

Public health and medical facilities of Ganjam district in south Odisha

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Abstract

The southern part of Orissa comprising the seven districts such as Ganjam, Gajapati, Rayagada, Koraput, Nabarangpur, Malkangiri and Kandhamal is a tribal dominated region and were mostly covered with hills and forests. The people of the region especially schedule Tribes and Schedule Castes were socially, economically and culturally most backward. The people being mostly illiterate were naturally unaware of the simple principles of hygiene and sanitation. Neither any public health measures seem to have been undertaken nor any medical institution established in this part of the country before 20th century. For centuries this region was almost inaccessible mainly for two reasons. Firstly, the Ghats which separate it from the coastal plains were not easy to cross and secondly, the climate of the forest covered hilly tract lying to the west of Ghats was considered inhospitable to foreigners. The district of Ganjam came into existence with effect from 1-4-1936 after it got separated from Madras Presidency and became a part of Orissa province constituted from that date. The name 'Ganjam' means 'Granary of the World'.

Ganjam district is situated in the coastal region of the state surrounded on the North by Khurda district, on the East by the Bay of Bengal, on the West by Khandhamal and Gajapati district and on the South by Andhra Pradesh. It is between 19.00' and 20-17' of the Northern Latitude and 84-6' to 85-11' of Eastern Longitude. The geographical area of the district is 8206 Sq. Kms Primary healthcare infrastructure is being improved in the district. Healthcare facilities and quality health services at the referral level have contributed to reduction of diseases. By encouraging institutional delivery and providing better child healthcare, infant and child mortality, and maternal mortality have been reduced. However, HIV/AIDS has emerged as a serious public health problem in Ganjam because of the risky sexual behavior of migrant population. Awareness and targeted interventions have been implemented in the district for prevention and control of HIV/AIDS. High incidence of malaria is also a matter of concern. Efforts have been made to control and combat the same through NMEP and other interventions including strengthening active surveillance in the district. However, there are other diseases such as filarial, leprosy and tuberculosis that still need to be addressed. Poor sanitary condition and unsafe drinking water cause water borne diseases such as jaundice, diarrhea and worm infections. Women and children are less vulnerable and enjoy better health now because of various government interventions. Effective implementation of health and other development programmes in rural and urban areas of Ganjam has helped in reducing infant and maternal mortality, improving health and sanitation of the people in general and women and children in particular.

The district of Ganjam has 124 government health care facilities and 17 private hospitals with a bed strength of 3058 beds only. Among the other public health facilities CHC's share the highest percentage of OP consultations (44%) and IP admissions (44%). For FY 2015-16 MKCG, Berhampur had a BOR of 81.4% whereas Pvt. Hosp.lital has a higher than optimum BOR which is 97.7%. The High BOR in two most premier healthcare facility in the district indicates the need for additional bed strength to meet the rising demand of healthcare services. Among the studied facilities OP to IP conversion for FY 2015-16 has been highest at Pvt. Hosp.lital (20%). Availability of quality services and affordable rates is the prime reason for the population's preference for Pvt. Hosp.lital. Considering data for FY 2015-16, surgeries performed at the district are mostly minor surgeries (72%). For 2015-16 overall Lab tests accounts for majority (94%) of total diagnostics at the studied facilities, whereas CT-Scan facility is available only at MKCG, Berhampur and account for only 1% of the total diagnostic procedure in the district. It can be inferred that at secondary care level only 31% of the existing demand is being met for OPD and 25% for IPD. Considering the WHO norm of 3.5 beds per 1000 population, the district has a shortfall of 10031 beds (i.e. a gap of 77% beds). Considering the WHO norm of 1 doctor per 1000 population, the district has a shortfall of 3408 doctors. As per population survey response, majority of the respondents choose government hospital over private for health care services. As a part of a broader health sector enhancement program, the Government of Odisha (GoO), wants to strengthen and enlarge the private health sector facilities and promote the participation of quality private health providers across all the 30 districts in the state to enhance the health infrastructure in the state by structuring and implementing the rollout of low cost hospitals across the state in a PPP model which will offer decent quality care at affordable prices.

The district is divided into plains and the hilly country above Ghats-chiefly inhabited by Khondas and Savaras. There is no systematic records regarding the public health and medical facilities of Ganjam district in early times. An organized system of medical and public health began in the erstwhile Madras presidency with establishment of the Indian Medical Department in 1786 A.D. The department was administered by a board consisting of a physician general, a surgeon general and an Inspector of Hospitals with a secretary attached. In the early stages, he was primarily concerned with the additional responsibility of rendering medical assistance to prisoners in jails. In those days vaccination was the only form of medical aid provided by Government and whenever an epidemic broke out in viru-

lent form medical relief was made available though the agency of practitioners of Indian system of medicine Before the in of the western system of medicine or allopathy, Ayurvedic system was popular mainly among the people of the plains of this region. Ayurveda received royal patronage from the Rajas and Maharajas. The Vaidyas and Kavirajas were the chief exponents of this system. This region has the unique distinction of having produced many great scholars of Ayurveda whose works are said to be of considerable merit. They are Yogi Praharaj Mohapatra of Nandapur (author of Baidaylankara, Baidyahrudayananda and Smriti Darpan all of 18th century), Maguni Das (author of Ayurveda) of Digapahandi, Chakrapani Dash author of Abinava Chintamani (18th century).

The system of Adhia i.e., lying prostrate before a deity till one's wish is fulfilled is often adopted by poor and illiterate patients after desperately trying various systems of medicine to get rid of chronic diseases.

The first Government hospital of the district was established in 1881 at the Sorada and a dispensary at Garabandha was opened in 1892. The Subdivisional Hospitals of Bhanjanagar and Chhatrapur were established in 1901 and the Subdivisional Hospital of Paralakhemundi was opened at Berhampur in the year 1907 and Mission hospitals were managed by the Christian Missions. Both the Hospitals were managed by the Christian Missions. Besides, Some department of the employees. Public health programmes did not exist at that time. People had faith in the indigenous system of medicines, witchcraft and sorcery for certain epidemics like cholera and small-pox and in treatment of certain diseases, like schizophrenia, lunacy and epilepsy. In early days people had a belief that the infectious diseases like small-pox and cholera generally occurred due to the wrath of village deities. The inhabitants of maliahs or the high lands, however, had their own beliefs and methods of treatment. To ensure good health, the Meriah or human sacrifice before the deities was prevalent among the Khonds. No medicine was ordinarily given to the patients.

From the early period of British occupation, official records are full of references to the unhealthiest of its climate. D.F. Carmichael has observed that "there is scarcely a man who visits these parts who does not return with an enlarged spleen or liver, more or less affected of head, making business irksome, and with some constitutional breakdown". A new comer to the district, even after a very short stay, was being suddenly attacked by malaria, a disease most dreaded. Even by 1940, after decade of fight against malaria and other diseases with every many public health activities, the district was still considered unhealthy. "Even at the present time" writes R.C.S. Bell, "the area cannot strictly be called healthy, for malaria is endemic almost everywhere and a special allowance is paid to officials serving there who are not natives or domiciles of the region, to compensate them for the unhealthiest of the region. In early days people had a belief that the infectious diseases like small pox and cholera generally occurred due to the wrath of village deities. The inhabitants of Maliahs or the high lands, however, had their own beliefs and method of treatment. To ensure good health, the Mariah or human sacrifice before the deities was prevalent among the Khonds. No medicine was ordinarily given to the patients.

Keywords: Health; Medical sanitation; Disease; Medicine

1. Introduction

The southern part of Orissa comprising the seven districts such as Ganjam, Gajapati, Rayagada, Koraput, Nabarangpur, Malkangiri and Kandhamal is a tribal dominated region and were mostly covered with hills and forests. The people of the region especially schedule Tribes and Schedule Castes were socially, economically and culturally most backward. The people being mostly illiterate were naturally unaware of the simple principles of hygiene and sanitation. Neither any public health measures seem to have been undertaken nor any medical institution established in this part of the country before 20th century. For centuries this region was almost inaccessible mainly for two reasons. Firstly, the Ghats which separate it from the coastal plains were not easy to cross and secondly, the climate of the forest covered hilly tract lying to the west of Ghats was considered inhospitable to foreigners. The district of Ganjam came into existence with effect from 1-4-1936 after it got separated from Madras Presidency and became a part of Orissa province constituted from that date. The name 'Ganjam' means 'Granary of the World'.

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nagar and Dharakote. The important rivers of the district are Rushikulya, Badanadi, Jahada, Dhanei and Baghua. The soil of the district are mostly alluvial, black laterite, red and saline. The texture is sandy to sandy loam or clay to clay loam.

There are no systematic records regarding the public health and medical facilities of the Ganjam district in the early times. An organized system of medical and public health began in the erstwhile Madras presidency with establishment of the Indian medical Department in 1786 A.D. The department was administered by a board consisting of a physician general, a surgeon general and an Inspector of the Hospitals with a secretary attached. The local representative of the Department was the Zilla or the civil surgeon who became in 1883 the district Medical and sanitary officer. The Indian Act XXVI of 1850 and the Madras town Improvement Act, 1865 did not provide medical service in towns, but the Madras town Improvement Act, 1871 placed the responsibilities of medical relief in town in municipalities. Similar provision was also made in the Madras local Funds Act of the 1871 making the local Boards responsible for opening medical institutions in non municipal areas. This Act followed by the enactments of 1884 and 1920 brought about some perceptible changes in the nature and extent of medical facilities in the district. Improvement Act, 1865 Improvement Act, 1865 Improvement Act, 1865.

The geographical area of the district is 88070.60 Sq.Kms. Ganjam district is one of the largest populous districts (3529031 as per census) of Orissa. Ganjam district has a population of 3529031 people, the number of males is 1568305, 1557783 no. of females and 402943 no. of child. Out of the total population, SC constitutes of 647637 numbers, ST constitutes of 135248 numbers and general population constitutes 2746146 numbers. The table 1.2 describes the block wise male, female and child population in Ganjam district. The district is rich in mountains and forests, some valuable wood like Sal, Teak, and Gambhari are found in plenty in the forests. Forest products like Bamboo, Medicinal plants of various types Jhuna, Mahul, Lakha, Sal leaves influence its economy. The total forest cover is 3149.9 sq.km, the area of reserved forests is 1485.69 sq.km. Demarcated forest is 143.54 sq.km. Un-

classified forest is 0.86 sq.km, and demarcated protected forest area is 1167.36 sq.km. The district is characterized by an equitable temperature all through the year, particularly in the coastal regions. The average annual rain fall of the district is 129.60cms. The rain-fall generally increases from the coast towards the interior hilly tracks of the district. The relative humidity is high throughout the year specifically in coastal areas. Winds are fairly strong particularly in coastal regions in summer and monsoon months.

Ganjam is very rich in natural resources like abrasives and grinding materials, limestone (kankar), manganese, monazite, sand and talc. Garnetiferous granitic gneisses and charanokites are used for manufacturing of grinding stones in the district. White clay deposits are also found in different areas of the district.

2. Aims and objectives

No work has so far been attempted to present the conditions of Public Health and sanitation in Ganjam district. So the main aim and objective of the work is to discuss the various aspects of the medical and public health services combating epidemic diseases in Ganjam district. The proposed Medical Colleges in Ganjam district may be completed at an early date to provide better health facility to the people of these areas.

Medical facilities

The health seeking behavior of a large fraction of the population of the District still hovers around traditional healers like „Jaani“, „Disari“, „Beju“ and the like though due to change in awareness and availability of modern health facilities at hand the majority have turned towards modern medicine, with the intervention of different disease control programs. Though their incidence have come down the diseases like diarrhea, cholera, measles, malaria, Leprosy, Small-pox, Fever, TB still pose a threat in the District. As the mortality due to these diseases is high, specific plan and programs are allotted to the District from time to time.

Health Infrastructure Profile of Ganjam District

- Medical College: 01 MKCG Medical College & Hospital Berhampur
- Dist. HQ. Hospital: 01 (City Hospital, Berhampur)
- Sub Divisional Hospital: 02 (SDH-Chhatrapur & Bhanjanagar)
- Post Partum Centre: 06 (Aska, Bhanjanagar, Chhatrapur, City Hospital, MKCG Medical College, Christian Hospital)
- Community Health Centre: 30 (as per Govt. New Notification)
- Primary Health Centre (New): 89 (84 – Old + 05 New)
- Sub Centers: 460
- Govt. Zonal Dispensary: 01 Ankuli, Berhampur
- Major Private Hospitals: 01 (Christian / Zanana Hospital)
- Govt. Homeopathic College: 01 (Berhampur Town)
- Homeopathic Dispensary: 38
- Govt. Ayurvedic College: 01 (Ankushapur, Near to Berhampur Town)
- Ayurvedic Dispensary: 42
- Blood Bank: 02 (MKCG Medical College & SDH – Bhanjanagar)
- Registered & functional Ultrasound Clinic: 35 (01.07.2012) [Govt. Ultrasound Unit – 07, Pvt. Ultrasound Unit – 28]

Post Partum Centres:

- MKCG Medical College
- City Hospital, Berhampur
- Christian Hospital, Berhampur

- Aska Hospital, Aska
- SDH-Bhanjanagar
- SDH-Chatrapur

Post Mortem Centres:

Four Nos of Post Mortem Centers are Functioning:

1. Bhanjanagar PMC
2. Purushottampur PMC
3. Aska PMC
4. Chatrapur PMC

Blood Bank Service:

There are 2 Blood Banks in Ganjam district.

1. MKCG Medical College, Contact Number : 0680-2292534
2. SDH-Bhanjanagar, Contact Number : 06821-240133

Campus Medicine Store:

- City Hospital Berhampur- 2
- Patrapur CHC- 1
- Polosara CHC- 1
- Khalikote CHC- 1
- Kodala CHC- 1
- Chatrapur SDH- 1
- Bhatakumarada CHC- 1
- Badagada CHC- 1
- Bhanjanagar CHC- 1
- Belaguntha CHC- 1
- Gallery CHC- 1 (Renewed, but not functioning)

Ganjam Districts: Institutions, Personnel and Expenditure

According to the 1991 census Ganjam district had 7634 medical institutions. Apart from these the district had 58 MCWs, 19 MHS, 57 CWCs, 18 HCs, 59 PHSS, and 56 other medical institutions most probably those in the private sector. The micro-planning CDSA study in Ganjam district revealed that health care delivery was inadequate and that the existing PHCs, PHSCs and PFCs did not meet the population coverage norms since the number of these facilities was inadequate. The number of CHWs was also inadequate. Each PHC catered to a population, which exceeded the 30,000 population norm. At times a single PHC catered to a population which was three times the prescribed number. In 1995 the district had only 42 PHCs of out of at least the 79 required. The shortfall was as much as 37 PHCs. The CDSA survey findings also showed that the district needed at least 118 more PHCs and 253 more FPCs and nearly 4200 more CHWs. Table shows the situation in the blocks to be covered in the present study. A CDSA study carried out in 1998 showed that as far as PHCs in Naupada were concerned the four blocks of Sinapali, Naupada, Khariar and Boden faced a shortage. Thus, basic health services are unavailable and inaccessible to the population that is really in need of these services

Health Institutions and Facilities in Ganjam

1991(Hospitals)15, 1993(Hospitals) 14, 1995 (Hospitals) 14, 1997 (Hospitals) 13, 1998 (Hospitals) 13, Ayurvedic (1993) 41, Ayurvedic (1995) 38, Ayurvedic (1995) 9, Homoeopathy (1993) 36, Homoeopathy (1996) 15, Dispensaries (1991) 98, Dispensaries (1993) 13, Allopathy (1995) 42, Homoeopathy (1999) 5, No. Of Beds (1995) 1575, , No. Of Beds (1998) 1541, Allopathy, No. Of Beds (1993) 1533, Homoeopathy, No. Of Beds (1995) 10, CHCs (1993) 5', CHCs (1995) 62, CHCs (1997)10, CHCs (1998) 10 ,PHCs(1991) 61,PHCs(1993) 65,PHCs(1995) 10,PHCs(1997) 93,PHCs(1998) 98, Sub HCs(1993) 10, Sub HCs(1995)3, Medi-

cal Aid Centre(1993) 2, Rural Family Welfare Centres (1991)38 , Urban Family Welfare Centres

Water Supply And Sanitation

The sources of water supply are mainly of two types, one is piped water supply and the other is tube wells or sanitary wells. Rivers, lakes, ponds, tanks, streams and wells are the other sources of water supply. The Government focus is however on providing safe water supply through a piped water system and tube wells and sanitary wells. The former is more common in urban areas while the latter is the more common form found in rural areas.

Water Supply and Health

Remarkable progress has been made in recent years in developing and improving availability and accessibility to potable water supply sources in India. Over the years several crores of rupees have been spent on digging tube and sanitary wells, laying pipes, rebuilding ponds. Under the Rajiv Gandhi National Drinking Water Mission [RGNDWM] programme an investment of Rs. 180000 million was made in installing 3 million hand pumps and 1.16 lakh piped water supply systems [Chand, 1999]. Several rural regions of India including parts of Orissa have witnessed an expansion in the network of drinking water sources. Water shortage or scarcity has been curtailed in a large number of rural habitations. The Government of India claims that by 1999 nearly 95 per cent of the rural population had access to drinking water.[Chand, 1999]. Thus, it would appear that a high degree of adequacy in the supply of water has been met. It would, however, be incorrect to say the problem has been effectively and efficiently solved for what has been achieved is an increase in the number of bore wells or hand pumps. Is it potable? What is the quality of water? Is it contaminated? For instance, it is known that in several districts of West Bengal water provided through wells and hand pumps is contaminated with arsenic or that in the coastal regions seawater seeps into drinking water sources.

Water supply and sanitation is closely related to the health status of the people. Assuring people access to potable and quality drinking water is essential to prevent water-borne diseases that are quite common in India. In India one of the most important cause of mortality and morbidity as stated earlier is poverty and its various manifestations as seen in communicable diseases caused by the poor quality of drinking water and unhygienic sanitation. Safe drinking water along with proper sanitation has direct implications for the health of the people, their productivity and hence the quality of life they lead. In India water borne diseases such as gastroenteritis, diarrhoea, dysentery, cholera, and enteric fever are common among the people. These are caused by the presence of bacteria in drinking water. Infectious and parasitic diseases which are transmitted through the presence of pathogens in drinking water include hepatitis A and E, cholera, typhoid, cryptosporidiosis, giardiasis, amoebic dysentery, and dracunculiasis [Guinea worm]. "Agenda 21" of the UN Conference on Environment and Development [UNCED] has stated that the major hazards associated with water supplies are microbiological in nature with an estimated 80 per cent of all diseases and over one third of deaths in developing countries caused by the consumption of water. Diseases caused by microbial pathogens in drinking water affect urban slum dwellers or rural households. And the groups most at

risk are infants, young children, the sick and the elderly. India is no exception to these problems.

In India, it is not uncommon to find that water from such village sources as bore wells, hand pumps and tube wells is often contaminated as the coliform and faecal coliform counts are much above the stipulated levels. Geo-climatic factors produce a variety of obnoxious chemicals like fluoride, arsenic, nitrates and iron which find their way into drinking water sources such as wells harming the health of the users. Tap water is not always treated and chlorinated and disinfection of wells and ponds is not done on a regular basis. Few rural communities can maintain the necessary standards. Government departments are unable to undertake their responsibility for maintenance due to resource shortages. The maintenance staff is also derelict in their duties.

In addition to the biological contamination of water, chemical pollution of drinking water resources has begun to pose a serious threat to public health. Industrial waste, inadequate sewerage systems and inadequate and ineffective pollution norms and monitoring agencies have contributed no less to the deterioration in the quality of water supplied by traditional water sources such as lakes and rivers. A nation-wide survey of habitations in 1994 revealed that over 43.5 million people living in 1.42 lakh habitations were exposed to health risks due to excess fluoride, arsenic, salinity, iron and chemical pollutants such as pesticides and insecticides in drinking water sources. Thus, much more than the mere identifying and creation of water sources of immediate concern is the question of the quality and potability of the water being supplied.

Urban Water Supply

The urban bias in this programme is evident from the budget provisions made. The Orissa Government in 1995-96 made a provision of Rs 2864.00 lakh in its budget. The money was meant for urban water supply, sewerage and sanitation, survey and investigation, treatment of wastewater for prevention of pollution. The money was to be utilized mainly for prevention of sea pollution at Puri, extension of water supply to newly developed areas of Bhubaneswar, renovation of old water treatment plants and provision of gas chlorinators to prevent communicable diseases and to lay sewerage networks in the towns of Cuttack, Bhubaneswar and Bhawanipatna. The other towns to receive special attention for sewerage and drainage facilities were Sunabeda and Rourkela. Urbanization and industrialization has caused problems of water logging and for disposal of drainage and waste water but our basic concern is with the rural areas where a majority of the population lives and diseases related to unsafe water and poor sanitation are common.

Rural Water Supply

Facilities for water supply and sanitation in the rural areas identified under the centrally sponsored Minimum Needs Programme and ARWSP are an integral part of the rural development programme. The Government claims to make all possible efforts to undertake a water supply and sanitation programme to the rural areas. The programme aims at waterless hamlets including diarrhoea prone areas so as to improve the hygienic conditions and also to improve the socio-economic conditions of the people. This

included installing a large number of tube wells with I.M. II hand pumps, sinking of tube wells and piped water supply. Piped water supply does not include the provision of domestic stand posts. Indeed all drinking water is supplied through public stand posts.

The number of problem villages covered by drinking water facilities in 1988-89 was 3561 and the percentage of problem villages covered by drinking water facilities was 87.43. The number of identified problem villages for drinking water facilities in 1990-91 was 411 and in 1991-92 it was 183. In the mid 1990s the focus of the water supply coverage was shifted from village to habitation to cover the hamlets that had been left out or were likely to be left out. Around April 1997 the number of rural habitations in the state was stated to be 80,387. By the end of 1994-95, 60,199 of these habitations were provided with tube wells/ sanitary wells which in 1995-96 increased to 65,692. In April 1995 the number of habitations without supply and requiring at least one source of drinking water was 14,035 which by April 1996 had been reduced to 8540. In 1996-97 the number of habitations provided with drinking water facilities either by hand tube wells or sanitary wells was 69219. In 1995-96, 228 villages were provided with piped water supply. Outlay of Rs 46.54 crore under MNP and Rs. 45.04 under ARWSP were made for the expansion and development of rural water supply schemes in 1997-98. The target set for the same year was to complete 8200 hand pumps, 280 sanitary wells and 100-piped water supply. Also 2000 defunct hand pumps were to be replaced with new hand pumps.

The state has 19,304 villages under its Tribal Sub Plan areas. Of these nearly 17, 148 were identified as having inadequate drinking water facilities. By the end of the Seventh Five Year Plan 16,014 of these villages had been provided with drinking water. Additional 1134 tribal villages were provided with drinking water in 1990-94. According to Government estimates about 90 per cent of the total ST population of the state had been covered under the safe drinking water supply scheme by 1996-97. Findings of a study conducted around 1997-98, however, show that 3435 habitations under the Tribal Sub Plan were without safe drinking water and 1835 were partially covered. It was proposed that the end of 1998 would cover all these habitations.

Disease Common to the District

Previously the diseases peculiar to the district were chiefly malaria fevers and beriberi, rheumatism, diarrheas, dysentery, dyspepsia and skin disease. Cholera was not endemic; but existed as an imported disease from puri during ratha yatra festival. During second decade of the last century, the severity of the fever caused Ganjam town to be given up as the district headquarters.

The fever is sometimes preceded by a cold fit or ague lasting half and hours, when it is followed by the hot stage with great restlessness. Gastric irritability, and sometimes delirium take place. The hot stage lasts from to three hours, and the followed by free perspiration, which leaves the patients considerably weakened and prostrated.

The impact of science on the society and introduction of modern medical facilities have changed the situation to a great extent. Incidence of malaria, small-pox and cholera has become rare. Diseases common to the district at present are fever, dysen-

tery and filariasis. Cases of tuberculosis, various hospitals and other diseases reported for treatment in various hospitals and dispensaries are also not negligible. The tribal's in hilly regions suffer from yaws.

An account of some of the diseases prevailing in the district is given below. Fever in common with other parts of the state, people in the district suffer greatly from fever. The hilly tracts possess an unhealthy and malarial climate.

Traditional Health care facilities and medicine

Before the introduction of the western system of medicine or allopathy, as is the popularly called, Ayurvedic system of medicine had for centuries existed in this country. The vaidyas and Kabirajas practiced medicine and provided medicine to the needy in their home and sometime at their door steps. They had sound knowledge on medicinal use of plants, mostly confined to the elder people. Younger generation is ignorant about the vast medicinal resources available towards the conventional medicines. Tribal practitioners are hesitating to disclose their knowledge.

The Vaidyas and kabirajas prepared medicines by following different Ayurvedic book of talapatra like Brukhyalata Guna, Dravyaguna etc. They used following medicinal plants to cure different type of diseases.

Uses of Medicinal plants

1. Amla/Anla:-Fruits are used to cure indigestion. It also relieves cough
2. Apamaranga:-Root paste is used to relieve labour pain. The root is collected on Sunday and tied on the head for easy delivery. Chewing of fresh and cleaned root protects from toothache.
- Bela:-To cure dysentery, power of dried young fruit is taken with honey. The fresh leaves are used against diabetes.
- Sugandhi:-The root paste is useful against rheumatism, anemia and urinary disorders. Root are vomiting during pregnancy.
- Krushna chuda:-Heartwood is used in wounds, ulcers, leprosy, skin diseases and diabetes.
- Madaranga saga:-Useful in ophthalmopathy, burning sensation, dyspepsia, hemorrhoids, burns, leprosy, and other skin diseases, it is also used for bite.
- Iswara jata :-Leaves are used in diarrhoea, dysentery, abdominal pain, tuberculosis, and ulcer of mouth.
- Dandi pohola:-Plant is useful in cough, hiccup, bronchitis, asthma, diabetes, elephantiasis, ringworm, leprosy, skin hydrophobia, dyspepsia, headache, epilepsy, flatulence, skin diseases.
- Bana sorisa:-The plant is used in intestinal worms, colic, stomach upsets, cardio myopathy, diarrhea, fever and dyspepsia.
- Jai phula:-Plant used in migraine, paralysis, wounds, ulcers, constipation, flatulence, skin diseases, odontalgia, stomatitis and dysmenorrhoea.
- Gada :-Rhizome is useful in cough, cold, asthma, bronchitis, worms, leprosy and other skin diseases.
- Kala chakunda:-Leaves are useful in bone fracture, rheumatism, eszema, ringworm as an antidote to snake bite, wounds, fever and to throat infection.

Gandha chakunda:-Paste of seed with cow urine is applied on leprosy wounds daily for two month and in throat infection.

Traditional believe on mantra and puja

Tribal people residing in the Ganjam district ordinarily ascribe their diseases to evil influence of different diseases and to know the cause of disease they took the service of different traditional doctors of their community, who in their own traditional way counteract the evil effects. The following was one example of their traditional beliefs. They used different books. It is also peculiar that they used to worship these books once a year during mahastapami in dusahara by offering goat, hen pigeon and some time their own blood by cutting the finger tips to please the deity and to become successful in their profession.

3. Methodology

The modern scientific research methodology will followed to prepare the paper. The primary and secondary sources will be tapped along with field study in together information about the date establishment the dispensaries of the area. After the collection of source materials checking, cross checking and interpretation of the same will be made very meticulously. While proposing a methodology for monitoring of social inputs a three pronged approach is being proposed. An estimate of achievement vis-à-vis physical targets of expenditure, coverage and expected outputs as specified in the Annual Plans over a period of five years. This would help establish physical achievement as related to Government expenditure and norms. This will be based on published material of the Government. An assessment of quality of facilities and service delivery and also an assessment of utilization rates for the same facilities and services on the basis of primary survey. Perceptions of the user groups, delivery institutions and the research team regarding the quality, adequacy and efficiency of the services and facilities. This will also be based on primary studies conducted at village level and will help in identifying the gap between expectations and experience.

Conclusion

The need for health care and related facilities in Ganjam region is unique and typical of the area. The region is the home for different categories of people. when the tribal's mostly depend on their tradition and natural cure and are almost adverse to modern medicine the non tribals need to be taken care off by the Governmental agencies. The primitive tribes of Odisha and their health scenario present a kaleidoscopic mosaic of various communicable and non-communicable disease profiles keeping in pace with their socio-economic development. Among these there are communities who still depend primarily on hunting and food gathering as primary source of livelihood. The wide spread poverty, illiteracy, malnutrition, absence of safe drinking water and sanitary condition. Health related training module may include some of the health issues of local tribal communities and other people too. This will help the health personal to have a understanding of the tribal people and their problem. The proposed medical colleges in Ganjam district may be completed at an early date to provide better health facility to the people of these areas.

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