

A SOCIOLOGICAL APPRAISAL TO HEALTH STATUS, ACCESSIBILITY AND AVAILABILITY OF HEALTH CARE AMONG TRIBALS IN ODISHA

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Abstract

This article has attempted to map the health status of tribal communities of Odisha by analyzing various government reports on tribal health. Findings suggest that besides sex ratio, all other health indicators of tribals of the state are in adverse condition. In the last decade, tribals have been better in accessing antenatal care, post-natal care, institutional delivery, immunization, vaccination, etc. but have not achieved the expected level and still significant number of tribal communities have failed to avail the modern health facilities. Tribals continue to suffer from poor health status such as high rate of childhood mortality, anaemia, sickle cell, malaria, thyroid, hypertension, diarrhoea, cancer etc. Lack of proper health infrastructure such as PHCs, CHCs and Sub-Centres, shortage of required medical staff and poor education are the key problems preventing tribals from accessing modern health care facilities, thus result into poor health status. Government expenditure on tribal health has been increasing perennially but there is no substantial improvement in the status of tribal health. Special tribal health policies or scheme in both national and state level is the urgent need of the hour to address the health problems of tribal communities.

Keyword: Tribal, health, maternal health, child health, health care services, disease, health policy

1. INTRODUCTION

Tribal have a distinct way of understanding health different from other communities and social groups. Health condition of tribal communities is affected by the interplay of several factors such as food habits,

quality of drinking water, sanitation, geographical location, type of habitat, education, income, work conditions, and socio-cultural beliefs and practices, etc (Report on Tribal Health in India, 2018). The development indicators provided by the Government of India and other agencies on tribal development suggests that tribals have been the most marginalized and vulnerable section in the country. Absence of sufficient food supply, personal hygiene and decontaminated environmental results into acute health problems. The degree of risky physical ventures, prevalence of high risk of genetic disorders, malnutrition, and lack of health facilities being the major causes (Rizvi, 1986; Singh, 1994; Sachidananda, 1994). End numbers of government programmes, schemes, and policies have been implemented for improved health care services. The High-Level Committee on the socio-economic, health and educational status of tribal communities of India (2014), appointed by Ministry of Tribal Affairs, has revealed that large sections of tribal population in India continues to suffer from poor health status such as high rate of mortality and morbidity, under-nutrition, anaemia, sickle cell, malaria, diarrhoea, etc. The reason behind the poor health outcome of the tribal communities in the country is due to their geographical location, living in the isolated region, strong attachment to traditional beliefs and practices, and lack of proper health plan and policies especially for tribal population and improper implementation of health schemes by the state actors (High-Level Committee Report, 2014). Government has spent cores of rupees to make tribals to be acquainted with modern health care and improve their health condition. Poor health status and poor literacy has direct impact on the health behavior and health care practices (Chetlapalli, 1991; Mohapatra and Kalla, 2000). However, majority of tribals are unwilling to leave their traditional health care

practices and adopt the modern one. Studies have found that end numbers of public health care services failed to reach tribal and address their health problems (Tarafdar, 2008; Praharaj, 2011). The unique kind of social set-up, geographical location, food habits, and socio-cultural values, prevalence of immense superstitious beliefs and lack of education has made tribal suffer distinct kinds of health problems compared to other communities (Pramukh and Palkumar, 2006).

Odisha is one of the heartland for the tribal people and since long, many tribal communities had settled in the state. There are 62 tribal communities' live in Odisha and among them; Government of Odisha identifies 13 tribal communities as Particularly Vulnerable Tribal Groups (PVTGs). Odisha constitutes 22.85 percent and 9.2 percent of tribal population of the total population of state and country, respectively. The state holds 3rd and 11th rank among States/UTs in terms of ST population and proportion of ST population to the total population of the state respectively (Census, 2011; Government of Odisha, 2013-14; Pattnaik, 2017). This article has provided an overview of the health status of tribal communities of Odisha by assessing and evaluating various health reports by the government. By doing so, it has discussed the status of certain health indicators of tribal communities of the state such as sex ratio, childhood mortality, maternal and child health, diseases, and health infrastructure, etc. The paper has identified major health challenges suffered by tribal communities in the state and their access to public health care services.

2. DATA SOURCES

Secondary sources of data have been used for this study. Along with referring articles and books on tribal health, the study has used several government reports such as Census reports, NFHS reports, and other reports provided by various research organizations.

3. RESULT AND DISCUSSION

In modern times, health status is measured through several parameters and those are sex-ratio, mortality, and fertility, life expectancy at birth, maternal mortality, food habits, nutrition status, the status of maternal and child health, and many more. An analysis of various

health indicators of tribal communities of Odisha has been discussed below.

4. SEX RATIO

As per Census 2001, sex ratio of tribal population in Odisha was 1003 whereas sex ratio of the overall population in the state was 978, and sex ratio of the scheduled tribe in India was 978. Nevertheless, sex ratio of tribal communities in the state has increased to 1029 from 1003 as per Census, 2011. In case of overall population of Odisha and tribal population of India, it increased to 1003 and 990, respectively (Census, 2001; 2011). Based on domicile, sex ratio of tribal communities in the rural areas of Odisha was better than sex ratio in the urban areas. The child sex ratio of tribal communities of Odisha had increased to only 1 percent between 2001-2011. It was 979 in 2001 and increased to 980 in 2011. There was no significant improvement in the child sex ratio of tribal communities in state. Additionally, child sex ratio of tribal communities was worse compared to sex ratio of overall tribal communities in the state. The case of sex ratio of overall tribal communities of Odisha was satisfactory and comparatively better than the sex ratio of the general population of the state and tribal population in India (Census, 2001; 2011). Data indicates that sex ratio of tribal communities have grown faster in the last decades than the state and national average. However, the poor sex ratio of tribals in urban area remains a challenge. Data suggested that there is no gender disparity in the tribal community in terms of adult population but it was clearly visible in significant numbers among tribal children. While, status of gender disparity of tribals of Odisha was better than overall population and tribal population of the country.

5. EARLY CHILDHOOD MORTALITY

As per census 2001, infant mortality of tribals in Odisha was 92 in 1000 life birth and it was 84 in the case of tribal population in India. The data showed that infant mortality of tribes in Odisha was unsatisfactory but it was moderately better compared to infant mortality of tribes in India. However, there was no major difference in infant mortality based on gender among tribes of Odisha. Infant mortality among tribes in the rural area was worse than urban areas (Census, 2001). In Odisha,

infant mortality among tribes was higher than infant mortality of the general population (NFHS-3, 2005-06; NFHS-4, 2015-16). The NFHS-4 report suggests that under-five mortality (65.6), infant mortality (55.1) rate among tribes in Odisha was significantly higher, and it was followed by neonatal mortality (35.5). Among tribals in the state, sizeable percentage of post-neonatal (16.3) and child mortality (14.6) has been recorded without having a significant difference. Therefore, post-neonatal mortality and child mortality is very less among tribals. Overall, early childhood mortality among tribal was higher than the SCs and OBCs in the state. Between NFHS-3 and NFHS-4, under-five mortality (136.3 to 65.6), infant mortality (78.7 to 55.1), neonatal mortality (54.0 to 35.5), post-neonatal (24.7 to 16.3) and child mortality (62.5 to 14.6) has declined significantly. Still, significant numbers of children die in childhood and early childhood mortality is a major problem among tribes in Odisha.

6. MATERNAL HEALTH

The sound health of the mother is pivotal for the survival and wellbeing of both mother and child. Proper nutrition, regular medical checkup of the mother is most vital during pregnancy, and post-delivery. Antenatal, postpartum, and postnatal cares are most essential and it is evident that, timely taking these health care brings down the risk of mother and their children. Delivery with proper health facilities in hygienic condition with skilled medical attention reduces the risk of mother and child during delivery (NFHS-4, 2015-16).

Receiving antenatal care from doctors by tribals women has significantly improved in recently (NFHS-4, 2015-16). As per, NFHS-3 report of Odisha, ANM/Nurses/Midwife/LHV (27.3) and Anganwadi/ICDS workers (23.9) were the main sources of antenatal care among tribal in Odisha. Significant number of tribal women (21.0) of Odisha has not taken antenatal care from any sources. However, the NFHS-4 report suggested that there has been a significant improvement in antenatal care received by tribal women from different sources. Between NFHS-3 to NFHS-4, antenatal cares received by tribals have significantly increased from 25.8 percent to 64.1 percent. Further, tribals who had not to avail antenatal care from any sources have declined to 8.2 percent from 22.1 percent between NFHS-3 and NFHS-

4. Although antenatal care services received from different sources among tribal have increased, still certain portion of tribals depends on traditional sources (Dai/TBA) of antenatal care. Rather than doctors, Anganwadi, Nurse, and village health workers were the major sources of antenatal care for tribal women in Odisha. Surprisingly, antenatal care from Anganwadi/ICD workers has declined and preference of Dai/TBA has increased recently. Compared to the non-tribal population, tribals in the state were lagging behind in availing antenatal care from modern health care providers (NFHS-4).

Between NFHS-3 and NFHS-4, ultrasound test during pregnancy among tribal women have significantly increased from 9.9 percent to 46.1 percent. Still, more than half of tribal women have not done an ultrasound during pregnancy. The NFHS-4 report suggested that women's education among tribes have played a positive role in stimulating the ultrasound test during pregnancy. Therefore, tribal women who have at least 12 years of schooling likely have done an ultrasound test than women with no schooling. Tribal women have been behind SCs, OBCs, and general population in the state in ultrasound tests during pregnancy.. Between NFHS-3 to NFHS-4, tribal women who had a delivery in health facilities have increased from 11.7 percent to 70.7 percent. Nevertheless, still significant portion of tribal women could not have delivery in a health facility. Data suggested that women with 12 years of schooling and antenatal check-up have preferred institutional birth. Delivery in health facilities and postnatal check-ups among tribal women in the state has radically increased between NFHS-3 and NFHS-4. Still, significant numbers of tribal women have failed to avail antenatal and postnatal check-up and delivery in health facilities. Availing financial assistance after delivery under Janani Surakshya Yojna (JSY) has significantly increased to 77.8 percent among tribes while mostly women in the rural areas have availed this benefit but sizeable population have failed to avail these benefits.

Tribal women from Anganwadi Centre have recorded significant improvement in availing health benefits during pregnancy and breastfeeding. Data suggested that between NFHS-3 and NFHS-4, 89.1 percent and 87.6 percent of tribal women in the state have received any benefits from AWC during pregnancy and

breastfeeding, respectively. Between NFHS-3 to NFHS-4, availing supplementary food has increased from 47.1 percent to 90.5 percent, health checkup has increased from 47.1 percent to 86.4 percent, and health and nutrition education has increased from 23.4 percent to 82.9 percent. Similarly, during breastfeeding, availing supplementary food has also increased from 58.1 percent to 87.4 percent, health checkup increased from 35.4 to 82.9, and health and nutrition education increased from 18.0 percent to 80.1 percent. Still substantial numbers of tribal women have not availed any of these benefits from AWC during pregnancy and breastfeeding. Antenatal and postnatal health care service has positive impacts on the health of mother and child and it reduces the mortality rate of the population. Data showed that there was no significant difference among tribal communities in both Odisha and India in availing antenatal and postnatal health care checkups. Compared to antenatal care, fewer numbers of tribal have taken postnatal care. Huge gaps have been recorded in receiving postnatal care among tribes in Odisha and India (NFHS-4, 2015-16). Proper and hygienic method of menstrual protection is essential for being free from various diseases. Among tribes in the state, the vast majority of women 81.3 percent have still prefer clothes for menstruation protection while 22.0 percent preferred sanitary napkins and 8.0 percent preferred locally prepared napkins. Furthermore, the vast majority of them do not use hygienic method for menstrual protection except 31.4 percent of them who had preferred hygienic methods (NFHS-4, 2015-16).

7. CHILD HEALTH

Between NFHS-3 to NFHS-4, tribal children who were not provided any vaccine have declined from 22.3 percent to 7.3 percent. Further, between NFHS-3 to NFHS-4, vaccination of all types of vaccines to tribal children has raised from 30.4 percent to 74.4 percent, which shows a positive result in the vaccination among tribal children in Odisha, but vaccination among tribals was still lower than SCs, OBCs. There was 78 percent to 92 percent of tribal children in the state who have received vaccination against six major childhood illnesses (tuberculosis, diphtheria, pertussis, tetanus, polio, and measles) but still, 7.3 percent tribal children have not received any vaccination and rest have at least partially been vaccinated. Overall, there was a

substantial increase in the overall coverage of all vaccinations among tribes in the state. Therefore, vaccination of children among tribes has significantly improved in the last decade.

Between NFHS-3 to NFHS-4, symptoms of ARI among tribal children under the age of five have increased from 1.9 percent to 2.1 percent but in the case of fever, it has declined from 13.7 percent to 11.0 percent. Between NFHS-3 to NFHS-4, diarrhoea affected by tribal children under age of five has slightly declined from 12.2 percent to 10.3 percent. Further, the percentage of children who had diarrhoea and have been taken to the hospital has increased from 55.2 percent to 61.2 percent. Added to this, providing ORS packets (63.3 percent), fluid (13.3), zinc (19.8) and intravenous solutions (0.2), antibiotic drug (13.0) has also increased significantly between NFHS-3 and NFHS-4 for the treatment of diarrhea. However, tribes in substantial number under age of five have reported diarrhoea but have not availed any treatment (22.9) and only 4.9 percent were given home remedies.

The Integrated Child Development Services (ICDS) programmes provides nutrition and health services to pregnant or breastfeeding women; children under age six and, as well as for preschool activities of children in the 3-5 age groups. These services are provided through community-based Anganwadi Centres (NFHS-4, p.18). Between NFHS-3 to NFHS-4, receiving any kind of benefits from ICDS among tribal children of age 0-71 months has increased from 69.9 percent to 82.7 percent. The most common service received by tribal children under 0-71 months between NFHS-3 and NFHS-4 were supplementary food (62.2 to 78.9), health check-up (51.8 to 71.7), immunization (43.3 to 64.4). Breastfeeding is an essential aspect of child health. It is recommended that more months a child is breastfed, the greater health benefits of a child. Tribals (76.00) were ahead in breastfeeding compared to SCs (68.9), OBCs (71.2) in Odisha (RSoc, 2014). However, between NFHS-3 to NFHS-4, the percentage of breastfeeding among tribals has slightly declined from 96.9 percent to 96.6 percent. As per the NFHS-3 report, only 49.8 percent of tribal children were breastfed within one hour of birth but it has increased to 67.8 percent in the NFHS-4 report. Still, a significant percentage of tribal children were not breastfed within one hour of their birth.

However, large numbers of tribals have preferred breastfeeding within one day of birth compared to breastfeeding within one hour of birth. Breastfeeding within one day of birth has also significantly increased from 84.4 percent to 94.0 percent.

Timely immunization of newborn children is highly beneficial for the safety and sound health of newborn babies. It has been observed that Anganwadi Centres has been largely preferred for ANC and immunization by tribals in Odisha. As per NFHS-4 report, 53.9 percent have preferred Anganwadi Centres and 49.8 percent of them have preferred government health facilities for ANC and immunization. Very fewer numbers of tribals (9.0) have preferred private health facilities for ANC and immunization. The case was opposite among tribes in India. More numbers of tribes in India have preferred government health facilities compared to Anganwadi for ANC and Immunization. Further, 91 percent of tribes in the state preferred Anganwadi for vaccination.

8. PREVAILING COMMON DISEASE

Tribal population across the length and breadth of the country is largely affected by anaemia. Between NFHS-3 to NFHS-4, prevalence of anaemia among tribal children has declined from 80.1 percent to 58.4 percent. Similarly, along with tribal children who were affected by anaemia, the percentage of their mothers affected with anaemia has also declined from 56.2 percent to 33.0 percent. However, NFHS-4 report suggests that 0.9 percent of children had severe anaemia and it was 2.2 ten years back. Tribal children were less affected with severe anaemia. However, 29.0 percent of tribal children affected with mild anaemia and 28.5 percent were moderate anaemia, as suggested by NFHS-4 report. As per NFHS-4 report, there was no significant difference in the prevalence of anemia among the mothers of tribal children who were affected with anaemia. Among the mother, 28.6 percent had mild, 22.7 percent had moderate and 0.8 percent had severe anaemia (NFHS-4). Therefore, the fact is that both children and their mothers were largely affected by anaemia among tribes in Odisha.

The NFHS-3 and NFHS-4 report show that among tribal adults in Odisha, prevalence of anaemia was higher among women than men. Between NFHS-3 to NFHS-4,

prevalence of anaemia among women and men had declined from 73.8 percent to 63.3 percent and 53.6 percent to 40.1 percent, respectively. Among tribes, women (46.9) were significantly higher percentage with mild anaemia than men (18.6) and it was opposite in the case of mild anaemia. No major difference has been found in the prevalence of mild and severe anaemia among both men and women but prevalence of mild anemia was higher among men (18.6) than women. Overall, large numbers of female children and women are affected with anaemia than male children and men adults among tribes in the state. Therefore, it can be said that anaemia is a common disease among tribes, which were prevalent among both children and adults irrespective of their gender.

Apart from anaemia, diabetes, asthma, goitre or thyroid disorder, cancer, heart disease, hypertension and tuberculosis are the common health problems suffered by tribals in Odisha. NFHS-4 report suggests that the majority of tribal men (1554) were affected by diabetes than women (773). Similarly, a large number of tribal men (2203) had suffered from asthma than women (1719). Further, large numbers of tribal women (791) had heart disease than men (592). Further, the cases of goitre or any other thyroid disorder were higher among tribal women (629) than men (242) in the state. Among tribes in the state, the percentage of men (15.7) who had hypertension was higher than women (11.3). Similarly, more numbers of women (59.7) had normal blood pressure than men (41.2). An equal percentage of both tribal men (0.6) and women (0.6) were in the stage-2 of hypertension. But, large numbers of tribal men were in stage-1 and stage-2 hypertension compared to women. So the data shows that compared to other diseases mentioned above fewer numbers of tribes had hypertension. In Odisha, the prevalence of Diabetes, Asthma, Goitre, or any other thyroid disorder, cancer and heart disease, and hypertension among tribes is comparatively lower than scheduled castes. Health insurance is very essential which provides financial support during major health crises. Around 40.2 percent of tribal women had health insurance that is lower than the tribal men (45.7) who had health insurance. Tribal women in Odisha were behind men and with SCs and OBCs in regards to having health insurance (NFHS-4).

9. HEALTH INFRASTRUCTURE IN TRIBAL AREA

The provision of proper health infrastructure in tribal areas is quintessential to improve the health status of tribals. Both central and state governments spend huge amount of money to build health infrastructure and to provide better health facilities to its citizens. A huge gaps has been recorded in the availability of health infrastructure such as Primary Health Centres (PHCs), Community Health Centres (CHCs) and sub-centre in the tribals region of the state. In the tribes region, for 8994967 tribal populations, 2689 sub-centres and 425 PHCs were available. However, the actual requirement of sub-centres and PHCs for the afore mention population was 2998 and 499, respectively. There was a short fall of 309 sub-centres 24 PHCs. However, numbers of CHCs in the region was in surplus numbers (Rural Health Statistic, 2017).

Health workers (female), ANM and were in also surplus number at sub-centres and CHCs in the tribal region of the state .The actual requirement was 3114 health workers (female) and actual posting was 3191 for the same. But there were shortfall of health workers (female) and ANM than actual sanctioned post at sub-centres and PHCs.. A huge shortfall of 4538 positions of health workers(female) and ANM at sub-centres and PHCs have been recorded in the tribal area (Rural Health Statistic, 2017). As per the requirement, there was a huge shortfall of nursing staff at PHCs and CHCs. The actual requirement of nursing staff at PHCs and CHCs in tribal areas in Odisha was 1349 but 615 were in position and among them, 318 were in sanctioned post. So there was shortfall of 734 nursing staff. There was colossal shortfall of nursing staff at PHCs and CHCs in the tribal area in the country (Rural Health Statistic, 2017). Similarly, there was a shortfall in the doctors at Primary Health Centres (PHCs) in the tribal region of Odisha. The data indicates that out of 425 required and sanctioned posts of doctors 335 were in position and 90 posts of doctors were vacant etc. (Report on Tribal Health in India, 2018).

Availibility doctors at the PHCs and CHCs in the tribal regions have been a major problem. It has been recorded that there was acute short-fall of doctors at PHCs and CHCs. Out of 359 all specialist sanctioned post of doctors, only 55 were in positions and 304 posts were vacant. There have been shortfalls of 437 all specialist positions. Out of 610 sanctioned posts of

pharmacists at PHCs and CHCs, 604 posts were in position and only six positions of pharmacists were vacant. It is surprise to note that out of 169 sanctioned posts of Lab technicians, 191 were in position. However, actual requirement was 557 positions of Lab technicians at PHCs and CHCs. Therefore, shortfalls of 365 Lab technicians have been recorded at PHCs and CHCs (Report on Tribal Health in India, 2018). It is evident from the above discussion that there was a acute crisis of health infrastructure. There was colossal difference in the actual requirement and availability of PHCs, sub-centers and CHCs in the tribal regions. Besides ANM and female health workers, there has been a huge shortfall of doctors, nurse, Lab Technicians at the PHCs and CHCs in the tribal region of the state. Odisha has performed better only the field of community health centres. Overall health infrastructure in the tribal region of state is in worse condition and not satisfactory up to the required level. Building better health infrastructure with making the availability of required health facilities is the most urgent necessity in the tribal region of the state.

10. CONCLUSION

Sound health is most desired, it is considered as an asset, and each individual seeks to achieve it. A poor health is antipathetic to the all-round development of individuals and it is obstructive to overall efficiency of individuals. Since long, health status of tribal population is in worse condition. Odisha has been taking sustained efforts through its various health care services to improve the tribal health status of tribal communities. Despite measures taken by the state, the health status of tribal population has not improved to the expected level. The finding of the paper reveals that there is no significant improvement in the health status of tribal communities in the state. They suffer acute health problems and their health status is very shoddier compared to SCs and OBCs in the state. In terms of various health indicators measured in the study, tribals of Odisha has performed better in sex ratio. Their sex ratio is very impressive and it is better than sex ratio of tribal communities across the country. Early childhood mortality among tribals has declined in the last decades. In early childhood mortality, more than half of the tribal children are victim of infant mortality followed by neonatal mortality. Post-neonatal mortality and child mortality is very less among tribals. Despite its decline,

infant and neonatal mortality among tribals in Odisha is highest in the state than the national average of infant and postnatal mortality of scheduled tribe in India. In Odisha, the infant and postnatal mortality rate of scheduled tribe has recorded highest percentage compare to urban area. Sound health of both mother and child is highly essential, but findings suggests that accessing modern health care facilities by mother and child has improved in last decades but not up to the expected level. Tribal women and children in significant number failed to access antenatal care, postnatal care, vaccination, immunization etc. Tribal women in substantial numbers could not have delivery in a health facility. Immunization and vaccination of children among tribals in Odisha has not yet become a common practice. Many of them have failed to avail the benefits under JSY schemes. Findings suggest that education of women has positively affected in accessing modern health care service for them and their children during pregnancy and after childbirth. But a large chunk of tribal women in the state are illiterate and had not completed minimum years of schooling which hinders them to go for the modern health care facilities. Therefore, special measures need to be taken to improve the education of tribal women in order to increase their accessibility to modern health care facilities and improving their health status.

Availability of modern health infrastructure with required medical staffs in the tribal region remains a challenge since long. Quality of health infrastructure in the tribal areas of the state acute. The health infrastructure and medical staff in the tribal areas are not available according to its requirement and there is a huge gap prevailing. The PHCs, CHCs, sub-centre in the tribal regions are having a huge shortfall of nursing staffs, doctors, ANM and female health workers. The government hospitals located far way from tribal habitat resulted into high dependency of tribals on Anganwadis. Overall health infrastructure in the tribal region of Odisha is in the state of worse condition, which is unsatisfactory up to the required level. The shortage of medical staffs and lack of infrastructure nearest to the tribal communities prevent them from availing better health facilities in the state. Therefore, there is urgent need to make provisions for PHCs, CHCs and sub-centres at the vicinity or at nominal distance from habitat of the tribals. It is quite evident that tribals are

unique social groups in terms of their location, food habits, and culture and socio-economic life. They suffer distinct type of health problems. Due to the distinct lifestyle and health problems, the approaches of the state to address the health problems of tribals must be unique and specific to the requirement. Since independence, both state and central governments have been spending huge amount of money on tribal health but its lacking specific health scheme or policy devoted to tribals. Instead of general health policy, both at national and state level special tribal health scheme and policy must be adopted in order to address the health problems of tribal communities.

REFERENCE

- [1] Government of India.2011. Census of India 2011, Registrar General of Census, Government of India, New Delhi.
- [2] Government of Odisha.2013-14. Micro Projects Activity Report. ST & SC Development Department, Government of Odisha, Bhubaneswar.
- [3] Government of Odisha.2013-14. Micro Projects Activity Report. ST & SC Development Department, Government of Odisha, Bhubaneswar.
- [4] International Institute for Population Sciences (IIPS) and ICF. 2017. National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS.
- [5] International Institute for Population Sciences (IIPS) and ICF. 2006. National Family Health Survey (NFHS-3), 2005-06: India. Mumbai: IIPS.
- [6] International Institute for Population Sciences (IIPS) and ICF. 2017. National Family Health Survey (NFHS-4), 2015-16: Odisha. Mumbai: IIPS.
- [7] International Institute for Population Sciences (IIPS) and ICF. 2006. National Family Health Survey (NFHS-3), 2005-06: Odisha. Mumbai: IIPS.
- [8] Mohapatra, M and Kalla, A.K. (2000). Health Seeking Behavior in A Tribal Setting. Health and Population, 23(4), 160-169.

[9] Pattnaik Sandeep Kimar.2017. Recognizing Habitats Rights of Particularly Vulnerable Grousp(PVTGs), Discussion Paper. Pune:National Centre for Advocacy Studies.

[10] Pramukh, R and Palkumar, P.D.S. (2006).Indigenous Knowledge: Implication in Tribal Health and Disease. Studies in Tribes and Tribals. 4(1): 1-6.

[11] Tarafdar, Pinak.(2008). Right to Health: The Tribal Situation. Indian Anthropologist, 8(1), 77-89.

[12] Tribal Health in India: Bridging the Gap and a Roadmap for the Future. 2018.Ministry of Health and Family Welfare, and Ministry of Tribal Affairs, Government of India.

[13] Xaxa, V. (2014). Report on the high level committee on socio-economic, health and educational status of tribal communities of India. Ministry of Tribal Affairs, Government of India