

CHAPTER-4

**Modern Health Care
Facilities
and
Programmes**

Section-A

A. 4.1- Health Service Scenario of the Country:

India is drawing the world's attention, not only because of its population explosion but also because of its prevailing as well as emerging health profile and profound political, economic and social transformations. India has traditionally been a rural, agrarian economy. Nearly three quarters of the population, currently 1.2 billion, still live in rural areas. However, India's thriving economy is raising average income levels, driving rapid urbanization, creating an expanding middle class and increasing awareness of health insurance. More women are entering the work- force that further boosts the purchasing power of Indian households. However, nearly 400 million people in India live on less than 1.25 USD (PPP) per day 1, and 44 per cent of all children are malnourished and the infant and women mortality rates are still unacceptably high despite earnest efforts by the government (World Bank data). Healthcare is one of India's largest service sectors. The Indian healthcare sector can be viewed as a glass half empty or a glass half full. This sector has been challenges some challenges including the need to reduce mortality rates, improve physical infrastructure, necessity to provide health insurance, ensuring availability of trained medical personnel etc. There has been a rise in both communicable/infectious diseases and non-communicable diseases, including chronic diseases. While ailments such as poliomyelitis, leprosy, and neonatal tetanus will soon be eliminated, some infectious diseases once thought to be under control, for example dengue fever, viral hepatitis,

tuberculosis, malaria, and pneumonia have re- turned in force or have developed a stubborn resistance to drugs.

As Indians live more affluent lives and adopt unhealthy diets that are high in fat and sugar, the country is experiencing a rapidly rising trend in non-communicable diseases such as hypertension, cancer, and diabetes that is expected to grow at a faster rate than infectious diseases. In addition, the growing elderly population will place an enormous burden on India's healthcare systems and services.

The organisation at the national level consists of the Union Ministry of Health and Family Welfare (MoHFW). In each State, the organisation is under the State Department of Health and Family Welfare that is headed by a State Minister and with a Secretariat under the charge of the Secretary/Commissioner (Health and Family Welfare) belonging to the cadre of Indian Administrative Service (IAS).The Indian systems of medicine consist of both Allopathy and AYUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy).

A.4.1.1-Rural Health Care System – the structure and current scenario

The health care infrastructure in rural areas has been developed as a three tier system (Chart A1) and is based on the following population norms:

Chart-A1-Population Norms

<u>Centre</u>	<u>Plain Area</u>	<u>Hilly/Tribal/Difficult Area</u>
Sub Centre	5000	3000

Primary Health Centre	30,000	20,000
Community Health Centre	1,20,000	80,000

Source: Rural Health Statistics, MOHFW, GOI, 2007

A.4.1.1.1-Sub Centres (SCs)-

The Sub Centre is the most peripheral and first contact point between the primary health care system and the community. Sub Centres are assigned tasks relating to interpersonal communication in order to bring about behavioural change and provide services in relation to maternal and child health, family welfare, nutrition, immunization, diarrhoea control and control of communicable diseases programmes. Each Sub Centre is required to be manned by at least one auxiliary nurse midwife (ANM) / female health worker and one male health worker. Under NRHM, there is a provision for one additional second ANM on contract basis. One lady health visitor (LHV) is entrusted with the task of supervision of six Sub Centres. Government of India bears the salary of ANM and LHV while the salary of the Male Health Worker is borne by the State governments. Under the Swap Scheme, the Government of India has taken over an additional 39,554 Sub Centres from State governments / Union territories since April, 2002 in lieu of 5,434 Rural Family Welfare Centres transferred to the State governments / Union territories. There were 1,52,326 Sub Centres functioning in the country as on 31st March, 2014. (Rural Health Statistics, MOHFW, GOI, 2007)

4.1.1.2 -Primary Healthcare Services (PHCs)

PHC is the first contact point between village community and the medical officer. The PHCs were envisaged to provide an integrated curative and preventive health care to the rural population with emphasis on preventive and promotive aspects of health care. The PHCs are established and maintained by the State governments under the Minimum Needs Programme (MNP)/ Basic Minimum Services (BMS) Programme. As per minimum requirement, a PHC is to be manned by a medical officer supported by 14 paramedical and other staff (See Annexure-I for IPHS norms). Under NRHM, there is a provision for two additional staff nurses at PHCs on contract basis. It acts as a referral unit for 6 Sub Centres and has 4 - 6 beds for patients. The activities of PHC involve curative, preventive, promotive and family welfare services. There were 25,020 PHCs functioning in the country as on 31st March, 2014.

The primary health care infrastructure provides the first level of contact between the population and health care providers. Realising its importance in the delivery of health services, the centre, states and several government related agencies simultaneously started creating primary health care infrastructure and manpower. This has resulted in substantial amount of duplication of the infrastructure and manpower.

The government funded primary health care institutions include, sub-centers and community Health centers.

A.4.1.2- Health Infrastructure-

A health system is composed of various elements such as infrastructure, human resources, financial system. Adequate infrastructure which includes buildings, equipment, supplies and communication equipment form a crucial part for health services (Kleczkowski. Et.al 1984). Poor infrastructure leads to poor quality of health services, which in turn not only wastes resources but its positively dangerous to health and welfare of the patients and the community at large. The poor suffers more if Government are not functional or are of poor quality as they do not have other choices.

India is at the crossroads of an exciting and challenging period in its history. Making healthcare affordable and accessible for all its citizens is one of the key focus areas of the country today. The challenge is immense, as nearly 73% of the country's population lives in rural areas and 26.1% is below poverty level. While on one hand, India lacks strong healthcare infrastructure, on the other hand, the country has several inherent weaknesses in its healthcare system. Though the overall level of funding allocated for healthcare nationally is comparatively high (4.1% of GDP²), the government's funding is low compared to other emerging nations. The health care delivery segment is dominated by the private sector in India, with 70% of the total delivery market in India catered to by the private sector. This presents the country with both a challenge and opportunity to not only increase the penetration of quality health services but also be the growth driver in these regions. The central government has given priority to healthcare and is making significant investments to improve the infrastructure and delivery mechanism jointly with the state governments

(who will act as the primary implementer) through National Rural Health Mission (NRHM). Before NRHM, the healthcare system in India was marked with significant disparities between urban and rural areas as well as between different states. The public delivery system did not provide enough incentives for improvement. Under NRHM, a manifold increase in the allocation for the healthcare sector has taken place across all Indian states. The central government has also proposed the National Urban Health Mission (NUHM) scheme to improve the affordability and accessibility of healthcare services for the urban poor with a focus on slum dwellers and other vulnerable groups. Several central sponsored as well as state sponsored health insurance schemes have also been introduced for the economically backward.

The demographic indicators of the country help in identifying areas requiring policy and programmed intervention, deciding priorities short-term and long-term goals. The National Health Profile, 2010, compiled by the Central Bureau of Health Intelligence, reveals the following key demographic data:

- The sex ratio (females per 1,000 males) has shown a slight improvement in the last two decades, it was 926, 933 and 940 during the 1991, 2001 and 2011 census respectively.
- The birth rate declined from 26.1 in 1999 to 22.5 in 2009, while the death rate declined from 8.7 to 7.3 per 1,000 persons over the same period.

- Life expectancy at birth has increased from 59.7 years in 1991-95 to 62.6 years in 2002-06 for males and from 60.9 years in 1991-95 to 64.2 years in 2002-06 for females.
- The increase in life expectancy is leading to an increase in the number of elderly persons in the population creating a demand for specific health facilities.
- The IMR has declined considerably from 70 in 1999 to 50 per 1,000 live births in 2009 though the difference between rural (55) and urban (34) IMR is still high.

As India continues its economic development, the proportion of the elderly in India's population will rise and is expected to increase to nearly 11.8% by the year 2025⁷. This will have several implications as the elderly population needs greater healthcare facilities, which will require higher health care expenditures than other population groups. In 2005, the National Commission on Macroeconomics and Health identified the major classes of health conditions that contributed more than 80% of the overall disease burden in India and require priority policy attention. The following table presents the disease-burden estimations for the identified health conditions: See Table above. The Reproductive and Child Health programme, part of the National Health Profile 2010, reveals the following:

- 52% mothers had at least three antenatal care visits for their last birth.

- 46.6% of child births were assisted by a doctor, nurse, ANM or other health personnel.
- 38.7% of institutional births were reported.
- 43.5% of children between the age of 12 and 23 months age were fully immunized with BCG, measles, and three doses each of polio/DPT.
- 5.1% of children between the age of 12 and 23 months did not receive any immunisation.

(Ref. Source- National Health Profile, 2010)

It is an accepted fact that the most of the rural areas in India suffer from perilous atmosphere and abysmal living conditions. Unsafe and unhygienic birth practices, unclean water, poor nutrition, subhuman habitats, and degraded and unsanitary environments are characteristics of the rural areas, making the rural habitats the first victim of epidemics. Adding to this, another fact is that the majority of the rural population is with limited resources that they spend chiefly on food and necessities such as clothing and shelter. They have no money left to spend on health and are fighting a constant battle for survival and health.

Provision and accessibility to health facilities is a critical factor in effective health treatment for people in rural areas of India, where in many areas accessibility is diminished by absence of all-weather roads, making access subject to weather conditions. Keeping this in view, the Govt. Of India launched its flagship programme, “The National Rural Health Mission (NRHM), 2005-12”, to provide effective healthcare to the rural

population throughout the country with special focus on 18 states. To monitor the performance and quality of the health services being provided under NRHM, the Ministry of Health & Family Welfare has put in place several mechanisms that strengthen the monitoring and evaluation systems, through performance statistics, surveys, community monitoring, quality assurance etc. An important component under NRHM is strengthening of rural health infrastructure including physical infrastructure and buildings, manpower and other facilities. Timely and updated data is therefore a pre-requisite for proper formulation and effective implementation of various schemes and programmes under NRHM, to assess the effectiveness of the interventions and to monitor their progress.

In spite of the efforts of the government, these Tribal areas continue to suffer from poor maternal and child health services and ineffective coverage under national health and nutrition programmes. Research and data available through surveys have found that infrastructure like Sub-Centres, Community Health Centres (CHCs), Public Health Centres (PHCs) and others are less than required in the tribal areas. NFHS-I, II and III data show trends of deteriorating health indicators and socioeconomic status of the tribal population in comparison to national statistics.

Despite lowering of the minimum population norms for Typing up of Sub Centers, PHCs and CHCs in tribal areas and also the continuous efforts of the Government of India and the State Governments, the RHS

Bulletin, published by MoHFW in April 2013 and depicting data till March 2012, shows that there is still lot of shortfall in the rural, particularly in the tribal areas. The RHS 2012 gives the details of the population norms for each level of rural health infrastructure and current status against these norms and availability of manpower is one of the important prerequisite for the efficient functioning of the Rural Health services. The RHS 2012 provides the availability of manpower at the Sub centres, PHCs and CHCs in the tribal.

A.4.1.2.1- Multipurpose Health Worker:

The concept of Multipurpose Health Workers (Male and Female) was introduced in 1974 for the delivery of preventive and promotive health care services to the community at the level of Sub-Health Centres (SHCs), the most peripheral health facilities, covering 5000 population in plains and 3000 population in hilly/ tribal/ difficult areas. The Multipurpose Health Worker (Male) is the grass root health functionary for the control of communicable diseases including Malaria, TB, Leprosy, Water Borne Diseases, as well as Environmental Sanitation, detection of disease outbreaks and their control, health education etc. The non availability of MPHWS (Male) across the states has been one of the critical issues in implementation of national programmes including National Vector Borne Disease Control Program (NVBDCP), Revised National Tuberculosis Control Programme (RNTCP), and National Leprosy Eradication Programme (NLEP).

The worst impact has been on malaria control. The malaria workers were originally supported by the Central Government, and the States had to take them over once the National Malarial Eradication Programme entered into maintenance phase. These malaria workers and other basic health workers, vaccinators, family planning workers etc. were later on designated as MPHWS (Male) on introduction of Multipurpose Health Workers Scheme as per the recommendation of Kartar Singh Committee (1973). They were given a smaller population to meet the community health needs by establishing health linkages with the local community. The implementation of public health measures such as collection of drinking water samples, environmental sanitation, school health, adolescent health programs and other National Health Programs etc. have limited success largely due to non availability of male health workers at SHCs. The non availability of health workers (Male) also has been adversely affecting the implementation of maternal and child health programs due to overburdening of the available ANMs. Introduction of several national health programs for non communicable diseases during 12th five year plan period also required the services of MPHWS (Male) for their effective implementation at field level.

A. 4.1.3- Health Status of the Hill Kharia :

On almost all the indices of health, the status of health of Hill Kharia was poor in all studied at Purulia and Bankura. This research work, revealed that the studied population faced various approaches which have direct effect on health scenario of the population health, those approaches were closely associated with:-

- a) Poverty
- b) Illiteracy
- c) Plural residence
- d) Knowledge, attitude and practice
- e) Under-privileged status and ecological factors.

In my all studied villages (Type 1 and 2) the aspects from various levels reveal that said tribal communities have poor health status. The prevalence of blindness, tuberculosis, leprosy, malaria, goitre, vitamin and nutritional deficiency, worm-infestations etc are reported. It was high in both types of villages. They lived with poor sanitation arrangements. There is no such toilet and sanitation system in all type of villages. This poor health status of the studied VTGs was to a large extent because of their rural and remoteness.

Hill Kharia of Purulia and Bankura, believed in a number of superstitions and taboos regarding food habits. For example, milk is a taboo. They are still ignorant regarding the value of immunization and vaccination. Poor personal hygiene made them, particularly the children below five years, prone to infections. The unshakable faith in witchcraft, magic, sorcery, etc. was a barrier in being open to change and adopting the advanced medical methods of fostering health.

Tribals in India are certainly an under-privileged group. They are socially as well as economically weaker than the rest of the population. Even among the other under-privileged groups they are economically the

weakest and socially distant. Tribal inhabit all over the country. The ecology, geography and climate especially in the hill regions posed a barrier to their health and quality of life. The movement of men, materials and knowledge became difficult in view of the rugged terrain and its inaccessibility. The food habits of the tribes are different and due to a very restricted type of food products, in their environment they didn't get sufficient amount of nutrients leading to alarmingly high levels of malnutrition.

A.4.1.4-Tribals and National Health Policy-

India today possesses as never before, a sophisticated arsenal of interventions, technologies and knowledge required for providing health care to her people. Yet the gaps in health outcomes continue to widen. On the face of it, much of the ill health, disease, premature death, and suffering we see on such a large scale is needless, given the availability of effective and affordable interventions for prevention and treatment. The National Health Policy addresses the urgent need to improve the performance of health systems. It is being formulated at the last year of the Millennium Declaration and its Goals, in the global context of all nations committed to moving towards universal health coverage. Given the two-way linkage between economic growth and health status, this National Health Policy is a declaration of the determination of the Government to average economic growth to achieve health outcomes and an explicit acknowledgement that better health contributes immensely to improved productivity as well as to equity.

The primary aim of the National Health Policy, 2015, is to inform, clarify, strengthen and prioritize the role of the Government in shaping health systems in all its dimensions investment in health, organization and financing of healthcare services, prevention of diseases and promotion of good health through cross sectorial action, access to technologies, developing human resources, encouraging medical pluralism, building the knowledge base required for better health, financial protection strategies and regulation and legislation for health. (Source- Draft of National Health Policy, 2015)

The dilemma in preparing any policy for the Scheduled Tribes in India is how to strike, the right balance between preservation of tribal identity, culture and values, protecting the tribes from being swamped by mainstream lifestyles, while increasing and ensuring their access to mainstream education, health care and income generation so that the quality of their life is improved. *The Panchsheel* of Pandit Jawahar Lal Nehru which laid the foundation of State Policy towards tribal development aimed at providing an enabling framework for the tribal people to move according to their own genius in a system of self-governance while sharing the benefits of development, retaining the best elements of their tradition, cultural life and ethos. The implementation of this, however, is fraught with problems because not only is the number of individual tribes scheduled under the Constitution quite large (standing today at nearly 700 State specific Scheduled Tribes), but also because the heterogeneity is immense. Each tribe is quite distinct from the other with, usually, separate languages and dialects, customs, cultural practices and

life styles. To preserve this immense diversity is an enormously difficult task, particularly since, in bringing the benefits of development to them in education, health and income generation, a significant amount of mainstreaming, and consequent loss of diversity, is inevitable. (National Tribal Policy, 2006).

Though the Constitution of India contains several provisions for the protection and development of Scheduled Tribes, and to ensure a level playing field for Scheduled Tribes and other vulnerable groups, and though several other Central and State Acts, instruments and pronouncements which have similar objectives are in existence, there is no single policy which looks at the issue of protection and development of Scheduled Tribes in an integrated and holistic manner. In order to address the issues concerning lower HDI, poor infrastructure, diminishing control over the natural resource base, persistent threats of eviction from their habitat, exclusion from mainstream society and economy in distribution of wealth and opportunities, and non-empowerment, and to place STs on a progressive and constructive path and make them active partners in nation building, a National Policy for the Scheduled Tribes is considered necessary. The policy will facilitate translation of the Constitutional safeguards into reality, with simultaneous socio-economic development.

A. 4.1.4.1-Objective of the policy-

The National Tribal Policy shall have the following objectives:

Regulatory Protection:

- Providing an environment conducive to the preservation of traditional and customary systems and regime of rights and concessions enjoyed by different ST communities, and reconciliation of modes of socio-economic development with these;
- Preventing alienation of land owned by STs and restoring possession of wrongfully alienated lands; - Protection and vesting of rights of STs on forest lands and other forest rights including ownership over minor forest produce (MFP), minerals and water bodies through appropriate legislations and conversion of all forest villages into revenue villages;
- Providing a legislative frame for rehabilitation and re-settlement in order to minimise displacement, ensure that affected persons are partners in the growth in the zone of influence, provide for compensation of social and opportunity cost in addition to market value of the land and rights over common property resources - the concept of net present value (NPV);
- Empowerment of tribal communities to promote self-governance and self-rule as per the provisions and spirit of the Panchayats (Extension to the Scheduled Areas) Act, 1996.
- Protection of political rights to ensure greater and active participation of tribals in political bodies at all levels.

A.4.1.4.2- Developments under the National Rural Health Mission:

Across States, there are major increases in outpatient attendance, bed occupancy and institutional delivery. However these developments were

uneven and more than 80% of the increase in services is likely to have been contributed by less than 20% of the public health facilities. Further, States with better capacity at baseline were able to take advantage of NRHM financing sooner, while high focus States had first to revive or expand their nursing and medical schools and revitalize their management systems. Larger gaps in baselines and more time taken to develop capacity to absorb the funds meant that gaps between the desired norms and actual levels of achievement were worse in high focus states. Inefficiencies in fund utilization, poor governance and leakages have been a greater problem in some of the weaker states. Much of the increase in service delivery was related to select reproductive and child health services and to the national disease control programmes, and not to the wider range of health care services that were needed. Action on social determinants of health was even weaker.

A.4.1.4.3-Preventive and Promotive Health:

Addressing the wider social and environmental determinants of health the National Health Policy is based on the goal of attainment of highest level of health, and not merely the absence of disease or disability. To realize this vision, the policy mandates the Ministry of Health and Family Welfare to provide a roadmap for a series of coordinated policy initiatives and practical actions, to be implemented across all sectors. This is in line with the emergent international “Health in All” approach as complement to Health for All.

Given the multiple determinants of health, it is clear that a prevention agenda that addresses the social and economic environment requires, multilevel interventions that involve sectors such as food and nutrition, education, safe drinking water and sanitation, housing, employment, industrial and occupational safety, welfare including social protection, family and community services and tribal health hazards.

Amongst the various possibilities for action, the health policy identifies coordinated action on seven priority areas for improving the environment for health with measurable achievements through well thought out and financed institutional mechanisms. These include:

A.4.1.4.3.1- *The Swachh Bharat Abhiyan*, which is already in place, would be supported, and whose success would be measured by the reduction of water and vector borne diseases and declines in improperly managed solid waste.

A.4.1.4.3.2- *Balanced and Healthy Diets*: This would be promoted through action in Anganwadi centers and schools and would be measured by the reduction of malnutrition, and improved food safety.

A.4.1.4.3.3- *Addressing Tobacco, Alcohol and Substance Abuse: (Nasha Mukti Abhiyan)* Success would be judged in terms of measurable decreases in use of tobacco, alcohol and substance abuse.

A.4.1.4.3.4- *Yatri Suraksha*: Deaths due to rail and road traffic accidents should decline through a combination of response and prevention

measures that ensure road and rail safety-. This concept could be expanded to include injuries on account of other causes.

A.4.1.4.3.5- *Nirbhaya Nari*- Action against gender violence ranging from sex determination, to sexual violence would be addressed through a combination of legal measures, implementation and enforcement of such laws, timely and sensitive health sector responses, and working with young men.

A.4.1.4.3.6- Reduced stress and improved safety in the work place would include action on issues of employment security, preventive measures at the work place including adequate exercise and movement, and occupational health- strengthening understanding of occupational disease epidemiology and demonstrate measurable decreases.

A.4.1.4.3.7- Action would be taken on reducing indoor and outdoor air pollution and measured through decreases in respiratory disease especially in children, and other pollution related illnesses.

Promotion of Yoga at the work-place, in the schools and in the community would also be an important form of health promotion that has a special appeal and acceptability in the Indian context. The National Health Policy recognizes the key role that health research plays in the development of a nation's health. Health research internationally incorporates two approaches (i) research on country specific health problems necessary to formulate sound policies and plans for field action; and (ii) contributions to global health research aimed at developing new 51 knowledge and

technologies to solve health problems of general significance, which are also relevant to the population of the country.

Section-B

B.4.1 Treatment by Modern Medical Institutions and Practitioners:

Selected Case Studies:

It is needed to mention here that the studied villagers had to go to various medical institutions and medical practitioners for their treatment. But variations were reported considering the village sector, category, economy, educational status and sex of the villagers from the medical institutions. Selected case studies and analysis of tables can give a better interpretation in the context of treatment of the disease affected villagers by the various institutions and personnel.

Case Studies:

According to the analysis of the Preliminary Schedule Form (PSF) the sample of the detailed case study of the patients in the five studied village sectors were chosen. Some important categories were made for sampling the disease affected people (in last five years). The categories are as follows-

- (i) Sex
- (ii) Procedure of treatment (traditional/ modern/ both)
- (iii) Family income (higher/lower)

The relevant cases are given here for better interpretation of different above discussed issues.

Abbreviations of categories are as follows-

M: Male;

F: Female;

L: Lower income group;

H: Higher income group;

M: Modern treatment;

B: Both (modern and traditional treatment)

m: Modern procedure at the first step of treatment;

t: Traditional procedure at the first step of treatment

B.4.1.1 Village Type: Rahidi (Type-1 village, District- Purulia)

Distant from Primary Health Centre and local market and no modern health facility in close proximity

Case: 1

Category-

FLM

As reported by her husband, Saro Sabar, age- 47years aged woman was suffering from high fever and severe weakness. Her family members were not sure about the actual cause behind the ailments. He was admitted to Maguria Primary Health Centre (PHC) for three days and blood test diagnosed *Phalciperum* malaria. Patient was given all the medicines for curing the disease at free of cost from the PHC. The patient party had to buy only one vitamin tonic Rs.300./ from outside medical shop which was prescribed by the PHC doctor. He was completely cured after completing the course of medicine.

Case: 2

Category:

MLM

Dinesh Sabar, age 15 years old boy suffered also from abdominal pain and was taken to Damodarpur Primary Health Centre where his disease was detected. According to the parents of Suren Sabar, at that time there was scarcity of medicine at PHC. Due to this reason, they had to buy all the medicines from Hura and had to spend more than Rs 250/- for that purpose. Finally the boy was completely cured.

B.4.1.2 Village Type: Ladda (Type-1 village, District- Bankura

Distant from Primary Health Centre and local place and no modern health facility in close proximity

Case: 1

Category:

FLM

Binu Sabar, a 55 years old lady suffered from arthritis for 6-7 years. As reported by his son, Primary treatment was started at local PHC, from where she was taken to a private doctor at Mukutmanipur. During this process they had to spend more than Rs.500/-, but she was not cured. In last winter her disease took a severe form and she was almost paralyzed. Then she was taken to Khatra Sub-Divisional Hospital and stayed there for 5 days. She got some relief after a long treatment. She was not able to participate in regular house hold work. A total expenditure of Rs 1500/- was reported and it was managed from the family savings.

Case: 2

Category: FLM

Very poor economic condition, mal nutrition and so many children seems to be the prime cause of tuberculosis of Daru Sabar (62 years old lady). A continuous cough was the only preliminary symptom. She was not at all attentive to her problem. After few days, she found that blood was coming

out with the cough. Then she was taken to nearest Primary Health Centre where tuberculosis was detected. Although doctor suggested taking admission, she did not take admission. Then she went to Khatra and took all the medicines as prescribed by the doctor of Khatra Sub-Divisional Hospital. Due to economic constrains her family was not able to provide advised food for remedial purpose. After six months, further detection test reported that the intensity of the disease was decreased but it was not completely cured. Although during the field survey, she was not cured but was on the process of remedy.

B.4.1.3 Village Type: Damodarpur (Type-2 village, Purulia)

Nearer to Primary Health Centre and market place and modern medical facility in close proximity

Case: 1

Category:

MHM

Bilas Sabar, a 25 years old boy was affected by tuberculosis and it existed for ten months. He or his family was not known to the reasons behind the disease because it was first time in their family. After realizing some bad symptoms he was taken to local Primary Health Centre by his father Robi Sabar. He was given all the prescribed medicine from PHC. He collected the medicine thrice a week as per the rule of PHC and completed the ten months course and expend amount of Rs. 2500/-. After six months, further detection test revealed that he was completely cured and need not to carry out further treatment.

Case: 2

Category:

MHM

Som Sabar (30 years old) was also attacked by tuberculosis. His initial symptom was cough and blood was also coming out with cough. Apart from that, he was rapidly losing his weight. Then his father was immediately taken to the Damodarpur Primary Health Centre. Along with sputum test, X-ray cost of Rs.258 was the main diagnostic test for detection of the disease. His family spent Rs. 2000/- for the purpose of detection tests in Hura Hospital. He took all the medicines as recommended by the physician. But further detection test revealed that he was not completely cured and needed a further course of medicine. During the field survey, it was found that he had been collecting the medicine from local PHC and was under the treatment.

B.4.1.4 Village Type: Sarasdanga (Type-2 village, Bankura)

Nearer to local Primary Health Centre and the market place and modern health facility in close proximity

Case: 1

Category:

FLM

Kaberi Sabar, an 18 years old girl was admitted to Jhilimili Primary Health Centre for her severe breathing trouble. Her family members were not sure about the actual cause behind the ailment. But she did not respond properly in the treatment and finally referred to Khatra Sub-Divisional Hospital. According to them, she was given artificial oxygen for one day and stayed in the hospital for three days. Due to unavailability of the medicine in the hospital, the patient party had to purchase all the prescribed medicine from outside shops. But somehow they were able to manage the free beds for the patient. At Khatra Sub-Divisional Hospital

asthma was detected for the acute breathing trouble. Since then, as suggested by the doctor they always keep an inhaler with them for the emergency purpose. But till now she was not cured during my research period.

Case 2

Category:

MLM

As his wife, a 39 year's aged Sombhu Sabar suffered from gastric problem. Poor digestion and occasional but severe stomach ache were the main symptoms of his disease. He visited initially Jhilimili PHC, then and finally at in a private chamber giving fees of Rs. 150/- in each visit. Doctor prescribed ultrasound for detecting the actual cause of the ailment. Finally gastric ulcer was detected. Prescribed medicines were brought from local medicine shop and the treatment continued up to one year. Patient had to visit the doctor three times during the treatment process. Total cost of the entire treatment was Rs. 2500/-. Although he did not get complete remedy from his ailment.

B.4.2- Selected Case Studies of Doctor:

B.4.2.1.1- Case Studies-1 (Hura PHC)-

Dr. Sushil Das MBBS, he is the only doctor in PHC at Hura. The villagers can only access this nearest health center. He stated that this tribal population notified as a burglar and so called *Chor*, so the other general people do not their society. This people's primary occupation is mainly gathering and hunting and collecting forest produce. They are very poor and cannot afford medical treatment. In serious illness this Hill Kharias

patients comes here for modern treatment. Most of them were suffering from chronic arthritis (Pain in Joints) and symptoms of gastric ulcers (pain in the stomach), at first they had practiced their own traditional treatment. He also said that Hill Kharia females visited the health care center more frequently compared to their male counterpart. This shows that women visit the health care center more often either for themselves or for their young children to seek medical advice or treatment. Dr. Deb also visited several times in Rahidi for routine visit. It was very interesting when he visited in that village, mainly Hill Kharia women come forward to him and asked for medicine and treatment. According to him, it was revealed that the distance by road from the Hill Kharia settlements is the main reason for their not being able to reach the nearest PHC in time. Transportation systems are not convenient to reach health care. This is another factor for not availing modern health care facilities in serious time.

B.4.2.1.2- Case Studies-2 (Jhilimili PHC)-

Dr. Ashok Pal, (MBBS), is the only doctor in PHC Jhilimili which is located nearer to the village Ladda. He stated that Hill Kharia female patients express displeasure on the unavailability of female health care professionals during their visit to health care center. According to him, few months ago one female patients belong to the Hill Kharia tribal communities (Name- *Birhu sabar*, Age- 42), suffered by the abdominal pain and feeling very uneasy when male health worker go to the treatment. After that she had not taken treatment in this PHC and return to

home. He said that Hill Kharia patients would like to approach health care centers only on account of uncontrolled infection or ailments even after the administration of their own medicines. Further, they may fail to buy the medicine prescribed, partly or fully and hence the delayed visit may become a futile exercise. Dr. Pal stated that there was a significant difference in the number of the health care centers, which could be approached on foot and with the help of motor vehicles from Ladda. He also mentioned that most of the villagers of Ladda did not have a clear picture about the working hours of the health care centers. Many of them expressed that working hours in health care centers as “two hours before and after lunch”. In rainy season, it is very difficult to attend or visit this health center at the time of serious illness or during pregnancy. Most of the deliveries took place in their home by TBA but recently two cases has been reported from Jhilimili PHC.

B 4.2.1.3- Case Studies-3 (Hura Rural Hospital)-

Dr. Debsankar Hansda, Medical Officer, Hura Rural Hospital, stated that this rural hospital has constituted with 30 beds. According to him, Hill Kharias of Damadrapur and Rahidi village, peoples mainly depends on their home made traditional medical practices. Actually they are emotionally and culturally attached with their own belief system in concern with health care practices. He is attached with this Rural Hospital from last one and half year. He postulate that the percentage of visiting in this Hospital is very low from Rahidi village. But interestingly the villagers of Damodarapur are little much concern to visit in this health

institution for curing different ailments. He stated that most of the Hill Kharias has consumed liquor in daily basis. They are neglected by other neighboring communities for this nature. Another main reason for unwilling to accept modern treatment is communication barrier. According to him, only 6 percent and 23 percent Hill Kharias visited in last 6 months in this Hospital from Rahidi and Damodarpur respectively. He also indicated that only 2.5 percent deliveries occurred in this Hospital and it was reported from Damodarpur village. But it is now going to be changed, health supervisor, ANM and other health worker has done their good job in those villages. He analyzed one cases in descriptive way, 4-5 months ago three Hill Kharia male came to my home at 9 PM and one of them (Soba Sabar) had bitten by venomous snake. After treatment he was cured. Later he (Soba Sabar) confirmed that homemade traditional medicine was applied on that cutting area which prepared by mixing with medicinal plants. He also consumed mahul liquor for control of spreading poison in body. But it became serious after one hour, he felt some breathing problems. They had not rely on their traditional treatment and came to my home.

B. 4.3- Modern Medical Institutions:

The concept of the state's responsibility for the improvement of public health and the idea of a citizen's right to medical care were affirmed solemnly in Article 47 of the Directive Principles of State Policy of the Indian Constitution of 1950. It is stated:

‘The state shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its

primary duties, and in particular, then state shall endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health'(G. Borkar, Health in Independent India, A Decade of Progress, Govt. of India, 1957, p.5.)

B.4.3.1 -Primary Health Centre (PHC) and Function:

In my studied areas, the PHC are the keystone of Hill Kharia's modern healthcare. This PHC is a backbone of the Hill Kharia's health concern.

PHC is a referral unit for six sub-centres. All PHCs provide outpatient services; a majority has four to six in-patient beds. According to the norms they have one medical officer, 14 Para-medical and other supporting staff. At the national level there are more than an adequate number of PHCs and doctors posted at PHCs but the distribution across states is uneven; there are no functional PHCs in many remote areas in dire need of health care. The structural details have been narrated earlier in this chapter. Now I shall discuss the facilities of PHCs in all of my studied villages of both the districts.

During the field work, I have visited in every PHC in which the studied population has frequently visited and it is found that a majority of the PHCs lack essential infrastructure. Only Haludkanali PHC under Ranibadh BPHC in Bankura and Bagda PHC in Purulia are well equipped and infrastructure. Haludkanali PHC which is located nearer to the Borda savar para, equipped with infant weighing machine and refrigerator. All the PHC in both the selected districts are fairly well equipped with the instruments

and equipments such as refrigerator, operation theatre but weighing machine and BPL instruments was mostly present.

Thus it is observed that the PHC Borda Sabar para and Jhilimili near Sarasdanga village are more equipped and have better facilities in terms of infrastructure. It is expected that the delivery of services would be effective if the prescribed medicines are made available at the PHCs. However the situation was bad regarding supply of medicine in all PHCs which comes under my research. Only around one-thirds of the PHCs had stock of iron and folic acid (IFA) tablets, contraceptives and vaccines. Only BPHCs of Ranibadh in Bankura and Hura in Purulia have the facility of intuitional delivery. According to the PHC records, of delivery cases; among said population on an average of 15 deliveries have been occurred in the last one year before the survey. It is obvious, therefore that PHCs are functioning sub-optimally and are not providing the expected health and family welfare services in mostly all villages.

Table- B.4.- Distribution and location of PHC in all the villages under the Study

Districts	Village-Type-1	Village-Type-2
Purulia	Rahidi- No PHC in this village and within 10 Km. Nearer PHC is located at Hura.	Damodarpur- only PHC located near of the Hill Kharia habitation. PHC is equipped with weight machine, some tablets and vaccine and

		refrigerator.
Bankura	Ladda- No PHC centre located nearer to 20-25 km. Depends on Jhilimili PHC.	Borda Sabar Para- Nearer PHC located at Haludkanali and well equipped with weighing machine, some tablets and vaccine and refrigerator. 4 deliveries occurred in last 9 months and fully functional. Sarasdanga- Hill Kharia of this village got their modern treatment from sub-center and Jhilimili PHC which is located 10 km away from this village.

Table-C 4.- Modern Health Institution in all studied villages-

Districts	Block	BPHC/Rural Hospita	PHC	Village
Purulia	Hura	Hura Rural Hospital	Khairipihira Bagda	Rahidi, Damodarpur

Bankura	Ranibadh	Ranibadh BPHC	Jhilimili PHC Haludkanali PHC	Ladda, Borda Savar para, Sarasdanga
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These PHCs are not immune from the issues such as incapability to detect disease early due to lack of multi-disciplinary medical expertise and a laboratory and other amenities and insufficient quantities of general medicine. In type-I villages, the Hill Kharia's usually do not visit PHCs in their early stage of diseases. Therefore, healthcare providers are forced to focus only on seriously ill patients due to heavy work load and less cautiousness. The absence of responsibility and accountability stems from the fact that there is no formal feedback mechanism and incentive to treat tribes as clients.

Table- D.4.-Reasons for acceptance of Modern health care system

Preference Status	Reason for preference	Type of Villages	
		Type-I	Type-II
Prefer Modern Medicine	Effectiveness	54 (38.7)	78 (58.8)
	Easy to access	32(32.6)	70 (56.9)
	Providers good behaviour	8 (3.5)	84 (63.8)
	Cheaper	6 (2.6)	8 (3.5)
	Can't say	15 (12.4)	16 (8.6)

Source- Field work 2016

It can be seen that all the PHCs has administrated the vaccinations for polio, diphtheria and measles and TB. The following data has been collected through PHC visit, register records and case study of different health personnel in my all studied villages-

From table 4.13, it was found that structure of health infrastructure is very poor in Ladda and accessory of the said tribal population with the PHC was not up to the mark due to the above stated reason. Mostly ANMs are trained through Government Medical colleges. The involvement of Hill Kharia is standard stage at Borda sabar para and Sarasdanga (TYPE-II) villages. It is also stated that home based neo-natal care is well maintained at Damodapur village.

B.4.3.2- Special Health Plan for Purulia District-

This special project (Tribal Health Project) is totally controlled and funded by the Dept. of Health and Family Welfare, Govt. of West Bengal. This programme was launched in Purulia in September, 2007.

This project is mainly focused on Hill Kharia (Sabar) and Birhore community in 10 selected Blocks in Purulia- Baghmundi, Balarampur, Jhalda, Bandwan, Barabazar, Manbazar-II, Manbazar-I, Hura, Puncha, Purulia-I. The villages of Hill Kharia;s are covered under this project.

Focus:-

1. Provide integrated and quality public health care service.
2. Assess the unmet needs of RCH services in different tribal communities.

3. Promote community participation and inter sectorial co-ordination.
4. Develop 1st referral services and tackling emergencies.
5. Training of the local tribal persons/TBAs to act as link volunteers in the block / SC areas.

B.4.3.3- Ayushmati Scheme-

In this scheme, SC, ST & BPL pregnant mothers can avail free medical services from accredited health institutions. The beneficiaries will get the following services at free of cost from the accredited health facility –

- Delivery (Normal/Assisted/CS)
- Investigation
- Essential New Born Care (Upto 28 days)

B.4.3.4- Rajiv Gandhi National Drinking Water Mission-

In India, although the provision of rural water supply (RWS) is primarily the responsibility of the respective State Governments, the Central Government contributes a significant part of the program funds for this sector. The first major push to rural water supply came with the Accelerated Rural Water Supply Program (ARWSP) in the 1970s, which gave full grant to the State governments for implementing water supply schemes in problem villages. By March 1981, the coverage of rural water supply was 30.8 per cent. Following the International Drinking Water Supply & Sanitation Decade (IDWSSD) [1981-91], the second major push came by establishing the National Drinking Water Mission (NDWM), later renamed as the Rajiv Gandhi National Drinking Water Mission

(RGNDWM) and it became the world's largest, Government sponsored demand based and participatory drinking water supply program.

The focus of the Rajiv Gandhi National Drinking Water Mission (RGNDWM) was to adopt a community-based demand-driven approach instead of the hitherto government forced supply driven approach. In doing so, the projects under RGNDWM are basically community participation oriented in nature – with a part (minimum of 10% of the proposal) of the capital cost required to be borne by the community themselves. The balance amount is contributed by the Government of India.

As per the guidelines, the implementing agencies for the program may be decided by the respective State Governments. The implementation should be entrusted to one single Department in the State, with a view to better implementation, monitoring of the progress and the like. If the program has to be implemented through more than one Department, one of the Departments should be designated as the Nodal Department for co-ordinating the Rural Water Supply Programs and sending consolidated progress reports to the Central Government. The Panchayati Raj Institutions (PRIs) are also supposed to be involved in the implementation of schemes – particularly in the selection of the location of stand-posts, spot sources, operation and maintenance, fixing of water tariff, etc.

In all studied villages, the main source of drinking water depends on the occurrence of hand pump or tube well or well at villages. Importance of drinking water for healthy being and relation with the community life, I have drawn a special attention on this scenarios. In order to assess the

issue of access to drinking water in a holistic manner, efforts were made to elicit information from the respondents of the household survey on the following 5 key parameters.

B.4.3.4.1-Safe and Round-the-year Availability

Two type's villages TYPE-I and TYPE-II have been categorised on the basis of availability of water from safe source, are presented in the following table —

Village TYPE	No. of Household	% Households Receiving Safe & Round-the-Year Supply
ONE	65	18%
TWO	94	42%

Source- 2014-16 field work

It was found that only 18 percent of households has gets safe drinking water in type-I village, and 42 percent in type-II villages.

B.4.3.4.2- Safe, Round-the-Year and Sufficiency-

It is very hard to get sufficient quantity of drinking water throughout the year, because both Purulia and Bankura are having less rain in West Bengal. Particularly during summer the wells go dry and villagers often resort to digging shallow wells near the river bed to collect the water. The

household has been categorised on the basis of availability of water from Safe, Round-the-Year and Sufficiency, are presented in the following table

Village TYPE	No. of Household	% Households Receiving Safe, Round-the- Year and Sufficient Quantity of Water
ONE	65	22%
TWO	94	51%

Source- Field work- 2014-16

From the table, it can be noticed that the difference is quite large between TYPE-I and TYPE-II villages on this parameters.

B.4.3.4.3- Distance of Water Source-

Under RGNDWM, one of the norms for a habitation to be considered as ‘Fully Covered’ is the availability of water source within the habitation or within a radius of 1.6 kms in plains areas. Accordingly, data were analysed for households on the basis of (having access to safe as well as unsafe water) having access to main water source within or beyond the 1.6 kms. The following table concluded sources of drinking water from households-

Village TYPE	No. of Household	% Households having Access to Drinking Water Sources within or beyond 1.6 kms
ONE	65	65%

TWO	94	87%
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Source- Field work 205-17

From above result, only 65 percent of households having get safe drinking water within radius of 1.6 km. The majority of peoples wash their clothes in the pond water and very few of them using tube water. As the physico-chemical properties cannot be changed easily, it is advisable for the Hill Kharia to boiling and cooling water before consumption.

B.4.4-Vaccines for Immunization-

Immunization against common childhood diseases has been an integral component of mother and child health services in India since adoption of the primary health care approach in 1978 being reinforced by the Declaration of Health Policy in 1983.[National Health Policy 1983]

Vaccination is one of the most cost effective strategies available in public health today. In addition to protecting the vaccinated individual from developing a potentially serious disease, vaccines help protect the community by reducing the spread of infectious diseases. It is highly fitting that one of the most dramatic successes in the history of public health. At present our public health system has reached a stage where basic infrastructure for immunization programme, system for vaccine delivery, cold chain and vaccine production capacity are in place. A potential exists where the immunization programme can expand its immunization activities beyond infancy to accommodate newer vaccines for adolescents and adults, depending on disease burden and cost-effectiveness of the intervention.

Social, cultural and economic factors continue to inhibit women from gaining adequate access even to the existing public health facilities. This handicap does not merely affect women as individuals; it also has an adverse impact: on the health, general well-being and development of the entire family, particularly children. This area is of grave concern in the public health domain. In the vulnerable sub-category of women and girl child, this has a multiplier effect for the future generations.

Available data for Indian states shows a close correlation between maternal mortality and infant mortality rate (Padhi, 2001). There is global evidence showing that wherever infant mortality is high, fertility is also high (Kulkarni, 1992; Ghosh, 1991; Sai, 1988). 'Any attempt to reduce fertility without reducing mortality would be like putting the cart before the horse' (Kulkarni, 1992). Thus to reduce fertility, child survival rate should be raised first. And this can be best done by universal immunization to all eligible mothers and children. This would in turn raise the overall health standard of the mass; reduce morbidity and mortality and lower fertility.

In India, under Universal Immunization Programme (UIP) vaccines for six vaccine-preventable diseases (tuberculosis, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, and measles) are available for free of cost to all. UIP was launched in 1985 with much dynamism to attain the target to immunize all eligible children by 1990. Lot of energy and money has been spent on the UIP but it does not reap the much hyped outcome. Unmistakably, various survey results show the glaring gap between the target and achievement even after several years. The Govt. of

India (GoI) took steps to strengthen maternal and child health services as early as in the First and Second Five-Year Plans (1951-56 and 1956-61). As part of the Minimum Needs Programme initiated during the Fifth Five-Year Plan (1974-78), maternal health, child health, and nutrition services were integrated with family planning services.

The primary aim at that time was to provide at least a minimum level of public health services to pregnant women, lactating mothers, and preschool children. As part of National Health Policy, the National Immunization Programme is being implemented on a priority basis. In the wake of diphtheria, pertussis, tetanus, and poliomyelitis and childhood tuberculosis, the Expanded Programme on Immunization (EPI) was initiated in India in 1978 (WHO launched it globally in 1974) with the objective to reduce morbidity, mortality and disabilities by making free vaccination services easily available to all eligible children and pregnant women by 1990. The GoI constituted a National Technical Committee on Child Health on 11th June, 2000 and launched Immunization Strengthening. [Ref-Project Recommendation of the Committee (Annual Report, 2002-03, MoHFW, pp-173.)]. The Department of Family Welfare established a National on 28th August, 2001 to assist GoI in developing a nationwide policy framework for vaccines and immunization. Reducing child mortality by two thirds between 1990 and 2015 is the fourth of eight Millennium Development Goals endorsed by world leaders in the Millennium Declaration in 2000.

Ghosh (1991) also argues that the goals of 'Health for All' can be 'achieved partly by immunization and partly by better nutrition. Preventive health care, therefore, requires immunization as well as good sanitation, proper nutrition, and availability of safe drinking water as the minimum of social needs that must be met before we embark on an ambitious plan of government outlay for development'. He also asks for 'convergence of services' instead of several projects with similar goals to make effective and efficient use of the funds.

Tremendous progress has been made since polio eradication activities were first introduced in 1995. India is now recording the lowest levels of polio virus transmission ever, and is poised to completely interrupt transmission in the very near future. From the beginning of the polio eradication initiative, India has been the world's largest polio endemic country. Before the introduction of National Immunization Days (NIDs) in 1995, an estimated 35,000 children were paralyzed by polio in India each year. Pulse Polio Immunization Programme began in December, 1995 as part of a major national effort to eradicate polio. In the context of Polio eradication, George, et al (2004) argued for reassessing eradication strategy in view of the prevailing epidemiological situation in the country. Almost all of the 91 polio cases reported in India as on November 20, 2004, are from Bihar and UP (<http://www.childinfo.org>).

There has been an overall improvement in immunization coverage in India, but my studied section documents the fact that while improvements have been larger in magnitude for them, absolute proportions are still low and gaps between this tribal population and non-tribal children remains

high, especially in my studied villages. Now the Government takes initiatives to get the pace of improvements for tribal women occurred at a faster pace than those for other women, the low base from which the former started has driven their faster progress. Moreover, gaps between tribal and other women on a range of indicators related to access to maternal health care is very much diverse. For instance, the proportion of tribal women going for ante-natal visits or using contraception remained lower than the population average or the average for women belonging to other social groups in the villages. In TYPE-I villages specially in Purulia (Rahidi) Poor coverage of all weather roads makes transportation in emergencies virtually impossible, even if health centers were attended by medical personnel or local villagers. It was also found mostly in TYPE-I villages, for instance that villagers took a young child to the nearest hospital only when his or her condition was critical given difficulty with transport (poor road condition) and the expenditure associated with hiring a vehicle. They also identified “giving birth” as a risk because mothers could not reach health centers due to inadequate road access, particularly during the rainy season

The vaccination of children against six serious but preventable diseases (tuberculosis, diphtheria, tetanus, poliomyelitis, and measles) has been a cornerstone of the child healthcare system in my all studied villages in both TYPE-I and TYPE-II villages. Data were collected from 57 Hill Kharia mothers from TYPE-I villages and 68 Hill Kharia mothers from TYPE-II villages, through a structured questionnaire and focused interview methods. The awareness of mothers about various essential

vaccines was remarkably poor in all Type of villages. Majority of the mothers (69%) depend on health workers, followed by government hospitals (16%) and private practitioners (4%) for vaccinating their children reported from TYPE-II villages. But the scenario is quite different in TYPE-I, here only 43% women received assistance of health workers for vaccination. The data status is very low in the villages of Purulia (Rahidii) other than Bankura (Ladda, Sarasdanga) in TYPE-I.

It was noted that a huge numbers (71.43) of children did not receive a single vaccine in TYPE-I villages. The main reason behind this scenario is to be lack of awareness of immunization and traditional belief which practiced by the Hill Kharia of those villages. The obstacles to optimal health care are greatest for children born into poverty; those are also likely to be exposed to infectious diseases and unclean water, and are at the great risk of malnutrition. Measles, polio, hepatitis B and some other diseases can only be controlled through immunization. Government health workers are supposed to be the source of information on immunization. But unfortunately it is very difficult to achieve those villages easily. None of the children in this community was fully vaccinated (3 doses of DPT and 4 doses of OPV, BCG and measles). Only 75% of children had received BCG vaccine at birth in TYPE-I villages. The first dose of DTP was received only by 62% and the coverage of OPV at birth, vaccination for measles and vitamin A were also very low. On the other site, the villages located nearer to the urban center (TYPE-II), the status of immunization

coverage's is quite better than TYPE-I. Delivery of healthcare services plays a significant role in improving the coverage of immunization.

It seems to be noted that all villages in TYPE-II are in quite better state in concern of child and mother immunization than TYPE-I villages. The main reason behind this circumstance is location of PHC from the villages. ANM, health supervisor and ICDS workers are more active in those TYPE-II villages (Damodarpur, Borda Sabar para and Sarasdanga) and performing their duty seriously. The status of immunization of different vaccines is in meager position at Rahidi due to cognitive nature in traditional health care and another point is isolated from others communities.

A large number of cases related to anemia were reported from all the AWCs in TYPE-I as well as TYPE-II villages. Women between ages 15 to 49 and babies between the age of 6 to 16 months are found as anemic in large number. In fact few numbers of Goiters reported from village Rahdii and Sarasdanga 3-4 years ago due to iodine deficiency. Iodine salt supply was reported from TYPE-II health center.

From table B.4.7, mostly in all villages women's are suffering from anemic problems but it is quite high in TYPE-I villages (above 70+ %). Another cases reported from AWCs, that Vitamin-A deficiency disease are very common in all villages. In all the AWCs, nutritional supplement such as *dal* (piles), oil, and rice are being provided. In addition, a periodic health checks up, immunization, referral services, early childhood care and distribution of nutritional supplement to promote child health are being provided. Only a few cases a periodic health check up has been reported

from the register in AWCs. In this cases health worker stated that Hill Kharias are very orthodox in their own belief system regarding health and nutrition.

B.4.5 -Modern Medical Personnel: Role and Activities-

The Constitution mandates the state to provide basic health care to all its citizens. In keeping with the input oriented development model, essentially a supply side response to the problem, and the theory of the "trickle down" and "cascade" effect, provisioning of health care services was perceived to be a function of establishing health care institutions as per a population norm. The need for a "differential" approach for tribal areas was restricted to the setting of differential norms for establishing facilities and not in content or approach.

Accordingly, for every 3000 population a sub-centre (SC) was established and for every 20,000 population a primary health centres (PHC) as opposed to the norm of 5,000 and 30,000 respectively for the non-tribal areas. Accordingly, as on today, there are in the tribal areas, 111 PHCs (a four-fold increase from 32 during 1982) and 823 SCs, (an eight-fold increase from 108 during 1982) along with 294 mobile medical units (MMU), 21 hospitals and 18 dispensaries. Thus, against one PHC for every 40,000 population in the plains areas, there is one for every 7,772. Likewise, for every 7,000 persons one sub-centre in the non-tribal areas, there is one for every 1,251. There are an estimated 277 doctors, 1,720 health workers and 260 health supervisors working in the tribal areas (Rao.K Sujata, 2012)

In reality in my research areas, however, the positive aspects of this impressive spread of infrastructure has got negated by the highly dispersed nature of the Hill Kharia populations. In TYPE-I villages, the PHCs and sub-centers have been so located that the distances to be covered (in these areas this means by foot) average about 10 kms and 5 kms. Thus, though manpower availability purely in terms of ratios do not seem to be adverse, the sitting of the facilities, and poor communications, has resulted in making distance and physical access a major barrier for the utilization of health care services at villages like Ladda and Rahidii (TYPE-I). Lack of accommodation, poor infrastructure, large-scale absenteeism and vacancies, poorly trained and unmotivated manpower, are thus the reasons for the near absence of health care services in all TYPE of villages.

One of the key issues in tribal areas is poor physical access of tribal communities to health facilities. The villages like Ladda (Bankura) and Rahidi (Purulia) which comes under TYPE-I type, are physically isolated, concentrated in certain regions and districts and in hilly and forested areas that make communication and access to services difficult even in normal circumstances. While distance to health facilities in said village pockets is an issue, a larger problem is of absenteeism of service providers. High absenteeism in turn is attributed to postings in tribal areas being perceived, generally, as ‘punishment postings’ that are assigned to the non-performers. Some frontline workers resign even before attending their first training; yet others continue to draw salary despite not visiting the Anganwadi or primary health center (PHC) for years altogether. According to *Shibu Sabar, Mitali sabar, Soga Sabaraa* and others of the Ladda

(Bankura) and Rahidi (Purulia) admitted that the treatment in the PHCs is unsympathetic and casual here, if not hostile and exploitative; there is a serious crisis of credibility as, irrespective of the illness or complaint, the same medicines are administered - two white and one red - because of which most confessed to throwing them away; inconvenient timings and uncertainty - after a 10 km walk, they normally find the PHC "closed". Unable to afford being sick for long, the those peoples find it less expensive to seek private care, which has a measure of certainty, prompt service, better quality of medicines, and in some cases, such as small medical store availability at villages near Rahidi of inpatient facilities for treating fevers, minor surgeries, etc.

B.4.5.1- Doctors (Government and private sectors):

It is normally assumed that the non-functioning of the public health system would result in the proliferation of the private sector. This has not happened. Low incomes resulting in low ability to spending on health care is the main reason for the poorly developed private sector in the tribal areas. Private care in the tribal areas consists of a few qualified practitioners, some quacks and government health workers by and large concentrated in the relatively better developed areas.

It was reported in almost all the villages in TYPE-I and TYPE-II, the failure of government institutions to provide effective health care services is the main reason for the huge out-of-pocket expenses being incurred by the Hill Kharias on purchasing basic health care services from the private market - a minimum of almost Rs 200 per episode of illness (average

cost)- towards transport, professional fees, drugs and tests if possible. In general all the studied villages, the private practitioners mostly are unqualified practitioners practice aggressive medication, prescribing a range of antibiotics. But different scenario comes from the village Sarasdanga (TYPE-II, Bankura), Mr. L.Jha has issued prescription for normal doses medicine on request. For any minor surgeries or complications, people travel 60 to 100 km distance. The cycle between hunger - disease - low levels of productivity, (measured both in terms of absence from work as well as duration) - low wages - indebtedness - reduced consumption levels - disease, is reflective of how the development process has, largely, avoid them. *Digbo Sabar, (Rahidi)* stated that the doubling of prices of most essential commodities - kerosene, oil, salt, matchboxes, etc. so it is very difficult to received proper health care from modern health institutions. According to him, we are well known about Government health facilities and now-a-days Government has provided many health care facilities to us. But money is the main barrier to perceive and practices modern health care. The money required for health care is raised by taking loans at high rates of interest from other non-tribal individuals ranging from 5 to 10 percent per month. According to the *Mira sabar, Janu Sabar, Bhokta sabar and others* of village Ladda (TYPE-I), stated that the nearest PHC (Jhilimili PHC) lacks sufficient health personnel, work interest of the staff, adequate supply of medicines, and equipments also. An Ayurvedic centre was also established nearer to the village Mukutmanipur, which generally remains closed for most of the time due to insufficient supply of medicines. Only one private registered

medical practitioner (Bablu Sarkar) is there in the village Damodarpur (TYPE-II), Purulia who is devoted to his profession and Hill Kharias do have faith in him. After seeking home medication and other traditional treatments, they consult with this private practitioner. If the patient doesn't get cured by him, they move to referral hospital at Hura Rural Hospital, Serious cases are further referred to the Purulia sadar hospital. Villages of TYPE-I Rahidi and Ladda, which lacks any kind of modern health care facility, is not easily accessible by Government health personnel as it lacks a metallic road. For this reason ANM or other health staffs has not shown their interest to work in those remote villages.

B.4.6- Different Reasons, Categories and Frequency of Diseases in TYPE of villages:

Table 4.8 highlighted the trend of occurrence of disease in both the Type of villages during my research period.

The table also shows the number of people who got cured using modern medicine. It was revealed that the occurrence of fever, cold and cough was reported to be high in TYPE-II villages in comparison to the TYPE-I village. The occurrence of diarrhea was very frequent in both TYPE of the villages. But malaria cases were common in TYPE-II mainly Damadarpur of Purulia and Sarasdanga in Bankura. In case of jaundice it was also found to be more in second Type of villages. But skin infections were very much common in TYPE-I and TYPE-II villages. Another high frequent ailment was found among Hill Kharia children i.e, worms. Most of the children of age group (2-15 yrs) suffered by worms in TYPE-I villages and

also Damodarpur, Borda Sabar para in TYPE-II villages. Almost all other diseases like Arthritis, chest pain, tuberculosis found in all studied villages. In Damodarpur, 3 males were affected by leprosy. Mostly females were suffered by the white discharge problems which was widespread in all Types of villages. It was revealed that almost above 12% of peoples affected by Asthma problems and it was reported from Borda sabar para (12.68%) and Damodarpur (11.98%) in TYPE-II and Rahidi (12.56%) in TYPE-I villages. It was also reported that cough, cold and dysentery problems in rainy season. These all types of diseases were found in all TYPEs of villages but frequently in June to October. I had analyzed this circumstance and found that only 10%-14% peoples affected by cough, cold and dysentery in winter and summer season but scenario is different in monsoon and post monsoon season. The average affected person increased to 25-30 percent in all Types of villages during that season. It was discussed in earlier chapter of this thesis that disease affected person initially preferred traditional medicine rather modern medicine which preferred in serious cases of diseases. But lack of facilities in distant villages especially in TYPE-I, drew people's attention towards traditional healing system. Traditional healer could not pursue the treatment of malaria among the studied population. But in case of jaundice, Hill Kharias had more faith on the traditional healers. It was reported that local traditional medicine men has more confidence in this type of disease than other diseases like malaria. It was revealed that 4 jaundice cases were reported from Damodarpur village and all 4 persons had utilized the service provided by the traditional healers. While treating tuberculosis the

affected persons had utilized the health care services provided by the Government hospitals and nearest PHCs. It showed Hill Kharia perceived change of weather as major cause of fever, cough and cold. Their perception in context of Diarrhea lack of nutrition was one of the major causes known to them. This also established the reason why most of the affected people sought treatment of traditional healers instead of modern treatment. The perception from TYPE-I village noticed that ill effect of bad work done in the past was thought as one of the causes of disease. As described in previous chapter, deities and spirits play a significant role in controlling the health system among them mainly in long distance villages from semi-urban center. One of the village head man of Hill Kharia community from Rahidi said that many times in order to make doctor's (modern medicine) effective, one need to offer worship to *sitala maa* (village deity) with the help of priest. After offering the worship (*puja*), if he/she takes medicine given by the doctor then, it will work.

The main reason of malaria was rightly perceived by mosquito bite. It was worthwhile to note that the change of weather did not literally mean the change in physical weather. It might have meant beyond that which included the total surroundings constituted by natural and super natural beings. As mentioned earlier that Hill Kharia peoples need spiritual security during illness as most of the diseases are caused due to the influence of supernatural beings and it's the main reason to rely on traditional healers. Modern medicine does not have the same. The research revealed that approximately 80 and 56.6 percent of peoples suffering from fever were treated with home-based herbal medicine in TYPE-I and

TYPE-II respectively. It was also revealed that in case of common cold, cough and fever the Hill Kharias were found reluctant to go for treatment. They used to perceive it as seasonal problem and believed in natural cure. It was noticed after the PHC and Hura Health center visit that diarrheal death reported from mostly in Maguria PHC and Hura Rural Hospital among Hill Kharias.

Maguria and local PHC provide kit A and kit B to the villagers now-a-days. ARI (Acute Respiratory Infection) and diarrhea are common leading causes of childhood morbidity and mortality in TYPE-I villages as per the report of the PHC. Kit A contains IFA, Vit-A, Cotrimoxazole tablets, ORS packets and kit-B contains methyl ergometrine, melate tablets, paracetamol, Dichlorine tablets with cotton and bandages. According to one of the health worker of Maguria PHC, the Hill Kharias had sold all of these to the nearest medicine shop.

Table 4.9, showed that the health awareness was not so good in both TYPE of villages. It was revealed that the perception of disease caused by bad spirit and more interestingly peoples affected by jaundice and malaria due to have an effect of bad spirit. Bad work in the past is another reason of jaundice. The health education was in poor state among all Type of villages. They were mainly depends on firewood for cooking purpose and the main source of firewood is forest. According to them, many of Hill Kharia men and women were beaten by snake and dead. During field visit, it was reported that food was generally undercooked due to the shortage of firewood which could be cause for their ill health.

In earlier discussion it was revealed that most of the children and women members were suffering from skin disease. According to the local Doctor, they were affected by skin disease due to unhygienic cloth which they wired. Money is the main obstacle of this factor among them. I had analysis through following table,

From above table, it can be said that most of the Hill Kharia peoples are totally dependent on the pond water in concern with washing cloths and utensils. But they do not wash their clothes in daily basis. Bathing soap is not frequently used by them in all studied villages. According to them, some older villagers have been seen to use muddy clay as a substitute of soap during bath. According to them, the muddy clay acts as a sterilizing agent on the skin.

B.4.6.1- Pattern of Diseases among Mother and Child-

According to the local PHC MBBS doctor of Haludkanali, Antenatal care (ANC) refers to pregnancy- related health care provided by a doctor at village of Sarsdanga or a health worker. He stated that the Hill kharia's are not aware and do not accept a modern health care treatment of any ailments even in any critical issues. PHC health worker visited regularly in this village and feedback from their end is satisfied one. Majority of Hill Kharia respondents (72.9%) knew about antenatal care check-up and 68% had received any antenatal care services. More than half of respondents (56.8%) had registered their pregnancy status in health facility. Antenatal

care services were analyzed for recently delivered respondents (n=12), nearly 90% of respondents had their first ANC visit in the fourth month of pregnancy. Only 5% had received full antenatal care that comprised of at least three ANC visits, two or more TT injection and minimum 90 IFA tablets. Only 9% of respondents had received third ANC visit (*Reported from Register PHC and Interview with Doctor*). The situation is quite difference at TYPE-I village comparison with Sarasdanga and other TYPE-II villages. About one third of the respondents in both Rahidi and Ladda villages stated that their conception on disease treatment is still in orthodox in nature.

The disease pattern among mother and child (age group 0-5 yrs) can be divided as High Frequent Diseases (HFD) and Low Frequent Diseases (LFD) among the mother and child. In the present study, I have selected the point of scale for LFD as <1%-20% population whereas >20% in case of HFD, according to the distribution of diseases.

≤ 20%

>20%

LFD

HFD

In TYPE-I village, children of 0-5 years age group were found affected by skin disease (32%) and worms (28%) [Chat B4] and women suffered from white discharge (20.83%) and anemic problems (20.83%). As the percent population exceeds 20%, it was designated as HFD. In TYPE-II village, children were more vulnerable to skin diseases (34.88%) [Table- 4.9] and others diseases were categorized under LFD. HFD among women in TYPE-II village was white discharge (23.08%) [Chat B4] According to the PHC health workers, the tuberculosis (TB) washighly prevalent among

women of both TYPE of villages. The health workers also indicated that smoking was high among women. However, there is a marginal decrease in smoking due to awareness and cultural contact with other communities. It is reported that HFD in TYPE-I and Type-II villages is skin disease among the children (age group 0-5 yrs). The children were vulnerable of skin disease because most of them have not taken bath regularly. They had not used any bathing soap and all of them taken bath in nearest pond. Almost 28% of the children in TYPE-I village had been affected by the worms. The main reason behind this factor is unhygienic living condition. But in TYPE-II villages worms have comes under LFD status (13.95). Dysentery is one more HFD in TYPE-I and 20 percent of children and women has suffering by this. Meanwhile, women's of TYPE-I villages had been suffering from white discharge (20.83%) and Anemia (20.83) while little high 23.08 percent women distress with white discharge problems. All other disease like abdominal pain, anemia, piles, pregnancy problems has comes under LFD. But interestingly, 12.5 percent women suffered by the pregnancy related problems in TYPE-I whereas only 3.85 percent in TYPE-II villages. According to the PHC doctor, it is occurred due to unwilling to visit in PHC or any health institution during pregnancy period by TYPE-I women's.

Chat- B.4.- Shows HFD and LFD at both TYPE of village among Child and Women

HFD>20%			TYPE-I (Child 0-5)	LFD≤20%										
Skin Disease	Dysentery	Worms		Cough & cold	Fever									
32	20	28		16	4									
HFD>20%			TYPE-II (Child 0-5)	LFD≤20%										
Skin Disease				Dysentery	Cough & cold	Fever	Worms							
34.88				16.28	16.28	18.6	13.95							
HFD>20%				TYPE-I (Women)	LFD≤20%									
White discharge	Anemia		Dysentery		Skin disease	Cough & cold	Chest Pain	Pregnancy Problem	Arthritis	Pox	Abdominal Problem	Piles		
20.83	20.83		8.33		4.17	4.17	8.33	12.5	4.17	4.17	12.5	0		
HFD>20%				TYPE-II (Women)	LFD≤20%									
White discharge			Dysentery		Skin disease	Cough & cold	Chest Pain	Pregnancy Problem	Arthritis	Pox	Abdominal Problem	Piles	Anemia	T B
23.08			9.61		5.77	15.38	9.61	3.85	3.85	3.85	11.54	1.92	9.61	1.92

Source- Field data-2014-16

B.4.7.- Place of Birth:

Childbirth practices have been part of social, political, economic and hygienic reforms in India since the 19th century (Hodges S, 2006) in an attempt to combat infant and maternal mortality. From the 19th century to

the beginning of the 21st century, reproductive reform was dominated by the ideas of overpopulation linked with general underdevelopment and poverty. The reforms for childbirth included providing a new transition for childbirth from home to hospital and a new attendant, replacing the Traditional Birth Attendant (TBA) with a qualified midwife or physician, otherwise known as a Skilled Birth Attendant (SBA) as is the current practice (World Health Organization,2004). Place of delivery is an important indicator of access to modern health care and also peoples' perception and action regarding child birth, women's health and social custom. The international maternal health policies have changed from 'Birth by trained Traditional Birth Attendants (TBA)', and 'Risk screening in the antenatal period' during the 1980's to Skilled Birth Attendance (SBA) and Emergency Obstetric Care (EmOC) from late 1990's onwards (Starrs AM. Safe motherhood initiative). More recently, an important international discourse influencing national maternal health policies in developing countries was 'Every pregnancy is at risk'. As a consequence, all pregnancies should be attended by Skilled Birth Attendants (i.e. a qualified midwife or doctor) with backup being provided by health centres in case of complications (MoFHW,2005).

This part of my thesis explores the perspectives of women on childbirth; their choices, reasoning behind decisions and conceptualisations of good/bad and normal/complicated childbirth as moulded by modernity and general developments, state policies and changing biomedical technologies. One of the important major thrust areas is place of birth mainly in tribal areas like Purulia and Bankura (villages under study). It is

noticed that more than 92.22% of the most recent delivery among Hill Kharia mothers had been taken place in their own home in TYPE-I villages whereas 87.69% in TYPE-II and very few cases of institutional delivery were reported (7.78% from TYPE-I village and 12.31% from TYPE-II village). Choices are clearly made on the basis of perceptions regarding care as well as cultural comfort. According to them, women prefer deliveries at home for the reason of familiarity with the local tradition and supportive environment. The locals are dependent on local “Dai”, who generally lives close to villages. Moreover, no modern health institutions are available near TYPE-I village and poor connectivity to the nearest health centre forces them to rely on home delivery.

The table revealed that in the first Type of villages out of total 33 cases of childbirth only 18.1 percent were occurred in hospital and rest of women them delivered their babies at home. In every village there were some women who were well-known for assisting in delivery. They were not trained but people had good faith in them and as many as 81.9 percent of births were attended by them in the first Type of villages. But scenario is quite different in TYPE-II villages, 33.3 percent childbirth were occurred in nearest Hospital and it was happened due to better communication and transportation system than TYPE-I. Friends and relative also helped in one case (2.56%) which reported from Sarasdanga village.

It was felt important to note that the general notion of tribal people regarding healthy women did not encourage women to give her baby birth outside home. A healthy woman was she who could give birth to her babies without any complication, without the knowledge of outsiders and

without interference in day-to-day life. Medical check-up during pregnancy was mainly meant for those who encountered some physical problems not curable by traditional practices and healers. Thus it was clearly indicative that childbirth was viewed not essentially as a medical problem by most of the Hill Kharia women.

From discussions with the Programme Managers during the visits to the district Purulia as well as with the Block Health Office, Hura, it was clear that the priority for maternal health demanded by the state headquarters (as per the current national maternal health policy) was performance on achieving institutional births, more specifically the utilization of the *Janani Suraksha Yojana (JSY)* and the *Chiranjeevi Yojana (CY)*, the two priority strategies for maternal health as explained in the following section. Though aware, the women were confused about the Government's two maternal health initiatives; The JSY, a national scheme to promote institutional births under the Reproductive and Child Health programme Phase II and the CY, a state-run initiative. Under the JSY scheme, the women get INR 500 for childbirth in hospital, INR 200 for the cost of transport and INR 50 for the person helping them to get to hospital. Under the CY scheme, the women categorised as living below poverty line, get free delivery services in certain private maternity hospitals enrolled in the scheme, for both normal and C-section births.

According to *Moti Mahato(TBA)*, the majority of homebirths in the villages Rahidi were attended by TBAs, which was both a necessity as she was the only choice available and preferred because she was known and trusted by the Hill Kharai's. The TBAs took the risk of assisting

complicated births such as breech presentations at home. Under pressure from the Government to reduce maternal deaths, the Block Health Office is steadily controlling the TBAs by giving them incentives to bring birthing women to the hospitals; these are four times more rewarding than the fees paid by the families to attend a birth.

B.4.7.1.1- Delivery System-

Pregnancy is considered as a normal phenomenon among the Hill Kharias and no special care is observed by the pregnant women. Place of delivery is one of the most important factors affecting the maternal and child health. According to Kharias, if married women miss their menstrual cycle, they are pregnant. Most of the deliveries are supervised by the Traditional Birth Attendant (TBA) or Dai and assisted by mother-in-law, sister-in-law and other elder women of their community. The role of TBA had been discussed in previous chapter. Before delivery process begins, the root of 'apang' [*Achyranthus aspera*] is placed on the pregnant woman's head. From their cognitive point of view, it is helpful to relieve from the labour pain. Deliveries are usually conducted in lying condition on bed. The umbilical cord is tied with a white thread before severing. After the delivery, the umbilical cord is cut with a Snail (Jhinuk). TBA or Dai assists the pregnant women for safe delivery. Five or six hours after the delivery, the baby is given bath with warm water by the TBA. Mustered oil is applied on baby's entire body and it is followed by hot fomentation to protect the baby from infection and to keep it healthy. But no specific precaution was reported during the deliveries, which results in increased

infection rates. Most of the deliveries were conducted at home by the 'Dai' (TBA). It was also found that in both the villages most of people were less aware about the significance of breast feeding.

Most of the respondents in both TYPE of villages stated that there was psychological comfort in giving birth at home, as they were managed within the community, in the presence of the birthing women's family, friends and neighbours. Homebirths were relatively economical and convenient because the older children and cattle were not left unattended. They had been also demonstrated that hospital births were described as being alone in the labour room with strangers such as nurses, doctors or other attendants. Family and friends were not allowed. The women felt uncomfortable with the at times non-courteous behaviour of the staff. Hospital births were costlier compared to homebirths.

4.8- Forest Ecology and Women Health-

Nature symbols from every realm of nature are in a sense signed with the image of Nature. Prakriti lives in stone or tree, pool, fruit or animal, and is identified with them. According to the *Kalika Purana*, Rivers and mountains have a dual nature. A river is but a form of water, yet it has a distinct body. Mountains appear a motionless mass, yet their true form is not such. We cannot know, when looking at a lifeless shell, that it contains a living being. Similarly, within the apparently inanimate rivers and mountains there dwells a hidden consciousness. Rivers and mountains take the forms they wish (*Kalika Purana*, 22-10-13,).

Forests have always been central to Indian civilization. They have been worshipped as Aranyani, the Goddess of the Forest, the primary source of life and fertility, and the forest as a community has been viewed as a model for societal and civilizational evolution. The diversity, harmony and self-sustaining nature of the forest formed the organisational principles guiding Indian civilization; the aranya samskriti (roughly translatable as 'the culture of the forest' or 'forest culture') was not a condition of primitiveness, but one of conscious choice.

The living, nurturing relationship between women and nature here differs dramatically from the notion of woman as separate from and dominating over nature. A good illustration of this difference is the daily worship of the sacred *tulsi* within Indian culture and outside it. *Tulsi* (*Ocimum sanctum*) is a little herb planted in every home, and worshipped daily. It has been used in Ayurveda for more than 3000 years, and is now also being legitimised as a source of diverse healing powers by western medicine. However, all this is incidental to its worship. The *tulsi* is sacred not merely as a plant with beneficial properties but among in my studied communities Hill Kharia, the symbol of the cosmos. In their daily watering and worship women renew the relationship of the home with the cosmos.

The forest based tribal economy in most of parts of the world is women-centred (Menon, 1987, 1991). Women make provision for basic necessities like food, fuel, medicine, housing materials etc from the forest produce. Food is obtained from Minor Forest Produce (MFP) like flowers, fruits collected from the forest. Extraction from herbs, roots and animals are

used as medicine. All these efforts include as excessive workload on women. Food gathering and fodder collection has been women's work, primarily, women as foragers were critical in managing and renewing the diversity of the forest. Their work was complementary to that of men.

The excessive cutting of trees by vested interest, the distance between the villages and the forest areas had increased, forcing the tribal women to walk longer distance in search of minor forest produce and firewood. In this rapidly changing milieu tribal women were confronted with an extraordinary workload.

My research revealed that women put in an average of 10 working hours per day as compared to 8 hours of a men. Given this additional workload, even women in advance stages of pregnancy were required to work in the agricultural field and engaging to manufacture homemade bamboo handicraft or walk a great distances to collect fuel and minor forest produce. The over strain on tribal women however was not adequately compensated due to non-availability of minor forest produce and decrease in food grain production. To add to the malnutrition and additional workload, there was a destruction of traditional herbs through deforestation and the lack of access of the tribal to modern medicine. This along with the increasing ecological imbalance resulted in disease such as TB, stomach disorder and malaria. For the Hill Kharia tribes of Purulia and Bankura, the forest is the context and condition of survival and existence. The *mohua* (*Bassia latifolia*) is special for the Hill Kharia, of the Purulia and Bankura. A large deciduous tree, usually with a short bole, spreading

branches and a large rounded crown, it is one of the most important forest trees of India. The Hill Kharia Women collect fleshy corollas of its flowers which are eaten raw or cooked, or dried, ground and mixed with flour for making cakes, or distilled into spirit. Thick white oil extracted from the seed is used by studied communities for cooking and burning. The tree is never felled owing to the value of its flowers and fruits. Even when forest land is cleared for cultivation, the *mohua* trees are carefully preserved and are found scattered over cultivated lands long after clearing has taken place. According to the Hill Kharia peoples, trees bear crops of flowers and fruit when about ten years old and yield about 40 kgs flowers per year. It is not surprising then, that to the forest dwellers peoples of Hill Kharia, the *mohua* is the tree of life.

Table-4.1- Shows different types of diseases among the (o-5) child at TYPE-I

Village

Age Group	Diseases affected children															Total affected population		Total population
	Skin Disease			Dysentery and others			Cough & cold			Fever and others			Worms and others			M	F	
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	
0 to 2	3 (75)	1 (25)	4 (44.44)	2 (50)	2 (50)	4 (44.44)	1 (100)	-	1 (11.11)	2 (66.67)	1 (33.33)	3 (33.33)	3 (75)	1 (25)	4 (44.44)	5 (55.56)	4 (44.44)	9 (100)
3 to 4	3 (75)	1 (25)	4 (44.44)	2 (50)	2 (50)	4 (44.44)	1 (25)	3 (75)	4 (44.44)	2 (80)	1 (20)	3 (33.33)	2 (66.67)	1 (33.33)	3 (33.33)	5 (55.56)	4 (44.44)	9 (100)
5	2 (100)	-	2 (66.67)	1 (50)	1 (50)	2 (66.67)	1 (50)	1 (50)	2 (66.67)	2 (66.67)	1 (33.33)	3 (75)	1 (100)	- (50)	1 (25)	2 (66.67)	1 (33.33)	3 (100)
Total-	8 (80)	2 (20)	10 (47.62)	5 (50)	5 (50)	10 (47.62)	3 (42.85)	4 (57.14)	7 (33.33)	6 (66.67)	3 (33.33)	9 (42.85)	6 (75)	2 (25)	8 (38.09)	12 (57.14)	9 (42.86)	21 (100)

N.B- No. of children affected more than one disease.

Table- 4.2- Shows Different types of diseases among the Reproductive
Women (15- 45 age group) at TYPE-I village

Age Group	White discharge	Anaemia	Dyscentry	Skin disease	Cough & cold	Chest Pain	Pregnancy Problem	Total affected person	Total population
15- 24	7 58.33	1 8.33	1 8.33	3 25	-	-	-	12 (100)	12 (100)
25-34	10 (47.62)	4 (19.04)	1 (4.76)	1 (4.76)	1 (4.76)	2 (9.53)	2 (9.53)	21 (100)	21 (100)
35-45	4 (36.36)	4 (36.36)	1 (9.09)	-	-	--	-	9 (81.81)	11 (100)
Total	21 (50)	9 (21.43)	3 (7.14)	4 (9.53)	1 (2.38)	2 (4.76)	2 (4.76)	39 (92.85)	42 (100)

Table-4.3- Shows Different types of diseases among the Reproductive Women (15- 45 age group) at TYPE-II village

Age Group	White discharge	Anemia	Dysentery	Skin disease	Cough & cold	Chest Pain	Pregnancy Problem	Arthritis	Piles	Pox	Abdominal Problem	TB	Eye Problem	Total affected person	Total population
15-24	14 (31.11)	12 (26.67)	4 (8.89)	6 (13.33)	2 (4.44)	-	3 (6.67)	-	-	1 (2.22)	3 (6.67)	-	-	45 (71.42)	63 (100)
25-34	12 (27.91)	6 (13.95)	2 (4.65)	7 (16.27)	2 (4.65)	1 (2.32)	7 (16.28)	-	3 (6.97)	-	3 (6.97)	-	-	43 (81.13)	53 (100)
35-45	3 (13.04)	9 (39.13)	1 (4.34)	2 (8.69)	-	-	1 (4.34)	2 (8.69)	1 (4.34)	-	1 (4.34)	1 (4.34)	2 (8.69)	23 (92)	25 (100)
Total	29 (26.57)	27 (24.32)	7 (6.30)	15 (13.51)	4 (3.60)	1 (0.91)	11 (9.91)	2 (1.80)	4 (3.60)	1 (0.91)	7 (6.30)	1 (0.91)	2 (1.80)	111 (78.72)	141 (100)

Table-4.4 – Shows different types of diseases among the (o-5) child at TYPE-II village

Age Group	Diseases															Total affected children	Total population
	Skin Disease			Dysentery			Cough & cold			Fever			Worms				
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T		
0 to 2	3 (60)	2 (40)	5 (16.67)	2 (28.57)	5 (71.43)	7 (23.33)	5 (55.56)	4 (444.44)	9 (30)	5 (55.56)	2 (28.57)	7 (23.33)	2 (100)	-	2 (6.67)	30 (78.94)	38 (100)
3 to 4	2 (66.67)	1 (33.33)	3 (17.64)	4 (100)	-	4 (23.53)	1 (33.33)	2 (66.67)	3 (17.65)	1 (50)	1 (50)	2 (11.76)	3 (60)	2 (40)	5 (29.41)	17 (77.73)	22 (100)
5	2 (66.67)	6 (33.33)	8 (29.63)	2 (50)	2 (50)	4 (14.81)	1 (50)	1 (50)	2 (7.40)	1 (33.33)	2 (66.67)	3 (11.11)	6 (60)	4 (60)	10 (37.03)	27 (84.37)	32 (100)
Total-	6 (75)	2(25)	8 (10.81)	8 (80)	2 (20)	10 (13.51)	5 (50)	5 (50)	10 (13.51)	3 (37.5)	5 (62.5)	8 (10.81)	5 (45.45)	6 (54.54)	11 (14.86)	74 (80.43)	92 (100)

Table- 4.5- Coverage of Various Vaccines among Children (age group- 0-2yrs)
in both TYPE-I and TYPE-II villages

Vaccines	Total No. of children (Nos.)		No. of children received vaccine	
	TYPE-I	TYPE-II	TYPE-I	TYPE-II
BCG at birth DPT-(1½ months)	6 (100)	13 (100)	3 (50)	9 (69.23)
DPT-2 (2½ months)	2 (100)	6 (100)	-	4 (66.67)
DPT-3 (3½ months)	1 (100)	4 (100)	-	2 (50)
OPV at birth	6 (100)	12 (100)	-	7 (58.33)
OPV-1 (1½ months)	6 (100)	6 (100)	-	2 (33.33)
OPV-2 (2½ months) (Those completed 3 months)	2 (100)	4 (100)	-	2 (50)
OPV-3 (3½ months) (Those completed 4 months)	1 (100)	4 (100)	-	2 (50)
Measles (9 months) (Those completed 10 months)	7 (100)	16 (100)	2 (28.57)	9 (56.25)
Vitamin A (9 months) (Those completed 9 months)	7 (100)	16 (100)	-	6 (37.5)
Not received a single vaccine	8 (100)	13 (100)	8 (44.44)	13 (33.33)
Total Child (0-2y)	18 (100)	39 (100)		

Table- 4.6- Immunization: various vaccines (Child and Mother)-

Type of villages	Name of Villages	Vaccines to infants given for										Pregnant women vaccination	
		A		B		C		D		E		TT	OTH.
		Y	N	Y	N	Y	N	Y	N	Y	N		
TYPE-I	Rahidi	46 (76.05)	16 (23.95)	06 (6.08)	28 (58.87)	-	-	07 (8.67)	38 (87.65)	5 (4.24)	48 (91.26)	18 (17.83)	08 (6.78)
	Ladda	42 (65.78)	13 (34.22)	4 (3.67)	48 (67.98)	-	-	9 (10.65)	55 (88.98)	7 (7.56)	61 (92.47)	16 (24.66)	9 (11.45)
TYPE-II	Damodarpur	18 (94.78)	4 (5.22)	12 (78.98)	3 (12.90)	3 (45.67)	5 55.98	9 34.87	15 65.09	10 78.92	4 22.11	18 67.87	8 23.90
	Bordasabar para	16 88.98	3 11.12	12 69.89	5 22.67	4 35.78	7 65.45	4 45.67	6 51.46	3 56.78	2 43.22	5 62.76	1 34.56
	Sarasdanga	13 95.76	1 4.24	12 66.25	6 33.75	4 23.68	9 65.90	4 38.90	8 67.06	5 62.87	2 37.13	6 69.80	2 44.67

A- Polio,
 B- B- Diphtheria,
 C- C- Pertusis,
 D- D- Tetanus,
 E- E- Measles,
 F- OTH- Others

Table- .4.7- Nutritional Disorder reported from AWC in all studied villages

Type of Villages	Name of villages	15-49 Yrs. Women are Anemic	Goiter Cases	Iodized Salt supply (Basis of Family)		Vitamin-A deficiency disease
				Y	N	
Type-I	Rahidi	14 (71.45)	2 (5.56)	7 (27.78)	15 (72.22)	5 (21.56)
	Ladda	16 (74.67)	-	10 (45.34)	12 (54.66)	7 (32.5)
TYPE-II	Damodarpur	21 (52.65)	-	32 (80.5)	8 (19.5)	11 (23.76)
	Borda sabar para	12 (61.78)	-	16 (78.90)	4 (21.10)	3 (19.60)
	Sarasdanga	18 (67.89)	1 (6.76)	22 (76.56)	8 (33.44)	6 (25.76)

Source- Register of PHC and field data 2016-17

Tab- 4.8- Occurrence of different diseases and treatment by MBBS
doctor by Type-I and Type-II villages

Source- Field data 2015-17

Name of Diseases, related symptoms	TYPE-I		Total population	TYPE-II		Total population
	Persons Affected (All age group)	Persons helped by MBBS Doctor healer		Persons Affected (All age group)	Persons helped by MBBS Doctor healer	
Asthama	5 (3.01)	-	166	25 (3.93)	5 (20)	636
Cold & cough	14 (8.43)	3 (21.42)		31 (4.87)	6 (19.35)	
Diarrhea	14 (8.43)	2 (14.28)		25 (3.93)	3 (12)	
Fever	17 (10.24)	-		22 (3.45)	8 (36.36)	
Malaria	3 (1.80)	-		7 (1.10)	1 (14.28)	
Jaundice	22 (13.25)	-		13 (2.04)	2 (15.38)	
Skin Disease	17 (10.24)	4 (23.53)		38 (5.97)	11 (28.95)	
Tuberculosis	4 (2.41)	-		8 (1.25)	2 (25)	
Worms	9 (5.42)	3 (33.33)		27 (4.24)	5 (18.52)	
Total	97 (58.43)	12 (12.37)		--	196 (30.82)	

Table- 4.9- Perception about the causes of disease by TYPE-I and TYPE-II villages

Disease	No specific data		Weather change		Lack of nutrition		Bad spirit		Mosquito bite		Total No. of peoples respond	
	TYPE-I	TYPE-II	TYPE-I	TYPE-II	TYPE-I	TYPE-II	TYPE-I	TYPE-II	TYPE-I	TYPE-II	TYPE-I	TYPE-II
Fever	12 (35.29)	17 (51.51)	18 (52.94)	19 (57.57)	1 (2.9)	2 (6.0)	3 (8.8)	3 (9.09)	-	2 (6.06)	34 (100)	33 (100)
Cold and cough	8 (23.52)	16 (40)	22 (64.70)	22 (55)	2 (5.8)	1 (2.5)	2 (5.8)	1 (2.5)	-	-	34 (100)	40 (100)
Diarrhea	10 (31.25)	9 (30)	8 (25)	8 (26.67)	10 (31.25)	8 (26.67)	4 (12.5)	5 (16.6)	-	-	32 (100)	30 (100)
Malaria	8 (28.57)	6 (21.5)	1 (3.57)	1 (3.1)	1 (3.57)	1 (3.1)	6 (21.48)	6 (18.7)	12 (42.8)	18 (56.2)	28 (100)	32 (100)
Jaundice	5 (23.81)	4 (20)	1 (4.76)	2 (10)	1 (4.76)	-	14 (66.67)	14 (70)	-	-	21 (100)	20 (100)

**** Bad work of past as a reason for causation of Jaundice has been mentioned by 20.2 percent in TYPE-I and 32.0 percent in TYPE-II village.**

Tab- B.4.10- Perception of Hygiene

Type of Village	Name of village	How often they change cloths		Where do they wash cloths		Use of Soap during bath		Total respondent population about hygiene	Total population
		A	B	C	D	Y	N		
TYPE-I	Rahidi	12 (21.42)	8 (14.28)	16 (28.57)	35 (62.5)	11 (19.64)	45 (80.35)	56 (62.22)	90 (100)
	Ladda	10 (16.12)	28 (45.16)	8 (12.90)	52 (83.87)	14 (22.58)	48 (77.42)	62 (81.58)	76 (100)
TYPE-II	Damodarpur	121 (45.66)	97 (36.60)	78 (29.43)	156 (58.86)	98 (36.98)	167 (63.01)	265	390 (100)
	Sarasdanga	34 (41.97)	12 (14.81)	33 (40.74)	56 (69.13)	35 (43.81)	46 (56.79)	81 (72.32)	112 (100)
	Borda sabar para	16 (19.51)	8 (9.75)	22 (26.83)	48 (58.54)	23 (28.05)	59 (71.95)	82 (61.19)	134 (100)

Note- A- Once in 3 days, B- Once in 5 days, C- Tube well, D- Pond, (All data in percentage and data collected through interview).

No. of respondents has given muliple answer as per above parameter

Tab- B.4.11- Distribution on the basis of place of child birth and attainment in both Type of villages

Types of Village	Place of Delivery	MBBS Doctor	Untrained <i>Dai</i>	Total Respondents who has given answer
TYPE-I	Institutional	6 (18.18)	-	33 (100)
	Home	-	27 (81.82)	
TYPE-II	Institutional	14 (35.90)	-	39 (100)
	Home	-	25 (64.10)	

Tab-.4.12- Trends of Delivery place on the basis of health institution

Category of Village	Modern Health Institution			Home		Total number of mothers who has given answer on their child birth
	BPHC	Rural Hospital	Hospital	Own home	Parents home	
TYPE-I	04 (12.12)	02 (6.06)	-	25 (75.75)	02 (6.06)	33 (100)
TYPE-II	9 (23.07)	03 (7.69)	02 (5.12)	22 (56.41)	03 (7.69)	39 (100)

Source- Field data 2015-17

NB. BPHC- Block Primary Health Center

Table- 4.13- PHC: ANM & infrastructure

Type of Village	Name of Village	Structure of Health Infrastructure		Involvement of Hill Kharia		Home based Neo-natal care		ANM got trained		Total number of Respondents has given answer	Total population
		Y	N	Y	N	Y	N	Y	N		
Type-I	Rahidi	5 (6.49)	9 (11.68)	14 (18.18)	17 (22.07)	6 (7.79)	12 (15.58)	6 (7.79)	8 (10.39)	77 (85.55)	90 (100)
	Ladda	-	4 (7.14)	12 (21.43)	23 (41.07)	2 (3.57)	12 (21.43)	1 (1.78)	2 (3.57)	56 (73.68)	76 (100)
Type-II	Damodarpur	12 (5.08)	21 (8.90)	65 (27.54)	42 (17.79)	65 (27.54)	10 (4.23)	9 (3.81)	12 (5.08)	236 (60.51)	390 (100)
	Borda Sabar para	23 (22.54)	12 (11.76)	32 (31.72)	12 (11.76)	7 (6.86)	15 (14.70)	1 (0.98)	-	102 (76.11)	134 (100)
	Sarasdanga	23 (26.43)	9 (10.34)	21 (24.13)	14 (16.09)	11 (12.64)	07 (8.04)	2 (2.29)	-	87 (77.67)	112 (100)