.00) | 0 (0) | 34 (44.74) | 14 (18.42) | 18 (23.68) | 76 (28.15) |
| Illiterate | 192 (98.97) | 02 (1.03) | 22 (11.34) | 22 (100) | 0 (0) | 172 (88.66) | 32 (16.49) | 21 (10.82) | 194 (71.85) |

N=* Number of respondents out of the respondents who know that the consequences of the open-air deification is worm infection.

Drinking Water

The provision of safe drinking water is one of the important components of water and sanitation programme of the Society. The analysis of the tables 21 and 22 reveals interesting picture regarding the source of drinking water of the target and non-target villages. The sources of drinking water of both the target and non-target villages are mainly tube wells and ring wells. It is observed that the majority of the tribals of the non-target villages draw drinking water from ring well as they do not have any tube well facilities nearby and the main source of drinking water of the tribals of the target villages is tube well.

In the target villages, 66.36 per cent of the tribals depend on tube well for drinking water, but as many as 90 per cent literate respondents draw drinking water from tube well and 57.14 per cent illiterate respondents draw drinking water from tube well. The rest depend on ring well for drinking water. However, only 10.74 per cent tribals of the non-target villages draw drinking water from tube well; of which, 15.79 per cent are literate and 8.76 per cent are illiterate. Among the Santals of the target villages, 76.67 per cent draw drinking water from tube well and the rest depend on ring well for drinking water; 91.67 per cent literate and 70.24 per cent illiterate draw drinking water from tube well. Whereas, only 10.45 per cent Santals of the non-target villages draw drinking water from tube well and rest of them depend on ring well. It is reported that 14.52 per cent literate respondents and 8.86 per cent of the illiterate respondents have reported to draw drinking water from tube well and others draw from ring well. Among the Oraons, 53.19 per cent draw drinking water from tube well and the rest draw from ring well. It is observed that as many as 87.50 per cent and 41.43 per cent literate and illiterate respondents draw drinking water from tube well and others draw from ring well. However, only 12 percent respondents of the non-target villages have reported to draw drinking water from tube well and the rest depend on ring well. It is observed that 21.43 per cent literate respondents and 8.33 per cent illiterate respondents draw drinking water from tube well and others draw from ring well (see Table-21 and 22).

It is commonly believed that the water from the tube well is safe, but the health staff of the Tagore Society for Rural Development shows concern for boiling of drinking water. There is possibility of contamination of the tube well water. In most of the cases, first layer water is being tapped for sinking of tube well. There is no deep tube well. All the ring wells are open and some times washing of clothes and bathing are done near the tube well and ring well. Though the common places of bathing and washing of clothes are ponds. The purification of water by at least boiling before drinking is not the practice of any of the tribal families. Most of the tribals of the non-target villages do not have any concept of safe drinking water. According to them ring well water is tastier than that of the tube well water. We may cite here the concept of Khara, an old tribal of Sondapukur village. He thinks there is no harm to drink the water from *Khari* (Canal) and he views this as safe water. In their young age every one used to drink water from the *Khari* or pond only and nothing happened to them. He has narrated, "Till now I prefer to drink water from *Khari*. Now people are taking water from the heart of the earth and *Dharti-mata* will not forgive you". He has viewed that the water from the tube well and ring well is the crying of our *Dharti-ma*.

Personal Hygiene

Now we shall analyse some aspects of personal hygiene of the tribals of both the target and non-target villages. Though it is commonly believed that the tribals do not bother about personal hygiene. The tribe wise analysis of personal hygiene of some of the aspects like boiling of milk every time for the baby, washing hand before feeding the baby, washing hand before and after taking the food, bathing baby, using soap while taking bath, using detergent for washing of clothes etc, reveal an interesting picture (Table 23 and 24). Tribals usually boil milk only once. This might be due to the shortage of the fuel wood. Even today tribals in both the target and non-target villages, for fuel wood mainly depend on forest.

Table 21
Sources of the drinking water and hygienic method adopted for the drinking water of the target villages

| Tribal groups | Tube well (%) | Ring well (%) | Pond (%) | Boil drinking Water (%) | Do not boil drinking water (%) | Total (%) |
|---------------|----------------|---------------|----------|-------------------------|--------------------------------|----------------|
| Santal | 92 (76.67) | 28 (23.33) | 0 (0) | 0 (0) | 120 (100) | 120 (100) |
| Literate | 33 (91.67) | 03 (8.33) | 0 (0) | 0 (0) | 36 (100) | 36 (30.00) |
| Illiterate | 59 (70.24) | 25 (29.76) | 0 (0) | 0 (0) | 84 (100) | 84 (70.00) |
| Oraon | 50 (53.19) | 44 (46.81) | 0 (0) | 0 (0) | 94 (100) | 94 (100) |
| Literate | 21 (87.50) | 03 (12.50) | 0 (0) | 0 (0) | 24 (100) | 24 (25.53) |
| Illiterate | 29 (41.43) | 41 (58.57) | 0 (0) | 0 (0) | 70 (100) | 70 (74.47) |
| Total | 142 (66.36) | 72 (33.64) | 0 (0) | 0 (0) | 214 (100) | 214 (100) |
| Literate | 54 (90.00) | 06 (10.00) | 0 (0) | 0 (0) | 60 (100) | 60 (28.04) |
| Illiterate | 88 (57.14) | 66 (42.86) | 0 (0) | 0 (0) | 154 (100) | 154 (71.96) |

Table 22
Sources of the drinking water and hygienic method adopted for the drinking water of the non-target villages

| Tribal groups | Tube well (%) | Ring well (%) | Pond (%) | Boil drinking Water (%) | Do not boil drinking water (%) | Total (%) |
|---------------|---------------|----------------|----------|-------------------------|--------------------------------|----------------|
| Santal | 23 (10.45) | 197 (89.55) | 0 (0) | 0 (0) | 220 (100) | 220 (100) |
| Literate | 09 (14.52) | 53 (985.48) | 0 (0) | 0 (0) | 62 (100) | 62 (28.18) |
| Illiterate | 14 (8.86) | 144 (91.14) | 0 (0) | 0 (0) | 158 (100) | 158 (71.82) |
| Oraon | 06 (12.00) | 44 (88.00) | 0 (0) | 0 (0) | 50 (100) | 50 (100) |
| Literate | 03 (21.43) | 11 (78.57) | 0 (0) | 0 (0) | 14 (100) | 14 (28.00) |
| Illiterate | 03 (8.33) | 33 (91.67) | 0 (0) | 0 (0) | 36 (100) | 36 (72.00) |
| Total | 29 (10.74) | 241 (89.26) | 0 (0) | 0 (0) | 270 (100) | 270 (100) |
| Literate | 12 (15.79) | 64 (84.21) | 0 (0) | 0 (0) | 76 (100) | 76 (28.15) |
| Illiterate | 17 (8.76) | 177 (91.24) | 0 (0) | 0 (0) | 194 (100) | 194 (71.85) |

In the target villages (Table-23), 77.57 per cent of the tribals are reported to wash their hands before feeding their baby. It constitutes 80 per cent literate and 74.68 per cent illiterate. Majority of the tribals (90.19 per cent) wash their hands before and after taking food. It is reported that 93.33 per cent literate and 88.96 per cent illiterate tribals have reported positively regarding washing of hands before and after taking food. It is reported that 46.26 per cent of the tribals give bath to their baby daily, while 61.67 per cent and 40.26 per cent of the literate and illiterate tribals respectively have reported positively regarding bathing of their baby. Regarding daily bath, majority of the tribals (95.79 per cent) have reported positively. It is reported that 98.33 per cent of the literate tribals and 94.81 per cent of the illiterate tribals take their bath daily. Regarding the using of soap while taking of bath, in general, 79.44 per cent of the tribals have reported positively, however 81.67 per cent and 78.57 per cent literate and illiterate tribals respectively have reported positively. It is observed that 55.61 per cent of the tribals use detergent for washing the clothes of their baby, of them, 81.67 per cent are literate, and 44.81 per cent are illiterate. Majority of the tribals (more than 97 per cent) wash their face and clean their teeth daily. It is reported that all the literate respondents and more than 96 per cent illiterate respondents wash their face and clean their teeth daily. The majority of the tribals usually use twig to clean their teeth, while toothbrush, cream or tooth powder are also being used by some of the tribals. Washing of hands after latrine is a common practice of the tribals but the use of soap is very rare. Wearing of shoes seems to be not very popular, as a few tribals have reported to wear shoes.

In the non-target villages (Table-24), 66.22 per cent wash their hands before feeding their baby, while 72.37 per cent and 58.25 per cent literate and illiterate respondents respectively have reported positively. Majority of the respondents (91.85 per cent) use to wash their hands before and after taking food. It is reported that 94.74 per cent literate and 90.72 per cent illiterate respondents respectively have reported positively regarding washing of hands before and after taking food. It is reported that most of the tribals here are not interested in giving bath to their baby daily. Only 40.37 per cent of the respondents give bath to their baby daily, while 55.26 per cent and 38.66 per cent of the literate and

illiterate respondents respectively have reported positively. Regarding daily bath, all the respondents have reported to take bath daily. Regarding the using of soap while taking bath, in general, 47.78 per cent of the respondents have reported positively, however 64.47 per cent and 41.24 per cent literate and illiterate respondents respectively have reported positively. The use of the detergent for washing of the clothes is also not very common. It is reported that 28.52 per cent of the respondents use detergent for washing the clothes of their baby, while 44.74 per cent literate respondents and 22.16 per cent illiterate respondents use detergent for the washing of their baby's clothes. The remaining respondents use traditionally prepared alkaline for washing of the clothes. This is mainly prepared from the banana tree. They fire the leaves and other parts of the plant and use the ash as alkaline and boil the clothes in water using the ash. Majority of the respondents wash their face and clean their teeth daily. Most of them have reported to use twig for cleaning teeth though it is observed that some of the respondents have reported to use modern tooth powder now-a-days. Washing of hands after latrine is also a common practice of the respondents but the use of soap is very rare. Wearing of shoes does not seem to be very popular at all and a few respondents are found wearing shoes.

Tribe wise analysis of the target villages reflects that majority of the Santals (78.33 percent) have reported to wash their hands before feeding their baby; 86.11 percent are literate and 75 per cent are illiterate (Table-23). Majority of them (92.50 per cent) use to wash their hands before and after taking food. It is reported that 94.74 per cent literate and 90.72 per cent illiterate Santals respectively have reported positively regarding washing of hands before and after taking food. It is reported that 46.67 per cent of the Santal respondents give bath to their baby daily, of which, 61.11 per cent are literate and 40.48 per cent are illiterate. All the Santals taking bath daily and majority of them (80 per cent) use soap while taking of bath, while 83.33 per cent and 78.57 per cent literate and illiterate Santals respectively have reported positively. It is observed that 51.67 per cent of the Santal respondents use detergent for washing the clothes of their baby, while majority of the literate Santals (86.11 per cent) and only 36.90 per cent illiterate Santals use detergent for the washing of their baby's clothes.

Majority of the Santals (more than 95 per cent) wash their face and clean their teeth daily. It is reported that all literate Santals and more than 94 percent of the illiterate Santals wash their face and clean their teeth daily. Washing of hands after latrine is a common practice of the Santals but the use of soap is not popular. Wearing of shoes seems to be not very popular, as a few tribals have reported to wear shoes.

In case of Oraons (Table-23), 76.60 percent wash hands before feeding their baby; 83.33 per cent and 74.29 per cent are literate and illiterate respectively. Majority of the Oraons (87.23 per cent) wash their hands before and after taking food, of which, 91.67 per cent are literate and 85.71 per cent are illiterate. It is observed that 45.74 per cent Oraon respondents give bath to their baby daily, while 62.50 per cent and 40 per cent literate and illiterate respondents respectively have reported positively. It is reported that 90.42 per cent respondents take bath daily, its constitute 95.83 per cent literate respondents and 88.57 per cent illiterate respondents and majority of the respondents (78.72 per cent) use soap while taking of bath, of them, 79.17 per cent and 78.57 per cent are literate and illiterate respectively. It is observed that 60.64 per cent Oraon respondents use detergent for washing the clothes of their baby, of them, 79.17 per cent are literate and and 54.29 per cent are illiterate. Majority of the Oraons (almost 95 per cent) wash their face and clean their teeth daily. It is reported that all the literate Oraons and more than 92 percent illiterate Oraons wash their face and clean their teeth daily. Washing of hands after latrine is a common practice of the Oraons but the use of soap is limited to a very few cases. Wearing of shoes does not seem to be very popular and a few tribals have reported to wear shoes.

In the non-target villages (Table-24), among the Santals, 63.18 percent wash their hands before feeding their baby, of them, 72.58 percent are literate and 59.49 per cent are illiterate. It is interesting to note that majority of them (92.73 per cent) wash their hands before and after taking food, of which, 95.16 per cent are literate, and 91.77 per cent are illiterate. It is reported that 41.82 per cent give bath to their baby daily, of which, 58.06 per cent are literate and 39.24 per cent

are illiterate. It is observed that all the Santals take bath daily and 48.18 per cent use soap while taking of bath, of which, 64.52 per cent are literate and 41.77 per cent are illiterate. It is observed that only 30 per cent Santal respondents use detergent for washing the clothes of their baby, while 48.39 per cent and 22.78 per cent literate and illiterate respectively use detergent for the washing of their baby's clothes. Majority of the Santals (90 per cent) wash their face and clean their teeth daily, of them, 96.77 per cent are literate and more than 87 per cent are illiterate. Washing of hands after latrine is a common practice of the Santals but the use of soap is not popular. Wearing of shoes does not seem to be very popular and a few tribals have reported to wear shoes.

In case of the Oraons (see Table-24), 58 per cent wash their hands before feeding their baby, of them, 71.43 per cent are literate and 52.78 per cent are illiterate. Majority of them (88 per cent) wash their hands before and after taking food. It is reported that 92.86 per cent literate and 86.11 per cent illiterate respondents respectively have reported positively regarding washing of hands before and after taking food. It is observed that 34 per cent give bath to their baby daily, while 42.86 per cent are literate and 36.11 per cent are illiterate. It is reported that all the Oraons take bath daily. However, 46 percent use soap while taking of bath, of which, 64.29 per cent are literate and 38.89 per cent are illiterate. It is reported that 22 per cent use detergent for washing the clothes of their baby, of them, 28.57 per cent literate and 19.44 per cent illiterate Oraons use detergent for the washing of their baby's clothes. Majority of the Oraons (88 per cent) wash their face and clean their teeth daily, of which, 92.86 per cent literate and more than 86 per cent illiterate Oraons wash their face and clean their teeth daily. Washing of hands after latrine is a common practice of the Oraons but the use of soap is limited to a very few cases. Wearing of shoes does not seem to be very popular and a few tribals have reported to wear shoes.

Table 23
Hygienic method adopted by the respondents of the target villages

| Tribal groups | Boil milk every time the baby is fed (%) | Wash hand before feeding baby (%) | Wash hand before and after taking food (%) | Bath baby daily (%) | Bath daily (%) | Use soap while taking bath (%) | Wash baby's cloth with soap (%) | Wash face and clean teeth daily (%) | Washing of hand after latrine (%) | Total (%) |
|---------------|--|-----------------------------------|--|---------------------|----------------|--------------------------------|---------------------------------|-------------------------------------|-----------------------------------|---------------|
| Santal | 0 (0) | 94 (78.33) | 111 (92.50) | 56 (46.67) | 120 (100) | 96 (80.00) | 62 (51.67) | 115 (95.83) | 120 (100) | 120 (100) |
| Literate | 0 (0) | 31 (86.11) | 34 (94.44) | 22 (61.11) | 36 (100.00) | 30 (83.33) | 31 (86.11) | 36 (100.00) | 36 (100.00) | 36 (30.00) |
| Illiterate | 0 (0) | 63 (75.00) | 77 (91.67) | 34 (40.48) | 84 (100.00) | 66 (78.57) | 31 (36.90) | 79 (94.05) | 84 (100) | 84 (70.00) |
| Oraon | 0 (0) | 72 (76.60) | 82 (87.23) | 43 (45.74) | 85 (90.43) | 74 (78.72) | 57 (60.64) | 89 (94.68) | 94 (100) | 94 (100) |
| Literate | 0 (0) | 20 (83.33) | 22 (91.67) | 15 (62.50) | 23 (95.83) | 19 (79.17) | 19 (79.17) | 24 (100.00) | 24 (100.00) | 24 (25.53) |
| Illiterate | 0 (0) | 52 (74.29) | 60 (85.71) | 28 (40.00) | 62 (88.57) | 55 (78.57) | 38 (54.29) | 65 (92.86) | 70 (100) | 70 (74.47) |
| Total | 0 (0) | 166 (77.57) | 193 (90.19) | 99 (46.26) | 205 (95.79) | 170 (79.44) | 119 (55.61) | 208 (97.20) | 214 (100) | 214 (100) |
| Literate | 0 (0) | 51 (85.00) | 56 (93.33) | 37 (61.67) | 59 (98.33) | 49 (81.67) | 50 (83.33) | 60 (100) | 60 (100) | 60 (28.04) |
| Illiterate | 0 (0) | 115 (74.68) | 137 (88.96) | 62 (40.26) | 146 (94.81) | 121 (78.57) | 69 (44.81) | 148 (96.10) | 154 (100.00) | 154 (100.) |

Table 24
Hygienic method adopted by the respondents of the non-target villages

| Tribal groups | Boil milk every time the baby is fed (%) | Wash hand before feeding baby (%) | Wash hand before and after taking food (%) | Bath baby daily (%) | Bath daily (%) | Use soap while taking bath (%) | Wash baby's cloth with soap (%) | Wash face and clean teeth daily (%) | Washing of hand after latrine (%) | Total (%) |
|---------------|--|-----------------------------------|--|---------------------|----------------|--------------------------------|---------------------------------|-------------------------------------|-----------------------------------|-----------------|
| Santal | 0 (0) | 139 (63.18) | 204 (92.73) | 92 (41.82) | 220 (100) | 106 (48.18) | 66 (30.00) | 198 (90.00) | 220 (100) | 220 (100) |
| Literate | 0 (0) | 45 (72.58) | 59 (95.16) | 36 (58.06) | 62 (100) | 40 (64.52) | 30 (48.39) | 60 (96.77) | 62 (100) | 62 (28.18) |
| Illiterate | 0 (0) | 94 (59.49) | 145 (91.77) | 62 (39.24) | 158 (100) | 66 (41.77) | 36 (22.78) | 138 (87.34) | 158 (100) | 158 (100) |
| Oraon | 0 (0) | 29 (58.00) | 44 (88.00) | 17 (34.00) | 50 (100) | 23 (46.00) | 11 (22.00) | 44 (88.00) | 50 (100) | 50 (100) |
| Literate | 0 (0) | 10 (71.43) | 13 (92.86) | 06 (42.86) | 14 (100) | 09 (64.29) | 04 (28.27) | 13 (92.86) | 14 (100.00) | 14 (100.00) |
| Illiterate | 0 (0) | 19 (52.78) | 31 (86.11) | 13 (36.11) | 36 (100) | 14 (38.89) | 07 (19.44) | 31 (86.11) | 36 (100) | 36 (100) |
| Total | 0 (0) | 168 (62.22) | 248 (91.85) | 109 (40.37) | 270 (100) | 129 (47.78) | 77 (28.52) | 242 (89.63) | 270 (100.00) | 270 (100.00) |
| Literate | 0 (0) | 55 (72.37) | 72 (94.74) | 42 (55.26) | 76 (100) | 49 (64.47) | 34 (44.74) | 73 (96.05) | 76 (100) | 76 (28.15) |
| Illiterate | 0 (0) | 113 (58.25) | 176 (90.72) | 75 (38.66) | 194 (100) | 80 (41.24) | 43 (22.16) | 169 (87.11) | 194 (100) | 194 (71.85) |

FOODS AND INTOXICATION

Food and intoxication have much to do with disease. A community's food habit and intoxication determine to a large extent the prevalence of diseases in that community. Food habits have a direct or indirect bearing on the disease causation. We will separately deal with food and intoxication here.

Foods

All the activities of the tribal societies spin around the problems of seeking food. Many ecological factors and environmental conditions influence the food getting activities of the tribals. The tribals are living mainly on the natural food of forest produce including animals, birds, insects etc. It is often said that the diet of the tribals is insufficient in quantity and poor in quality. On the other hand Roy Barman (1986, p95-96) has illustrated a review article of Sengupta and brought out a number of interesting dimensions about the nutrition of the tribal food. From the deities of the different aborigines he suggests that unsophisticated dieters of those tribes who could make self-selection were almost complete in every respect, namely, calories, essential protein, fat, mineral elements and vitamins. Either they take plenty of meat, bird, egg, or fish or they take plenty of curdled milk and pulses, which supply essential amino acids and vitamins. They take plenty of green vegetables that meet their requirements of calcium, iron, mineral elements as well as carotene (precursor of vitamin A) and other vitamins. They take enough cereals or millets that supplies calories and thiamine (Vitamin B1). They take fruits whenever available and honey for vitality and energy. They take many vegetables and tubers, wild or cultivated, to enrich their diets. Lastly, the home brewed alcoholic beverages reduce their nutritional deficiencies to a large extent. The degenerated lay and weak tribes eat less nutritious diets due to their injudicious choice of foods. They do not take honey; rarely take vegetables and green leaves. They depend mainly on tubers and millets instead of cereals and do not make fermented beverages. In recent time some scholars question the validity of such views. The disappearance of wild life has in turn deprived the tribes of their traditional sources of protein.

Our study reveals that the diet of the tribes is inadequate. There are deficiencies in diet in both the quality and quantity. Basic calories requirements are hardly met. The intake of protein is very marginal. The intake of vitamins and minerals fall far short of the desirable level. Majority of the tribals in the target villages irrespective of the Santals and Oraons, generally take food thrice a day, in the morning, noon, and night. Though few take food twice a day only, in the morning and night. Most of the tribals' morning food is *pantha* (rice prepared in the previous day). There are few tribes who have reported to take *roti* and tea in the morning. At noon they usually take rice and at night they take rice, vegetables and sometimes *dal*. The consumption of meat or milk is very rare. The fish is consumed almost daily during the rainy seasons and meat once or twice in a month. They eat meat during festival. The buying of food items is not done as per their nutritive values. The drinking of milk is not a taboo; simply they cannot afford it. Those who own cow sell milk and sometimes give to their children. The consumption of liquor is prevalent. The food habit of the tribes in the non-target villages is almost same as that in the target villages. There is a variation regarding the consumption of vegetables. Most of the tribals in the target villages have their own kitchen garden supported by the Tagore Society for Rural Development. The children below 5 years of age in the target village receive nutritious food free of cost from the Society.

Intoxication

Country-made liquor forms an integral part of the tribal life and culture. Drinking of the country-made beverages is considered a distinct phenomenon of the tribal society and almost all the tribals record their use as a stimulant. The tribal people do, of course, enjoy the sensation of being drunk. They express that they feel like king when they drink liquor fully. No social and religious festivals are performed practically without liquor. During dance, the dancers of both the sexes have a belief in getting more energy, spirit and rhythm. They drink indiscriminately and openly without any shyness, the distilled and un-distilled liquor. *Mahua* and *haria* are used as compulsory offering to their *bongas* (gods), namely *Maran buda*,

Mareko, *Jather era*, *Gosain era*, *Pargana era*, and *Manjhi bonga* are all supernatural beings and deities residing at the *jatherthan* (a sacred grove of four *sal* trees and a *mohua*) and at the *majhirthan* situated at the village outskirts during propitiation. Mourners take country-made liquors at funeral and revelers at wedding. Drink is levied to excommunicate person as fine for penalties and for readmission to his own society. *Gunin* is generally offered drinks for his service and activities. Orthodox tribals sprinkle a few drops of the liquor on the ground before sipping in honor of their deceased forefathers' souls and to please the evil spirits roaming around for not being ill after drinking (Bhowmick, 1989, p213).

Tables 25 and 26 reflect that most of the tribals enjoy drinks. Country-made liquor and *haria* are very common drinks of them. It is reported that 92.52 per cent of the tribals of the target villages have been found of drinking *haria*, rice beer, or country made liquor. Sometimes they consume country-liquor or even foreign liquor. It is observed that 93.33 per cent of the literate respondents have reported to be fond of drinks, while 92.21 per cent of the illiterate respondents have been found to drink *haria* or country made liquor. In case of the Santals of the target villages, it is reported that 90 per cent have reported to consume liquor. However 91.67 per cent of the literate respondents have reported to be fond of drinks and 89.29 per cent of the illiterate respondents have been found to drink *haria*. In case of the Oraons of the target villages, 95.74 per cent consume liquor, while 95.83 per cent of the literate respondents and 95.71 per cent of the illiterate respondents consume liquor.

Smoking is also prevalent among the Santals and Oraons of the target villages (Table-25). In general, 84.58 per cent respondents have reported to have the habit of smoking, 86.67 per cent, and 83.77 per cent of the literate and illiterate respondents respectively have reported to be fond of smoking. In case of the Santals, 76.67 per cent have smoking habit; while 86.11 per cent literate respondents have reported to have smoking habit and 72.62 per cent illiterate respondents have reported to have smoking habit. In case of the Oraons, 94.68 per cent have smoking habit, while 87.50 per cent literate Oraons have reported to have smoking habit, and 97.14 per cent illiterate Oraons have reported to have

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smoking habit. The trend of drinking and smoking among literate respondents is more in comparison to their illiterate counterpart. More than 70 per cent tribal respondents have reported to be aware about the harmful effects of consuming liquor and smoking *bidi*. The awareness of the literate respondents (80 per cent) is higher than the illiterate respondents (66.88 per cent). The tribe wise variation of the awareness regarding harmful effects of the consumption of liquor and smoking of *bidi* is negligible. It is reported that 72.50 per cent of the Santals have reported to be aware of the fact, whereas 77.78 per cent and 70.24 per cent literate and illiterate Santals respectively have reported to be aware of the harmful effects. However 68.09 per cent of the Oraons have reported to be aware of harmful effects; 83.33 per cent are literate and 62.86 per cent are illiterate.

Table 26 reflects the smoking and liquor consumption pattern among the tribals of the non-target villages. All the tribals are habituated to consume liquor. The majority of the tribes have the habit of smoking *bidi*. In general, it is reported that 93.70 per cent tribals have reported to have smoking habit, while 97.37 percent literate and 92.27 per cent illiterate respondents respectively have reported to have smoking habit. In case of the Santals, 92.27 per cent have reported to have smoking habit, of them, 96.77 per cent literate 90.51 per cent illiterate have reported to have smoking habit. In case of the Oraons, it is reported that all the respondents have reported to have smoking habit. Though majority of the tribes are aware that smoking of *bidi* or consumption of liquor is not good for health. It is reported that 68.15 per cent have reported to be aware of harmful effects, 88.16 per cent literate, and 60.31 per cent illiterate are aware of the harmful effects. In case of the Santals, 68.64 per cent are aware of the fact; 88.71 per cent are literate and 60.76 per cent are illiterate. In case of the Oraons, 66 per cent are aware of the harmful effects, 85.71 per cent are literate, and 52.78 per cent are illiterate. They drink almost every day about a litter or more at a time. Haria is believed not to be harmful and other drinks like country liquor or foreign liquor are considered harmful.

The drinking habit of the tribals of both the target and non-target villages is an important problem from the social and economic point of view. The tribal cannot think of any social and religious occasion without a supply of drink. The addiction has accentuated their poverty. Excessive drinking causes anemia, turgidity of limbs, jaundice and tuberculosis. A limited use of drinks is a habit for good health. Limited use increases appetite and digestion causing tribal people to eat a large quantity of food that gives them to possess good health, energy and strength for work. The tribals regard drinking as an exquisite pleasure, it inspires courage, confidence, bestows powers and self-trust. The moderate drinking might be acceptable, but excessive drinking makes intoxication. Drinking of excess liquor is harmful. The tribes generally take drinks at all times to quench their thirst. The *haria* is enriching the nutritional value of their diet and also corrects the deficiencies of some of their essential food. The distilled country made liquor consumed for intoxication is very harmful. Some times tribals put some harmful ingredients to *haria* for intoxication.

Table 25
Smoking and consumption of liquor among the tribals of the target villages

| Tribal groups | Smoking habit | | Consumption of liquor | | Awareness about the harmful effects | | Total (%) |
|---------------|----------------|---------------|-----------------------|---------------|-------------------------------------|---------------|----------------|
| | Yes (%) | No (%) | Yes (%) | No (%) | Aware (%) | Not aware (%) | |
| Santal | 92 (76.66) | 28 (23.33) | 108 (90.00) | 12 (10.00) | 87 (72.50) | 33 (27.50) | 120 (100) |
| Literate | 31 (86.11) | 05 (13.89) | 33 (91.67) | 03 (8.33) | 28 (77.78) | 08 (22.22) | 36 (30.00) |
| Illiterate | 61 (72.62) | 23 (27.38) | 75 (89.29) | 09 (10.71) | 59 (70.24) | 25 (29.76) | 84 (70.00) |
| Oraon | 89 (94.68) | 05 (5.32) | 90 (95.74) | 04 (4.26) | 64 (68.09) | 30 (31.91) | 94 (100) |
| Literate | 21 (87.50) | 03 (12.50) | 23 (95.83) | 01 (4.17) | 20 (83.33) | 04 (16.67) | 24 (25.53) |
| Illiterate | 68 (97.14) | 02 (2.86) | 67 (95.71) | 03 (4.29) | 44 (62.86) | 26 (37.14) | 70 (74.47) |
| Total | 181 (84.58) | 33 (15.42) | 198 (92.52) | 16 (7.47) | 151 (70.56) | 63 (29.44) | 214 (100) |
| Literate | 52 (86.67) | 08 (13.33) | 56 (93.33) | 04 (6.67) | 48 (80.00) | 12 (20.00) | 60 (28.04) |
| Illiterate | 129 (83.77) | 25 (16.23) | 142 (92.21) | 12 (7.79) | 103 (66.88) | 51 (33.12) | 154 (71.96) |

Table 26
Smoking and consumption of liquor among the tribals of the non-target villages

| Tribal groups | Smoking habit | | Consumption of liquor | | Awareness about the harmful effects | | Total (%) |
|---------------|----------------|--------------|-----------------------|----------|-------------------------------------|---------------|----------------|
| | Yes (%) | No (%) | Yes (%) | No (%) | Aware (%) | Not aware (%) | |
| Santal | 203 (92.27) | 17 (7.73) | 220 (100) | 0 (0) | 151 (68.64) | 69 (31.36) | 220 (100) |
| Literate | 60 (96.77) | 02 (3.23) | 62 (100) | 0 (0) | 55 (88.71) | 07 (11.29) | 62 (28.18) |
| Illiterate | 143 (90.51) | 15 (9.49) | 158 (100) | 0 (0) | 96 (60.76) | 62 (39.24) | 158 (71.82) |
| Oraon | 50 (100) | 0 (0) | 50 (100) | 0 (0) | 33 (66.00) | 17 (34.00) | 50 (100) |
| Literate | 14 (100) | 0 (0) | 14 (100) | 0 (0) | 12 (85.71) | 02 (14.29) | 14 (28.00) |
| Illiterate | 36 (100) | 0 (0) | 36 (0) | 0 (0) | 19 (52.78) | 17 (47.22) | 36 (72.00) |
| Total | 253 (93.70) | 17 (6.29) | 270 (100) | 0 (0) | 184 (68.15) | 86 (31.85) | 270 (100) |
| Literate | 74 (97.37) | 02 (2.63) | 76 (100) | 0 (0) | 67 (88.16) | 09 (11.84) | 76 (28.15) |
| Illiterate | 179 (92.27) | 15 (7.73) | 194 (100) | 0 (0) | 117 (60.31) | 77 (39.69) | 194 (71.85) |