

CHAPTER XVI

MEDICAL AND PUBLIC HEALTH SERVICES

CLIMATE

The climate and health of different parts of the district depend on the lie of the land. The three western subdivisions of Bhubaneswar, Nayagarh and Khurda are generally dry and healthy except the marshy land near the Chilka lake and the forested areas of Banpur Mals and Ranpur Mals. The Sadar subdivision is generally unhealthy with the exception of the town of Puri which has the sea on one side and a semi-circular girdle of water-logged swamps on the other. Also certain portions to the north which are well drained are not unhealthy. In this subdivision malaria, filaria and hook-worm are endemic. Malaria was under control for some years after the second World War, but has reappeared in epidemic form.

In the past cholera took a heavy toll of life. Before the Railways came in, pilgrims came throughout the year and there being no assured water-supply, out-break of cholera was common. To treat these patients a special hospital called Cholera Hospital was started. The pilgrims going back on foot used to spread cholera all along the route. After the railways came pilgrims came in larger numbers and were also evacuated in larger numbers. That stopped spread of epidemics. The situation further improved when piped water-supply was introduced in 1935. There is now not so much danger of cholera starting and spreading.

The town of Puri being a health resort with so much of ill health round about is a miracle. It is easily explained by the height of the land which does not allow water to accumulate and the sea breeze which drives mosquitoes away. Puri has been a well-known health resort from very ancient times. The following story from the Mahabharata obviously refers to Puri.

After winning the battle of Kurukshetra the Pandavas went round India bidding farewell to friends and foes before retiring to the Himalayas. When they came up to river Baitarani hermit Lomasha met them and told them that there existed on the sea coast a Maha Bedi (big mound). Whoever mounted to the top of the mound got four arms which obviously meant that he got a strength of two men. It can be easily imagined that the reference was to the town of Puri which has also got other names to show that it is at a height. The platform on which Lord Jagannath sits to-day is called Ratna Bedi (jewelled platform). The towns of Puri and Bhubaneswar have such reputation for good health that rich people from

the neighbouring province of Bengal came in hundreds and built houses for their residence. Puri being on the sea beach was good for T. B. patients. A new tenant of a house at Puri takes good care that no T. B. patient has lived there before. The climate of the town of Puri is invigorating for a short stay. But the humid heavily saline sea air is enervating after a long period of stay.

The Puri pilgrim hospital, the first of its kind in the district, was established in 1836, and the next in the series, a dispensary at Khurda opened in 1864. Gradually other institutions were opened and until 1929 there were only fourteen hospitals and dispensaries in the district, except those of the present Nayagarh subdivision. The total bed strength of the above mentioned hospitals was 238, including 104 beds pertaining to the Puri cholera hospital.

SURVEY OF
PUBLIC
HEALTH AND
MEDICAL
FACILITIES
IN EARLY
TIMES

Prior to the establishment of these institutions there probably existed no public hospitals and dispensaries in the district. Perhaps no principles of hygiene save certain rigid religious practices were known to the people. Public health measures as known to-day did not exist. People had profound faith in the Mantras (Charms) and Hukums.

Infectious diseases like smallpox and cholera were generally attributed to the wrath of the village deities and their propitiation through various rites constituted the only measure for getting rid of them. No medicine was ordinarily given to the patient.

From remote past the Ayurvedic system was popular among the people. The Vaidyas and Kavirajas, the exponents of this system, used to carry on their profession as a family creed. Due to lack of state patronage and after the introduction of the Allopathic system their influence gradually declined.

Despite the medical facilities within easy reach, a section of the people mostly poor and uneducated, even to-day take recourse to the use of indigenous herbs and plants containing therapeutic properties, the knowledge of which is handed down to them from generation to generation.

Adhia, i.e., lying prostrate before a deity till one's wish is fulfilled, although almost extinct at present, was often taken recourse to by the patients after desperately trying various systems of medicine to get rid of an intractable disease.

It seems, until 1908, Khandapara, Daspalla and Ranpur States had but one dispensary each with indoor accommodations. But in Nayagarh there were two dispensaries. This number did not

seem to have appreciably increased till the merger of the ex-States in 1948. Nayagarh had, however, five medical institutions; two hospitals, two dispensaries and an Ayurvedic dispensary besides a few leprosy clinics just prior to its merger. The people were generally ignorant of the basic principles of sanitation. Houses were built with no arrangements for lighting and ventilation. The tanks which provided drinking water were indifferently used for all purposes.

VITAL
STATISTICS

Prior to 1965, vital statistics were collected through the Chowkidars in rural areas. In urban areas the respective Health Officers were responsible for their collection. The Chowkidar reported the events to the Thana Officers periodically for registration. On receipt of monthly figures from the Thana Officers and from the Health Officers, the District Health Officer sent the consolidated return to the Director of Health Services, Orissa.

Vital statistics were not perhaps collected systematically in the ex-State areas of Nayagarh, Khandapara, Daspalla, and Ranpur prior to their merger in 1948. Since January 1, 1952, the old system as described above was introduced in these areas.

The statistics obtained through this system were sufficiently accurate for the purpose of calculating the approximate growth of population as well as the relative healthiness and unhealthiness of different years, although little reliance could be placed on the classification of the disease to which deaths were attributed. The collection of vital statistics considerably suffered owing to the transfer of the Chowkidar to the pay roll of the Grama Panchayat as they avoided to attend, as usual, the parade at the police stations. After the abolition of the Chowkidari system in 1965, various attempts made for effective collection of the information through the Orissa Grama Panchayat Act, 1964, and the Grama Rakhi Ordinance, 1967 proved futile.

The Registration of Births and Deaths Act, 1969 (Act No. 18 of 1969) and the Orissa Registration of Births and Deaths Rules, 1970, which extended to the whole of the State of Orissa, were enforced since 1st July, 1970. The Health Officer or in his absence, the Executive Officer in the urban areas and the Thana Officer in the rural areas are appointed as the Registrars. Under these rules, the Chief District Medical Officer acts as the District Registrar while the Director of Health and Family Planning Services, Orissa, acts as the Chief Registrar. The responsibility to make reports about the births and deaths within a stipulated time devolves on the head of the house or household. The act provides for penalties of a nominal amount in a graduated scale for the period of delay or failure to report on the part of the reporting agency. Besides, different officers in charge of various institutions like hospitals,

hotels, running trains and buses etc. are also responsible to notify about the births and deaths. Specified time limit has been prescribed for submission by the Registrars of monthly returns of births and deaths both to the District Registrar and the Chief Registrar including those for an urban area with a population less than thirty thousand. But in the case of urban areas containing a population over thirty thousand, weekly and monthly returns are to be submitted directly to the Chief Registrar only. Properly worked out, the system is normally expected to yield relatively better results. But unless the importance of the statute is brought home to the rural population majority of which are illiterate, and an awareness created among them through broad publicity, the system may, not unlike the previous ones, prove abortive.

The vital statistics for eleven years from 1961 to 1971 compiled by the Director of Health and Family Planning Services, Orissa, is given in Appendix I.

The figures show how unreliable they are. Except for the three years from 1961 to 1963, the figures for the rest of the years are incomplete which is attributed to the abolition of the chowkidari system and unsatisfactory working of the subsequent systems adopted for collection of vital statistics described earlier. The rural figures for 1970 and 1971 collected through the present system are only partial and indicate that the system is not yet put to the test in full swing in the rural areas. Therefore, nothing could possibly be concluded regarding the trend of population and general standard of health from these incomplete data.

The table given in Appendix II showing the principal causes of death in the district for eleven years are likewise incomplete and offers little opportunity for any valid conclusion.

But, however, to get some idea in the matter, though not relating to the recent past, the comparative decennial figures from 1951 to 1960 between the district and the state are given below :

| State District | Cholera | Small pox | Fever | Dysentery and Diarrhoea | Respiratory diseases | Wounds and accidents | Other causes | Total |
|----------------|----------|-----------|-----------|-------------------------|----------------------|----------------------|--------------|-----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Orissa | T 34,440 | 61,978 | 1,312,573 | 1,34,096 | 72,409 | 33,547 | 6,33,498 | 22,83,514 |
| | R 34,133 | 61,208 | 1,294,381 | 1,25,833 | 67,770 | 32,608 | 5,95,442 | 22,11,375 |
| | U 307 | 1,770 | 18,192 | 8,263 | 4,639 | 939 | 38,056 | 72,116 |
| Puri | T 2,945 | 6,080 | 1,18,843 | 22,456 | 10,475 | 2,680 | 1,06,930 | 2,70,409 |
| | R 5,924 | 5,900 | 1,13,679 | 20,130 | 9,611 | 2,379 | 99,407 | 2,54,030 |
| | U 21 | 180 | 5,164 | 2,326 | 864 | 301 | 7,523 | 16,379 |

Source—Census of India, 1961, Vol. XII-Orissa, Part I-B

On the above classification, of course, little reliance can be placed as the reporting agency of the figures was the Chowkidar who, having possessed no medical knowledge, regarded fever as a general cause of death.

A comparative statement showing percentage of death from cholera, smallpox and fever is furnished below.

| | Cholera | | | Smallpox | | | Fever | | |
|--------|---------|-------|-------|----------|-------|-------|-------|-------|-------|
| | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban |
| Orissa | 1.51 | 1.54 | 0.43 | 2.76 | 2.77 | 2.45 | 57.48 | 58.53 | 25.21 |
| Puri | 1.09 | 1.15 | 0.13 | 2.25 | 2.32 | 1.10 | 43.95 | 44.75 | 35.13 |

Source—Census of India, 1961, Vol. XII-Orissa, Part-I-B

In so far as cholera, smallpox and fever are concerned the total percentage of mortality in the district is relatively lower than those of the State averages.

**DISEASE
COMMON
TO THE
DISTRICT**

Fevers, filariasis, cholera, smallpox, dysentery and diarrhoea, and skin diseases were described among the principal diseases of the district in the last Gazetteer (1929). These diseases were also commonly found in the Nayagarh subdivision as it appears from the available records (Administration Reports) prior to the merger of the ex-State. But the impact of science on the society in general, and medical science in particular, has revolutionized the situation. Incidence of malaria, smallpox and cholera which once played havoc are almost put under control. Among the diseases common at present mention may be made of T. B., dysentery and diarrhoea, typhoid, filariasis, respiratory and heart diseases, etc.

In the table furnished in Appendix III is given the number of patients of different diseases treated and died in the hospitals and dispensaries for the years 1963—1972.

Fever

Rise in the normal body temperature due to various causes is commonly termed as fever. Incidence of different kinds of fever such as malarial fever, filarial fever, enteric fever and fever due to influenza and bronchitis, etc. is not rare in the district. In the low lying lands of Puri Sadar subdivision, especially Gop police station and the territory around the Chilka lake, the incidence of fever is generally greater than the high lands of the Khurda and Nayagarh subdivisions.

Though the district is not malarious, it is not completely free from the disease. In certain parts of the district, mostly in the low lying areas suitable for breeding of mosquitoes, malaria occurs. The number of cases varies from year to year and some seasons are more malarious than others.

The principal cause of the virulent epidemic malaria during the 20th century was the wide spread water hyacinth which covered a large number of tanks and stagnant rivers. The Atharnala was so choked of water hyacinth that one could not see even one square inch of water. More than three quarters of the tank of Dandamkundapur was covered by water hyacinth. The entire tank of Kausalyaganga was covered with water hyacinth. In 1928 the Commissioner Peck started a campaign to clear water hyacinth. He made all the three District Boards of Cuttack, Puri and Balasore pass bye-laws making it a duty of the owner to keep his tanks clear up water hyacinth. If they failed, they were to be punished by daily fines. The Collectors of these three districts went round personally to implement this policy. By the end of 1930 most of the water hyacinth had been cleared. The Collector of Puri made it a duty of the village Chowkidar to keep tanks clear up water hyacinth as it has the tendency to come up rapidly.

In 1939 a severe type of malaria visited the district and the worst affected region was the country around the Chilka lake. The forest tracts of Daspalla, almost the whole of Nayagarh and the northern and western parts of Ranpur, were malarious. But due to the preventive measures taken during these days, the whole of the district is almost free from the disease excepting the occurrence of a few sporadic incidents. In the year 1971, only 58 cases of malaria were treated in all the hospitals and dispensaries of the district. Although the figures from 1963 to 1971 tended to reduce steadily, in 1972 it again seems to have given an ominous sign.

Regarding other fevers Mansfield quoted Major Waters as follows :

“Typhoid or enteric fever probably exists in Puri as in other towns, but I have never seen a case. Native practitioners tell me that it does occur, but it evidently is not common. Chicken-pox occurs occasionally in the jail and probably elsewhere. Pneumonia occurs, but is not very common, it is mostly seen amongst pilgrims or rather debilitated persons exposed to sudden and unexpected rain. Plague is unknown”. But at present, contrary to the assertion made by Major Waters, typhoid seems to be a common disease of the district. During the last few years its incidence shew a steady

upward tendency. Chicken-pox which generally infects children and is not ordinarily given medical treatment, occurs in the district in definite seasons. The remarks of Major Waters with regard to Pneumonia and Plague appear reasonable.

Falariasis

The incidence of filariasis, filarial lymphangitides and elephantiasis was very high in the past. The incidence of filariasis, even today, is abnormally high which is evident from the figures given in Appendix III, and the figures, though fluctuate from year to year, are undoubtedly on the increase. But it has, despite its fairly high degree of prevalence, definitely lost its comparative endemicity which may be attributed to the recent developments in the medical therapy. Filariasis and elephantiasis, though not fatal, almost completely sap the vitality of the patient and the latter renders him for all practical purposes, an infirm. Puri town which had once an evil reputation for these diseases has, with the improved drainage system and protected water supply, practically become immune from them.

Leprosy

The incidence of leprosy was probably not very high in the district. But nowadays lepers are found in large numbers mostly in the pilgrim places like Puri and Bhubaneswar, which are not perhaps strictly representative of the district figure. Details about the treatment and other facilities provided to them will be found in a later section of this chapter. Besides, the State Government has donated land to the extent of nearly 14 hectares in the village Janla situated by the side of the National Highway about 18 km. from Bhubaneswar to Mother Teresa, a famous lady social worker and philanthropist of international repute, for establishing a centre for the treatment and rehabilitation of the lepers. The proposed centre has been named as Gandhi Shanti Nivas.

Cholera

"For many years", P. T. Mansfield wrote in 1929, "Puri has had the evil reputation of being a focus of Cholera, and a centre from which the disease spreads to other parts of India". According to W.W. Hunter, as quoted by him, "Puri city is a hot bed of the disease. It only requires the annually recurring conditions of over-crowding, of filth, of great heat, of dampness, and sudden atmospheric changes, to turn the pilgrim city into a pest-house. The Car festival annually slays its thousands. It occurs at the most unfavourable and inclement season of the year. Before its close the rains are pretty well advanced, the roads are cut up, the rivers are full, the roadside lodging-houses are close and steamy; and often the sole shelter for travellers is under trees dripping with rain".

“The chief force of the epidemics was concentrated in the town, but thence they spread into the district, especially to the villages along the Trunk Road”. The ex-States of Khandapara and Ranpur were subjected to cholera almost annually being introduced by the pilgrims from Puri. It broke out in an epidemic form once in 3 or 4 years in Nayagarh ex-State. In 1939 mortality from cholera in the district (old) was abnormally high.

With the improvement of drainage, conservancy arrangements, installation of protected water supply, and other public health measures the incidence of cholera in these days has almost been controlled at Puri even during the great festivals. Unless a certificate of inoculation is produced at the railway station or at the road check posts, no one is allowed to enter into the town of Puri during the Car Festival. Elaborate arrangements are also made at different railway stations and bus stops for inoculating the pilgrims to Puri. This is a long standing practice and for the past so many years this arrangement has continued. In the recent past, occurrence of cholera seems to have been high in 1963 and 1968. In these years 3,671 and 2,992 cases respectively were reported. It is no longer a formidable disease as it was looked upon about fifty years back.

Smallpox was no less an epidemic disease. People used to dread it mortally. The ex-States constituting the Nayagarh subdivision were also not free from it. Smallpox

“The district”, wrote Mansfield, “is also notorious for the frequency with which epidemics of smallpox occur. In spite of the efforts made to popularise vaccination, the disease is very rife especially in the more inaccessible parts ; but the town of Puri is well protected, owing to vaccination being compulsory in the municipal area and here only sporadic cases occur”. The district was under the grip of a severe outbreak of smallpox which took a heavy toll in 1926, 1939 and 1945. That the disease has almost lost its grip on the district is well evident from the statement in Appendix III.

T. B. was perhaps not a common disease. Mansfield did not refer to it in his Gazetteer. But of late, it has become one of the principal diseases of the district. Air being the chief medium of infection, its large scale diffusion may be attributed to the present unrestricted transport system. With a view to stamping out the disease, the various measures taken up in recent days are described in a later section. Tuberculosis

According to Mansfield, “In Puri as in other districts of Orissa, the mortality due to dysentery and diarrhoea is unusually great ; in fact, the death rate in recent years has been five or six times as high Dysentery and Diarrhoea

as in other districts in the province". The high death-rate is, however, attributed by him to the infantile diarrhoea which was extraordinarily common and was the chief cause. The bad water supply, the eating of new rice as soon as it is reaped, and the general ignorance of the people were generally regarded to be the causes of these diseases. These diseases are no less common in the Nayagarh subdivision. Here it was mainly due to the use of polluted water by the people, especially during the summer days, when shortage of drinking water becomes acute.

Despite the spread of education and various public health measures undertaken at present, it is astounding that the incidence of dysentery was abnormally progressively high during the decennium 1963—72, except for a few years which is evident from the statistical statement given in Appendix III. The reasons for this high incidence may generally be ascribed to the developing habits among the people to frequent tea stalls and restaurants where sanitary and health aspects are awefully neglected.

**PUBLIC
HOSPITALS
AND
DISPENSARIES**

The Chief District Medical Officer, previously known as the Civil Surgeon, is in overall charge of the medical administration of the district. The health organisation in the past was under the District Health Officer. But in the present set up, subordinate to the Chief District Medical Officer are placed three Assistant District Medical Officers directly in charge of Medical, Public Health, and Family Planning organisations. They are assisted by the assistant surgeons and lady assistant surgeons apart from a host of other technical and non-technical staff. The Assistant District Medical Officer (Medical), besides being in charge of the District Headquarters Hospital, is directly responsible for the administrative control of all the medical institutions in the district. The Chief District Medical Officer, in addition to his supervisory responsibility, also acts as the District Registrar under the Registration of Births and Deaths Act, 1969.

In 1929 the district (old) had only eight hospitals and six dispensaries. There was also a leper asylum and a special hospital for the treatment of filariasis at Puri with 12 beds and a research laboratory attached to it. The bed strength of the hospitals totalled 238 including 104 relating to the cholera hospital, Puri. Prior to their merger in 1948, the ex-States comprising the Nayagarh subdivision had very small number of medical institutions. Nayagarh ex-State had in 1944-45 only two hospitals and two dispensaries, besides four leprosy clinics and an Ayurvedic dispensary.

There are at present as many as twenty public hospitals in the district. Of these, thirteen are located in rural areas and seven in urban areas. All the hospitals, excepting the one at Takara in Nayagarh subdivision which is under the control of Tribal and Rural Welfare Department, are managed by the Health Department. In addition, there are three special hospitals located in urban areas ; two of them are run by the State Government and the other by the Central Government. Besides, there is another hospital at Bhubaneswar managed by the Notified Area Council. Thus the total number of hospitals of all categories in the district comes to twenty-four. With the object of providing medical relief to the rural people twenty-nine Primary Health Centres, one in each of the Blocks, have been established. They may, for all practical purposes, be regarded as miniature hospitals having provision for accommodating indoor patients as well. They serve as a nucleus both for curative and preventive measures and make integrated health services available within the easy reach of the rural folk. Attached to each Primary Health Centre is a Rural Family Welfare Planning Centre. Out of the six sub-centres under each Primary Health Centre situated within the block area, three are established from the medical side and the rest three from the family planning side. But both medical and family planning services are made available from all the six sub-centres. Each sub-centre is in charge of either an auxiliary nurse-midwife or a Dai. The above staff, apart from other duties, attend to domiciliary deliveries. The medical officer of the Primary Health Centre visits the sub-centres twice a week.

The total number of beds available in the above hospitals, Primary Health Centres, and of those managed by private bodies is 1,114. Estimated according to the 1971 Census, each bed, apart from those of the Homoeopathic and Ayurvedic hospitals, serves an average population of about 2,101.

Of the forty-seven dispensaries of the district twenty-eight are located in rural areas and nineteen in urban areas. Thirty-four of these institutions are public and two are special dispensaries managed by the State Government. Of the rest eleven dispensaries, three are managed by Central Government, one by local fund, two by voluntary organisations, and five by the private bodies.

Besides the above institutions, there are also two Medical Aid Centres in the district.

Thus, there are in all 102 medical institutions, nearly six times the number existed in 1929, presuming that the ex-States had but one institution each. Divided according to the controlling agencies, the Health Department, the Tribal and Rural Welfare Department and the Labour Department of the State Government respectively manage 84, 1 and 2 institutions and the rest 15 are run by the Central Government, local authorities, and private bodies. The average number of population served by each institution is estimated at about 22,949. Among the above medical institutions there are four specialised hospitals, namely, Infectious Disease Hospital, Puri; Kamala Devi Mantri Maternity Home, Puri; Basant Manjari Swasthya Nivas, Chandpur; and T. B. Hospital, Puri. Detailed accounts relating to these institutions are given later.

In Appendix IV is given a list of hospitals, dispensaries, Primary Health Centres etc., with their location, year of establishment and bed strength etc. Detailed information relating to some of the principal medical institutions in the district are furnished below.

A charitable hospital known as Puri Pilgrim Hospital, a name presumably derived from the large number of pilgrims visiting Puri almost every day and for whose service it was apparently dedicated, was established in the year 1836. Being the first of its kind in the district it marked a transition in the sphere of traditional therapeutic systems. In 1906 some improvements were made to its building by the Government for which the public also contributed. The male surgical ward constructed in 1908 by the funds donated by Mahant Maharaj of Emar Math, Puri, was opened by His Excellency the Governor of Bengal. A four-roomed cottage was added to the hospital in 1917. In the year 1941 it was taken over by Government and was renamed as Headquarters Hospital, Puri. A significant extension to the hospital was made in 1958 with the construction of an additional building having accommodation for 60 patients. It had, in 1908, accommodation only for 40 male and 20 female patients. In keeping with the increasing demand and popularity the staff strength as well as the number of beds of the hospital increased from time to time. At present it provides accommodation for 200 patients both male and female which are distributed in the following manner:

| Name of Ward | Number of Seat |
|----------------|----------------|
| Medical | 54 |
| Surgical | 50 |
| Eye & E. N. T. | 8 |
| Emergency | 6 |
| Septic | 8 |

| | | |
|------------------|----|----|
| Cottage (paying) | .. | 4 |
| Cabin | .. | 3 |
| Gynaccology | .. | 10 |
| Labour | .. | 36 |
| Paediatric | .. | 20 |
| Treatment room | .. | 1 |

The Assistant District Medical Officer (Medical) is under the overall supervision of the Chief District Medical Officer in charge of the institution. He is assisted by as many as fourteen assistant surgeons who are allotted to different wards. The present staff of the hospital, besides the number of doctors mentioned above, constitute five pharmacists, thirty-one nurses, and thirteen other technical personnel. The hospital is mainly divided into, (1) a well equipped operation theatre, (2) a surgical ward, (3) a medical ward and (4) a labour ward. The out-patient department is held in a separate block attached to the hospital. The hospital is provided with an upgraded pathological laboratory, an X-Ray plant and a Blood Bank. Attached to it there function a dental clinic, a venereal disease clinic, an A. R. V. clinic, a filaria clinic and a leprosy clinic. Besides, a loop insertion unit also works in the hospital. For the treatment of eye disease a separate out-door has been established with an eye specialist in its charge. Although there are no specific sanctioned posts for specialists in any of the branches, many assistant surgeons with P. G. qualification are posted to the hospital. The dental clinic is in charge of a dentist.

Ambulance service is made available to the patients on payment.

Attached to the hospital is an Auxiliary Nurse and Midwifery Training centre with training facilities for fifty students in Auxiliary Nurse Midwifery Course which extends over a period of two years. Hostel accommodation is also available for the trainees.

The following table indicates the number and daily average of in and out-patients treated in the hospital during the years 1969-72.

| Year | In-door | Daily average | Out-door | Daily average |
|------|---------|---------------|----------|---------------|
| (1) | (2) | (3) | (4) | (5) |
| 1969 | 8,945 | 24 | 63,524 | 174 |
| 1970 | 9,753 | 26 | 71,530 | 196 |
| 1971 | 9,251 | 25 | 68,644 | 188 |
| 1972 | 9,858 | 27 | 73,679 | 201 |

As stated earlier, there existed at Puri town a separate cholera hospital. It was established obviously to cope with the high incidence of cholera at Puri town during the great festivals. Along with the pilgrim hospital it was taken over by the Government and placed under the control of the Civil Surgeon, Puri, in 1941. It functioned as a separate institution known as infectious disease hospital, Puri since 1947. With the integration of the T. B. and infectious disease hospitals into one institution in June, 1967, it lost its identity. The administrative control of the new institution was stripped off from the Civil Surgeon and vested with the Medical Superintendent, a post separately created and placed directly under the control of the Director of Health and Family Planning Services, Orissa.

The Capital Hospital was established in the year 1954 in Unit VI, Bhubaneswar. It started with an initial accommodation for fifty patients only. Its capacity was augmented gradually with the construction of different wards in different years. In 1962, six nursing home cabins, and in 1972 ten special cabins and a separate out-patient department were constructed. A separate building was also built within the hospital campus in the year 1967 to accommodate the Auxiliary Nurse Midwifery Training Centre and its hostel. Most of the physicians including the Chief Medical Officer are provided with quarters within the hospital compound.

The Chief Medical Officer, previously designated as the Superintendent, Capital Hospital, is in overall charge of the hospital. He is assisted by twenty-two assistant surgeons including ten lady doctors. In addition to the above staff permanently posted to the hospital, there are seven specialists concerning to Surgery, Medicine, Ear, Nose and Throat; Obstetric and Gynaecology, Pathology, Paediatric, and Ophthalmology Departments. Among the other technical staff mention may be made of five pharmacists, one assistant matron, three nursing sisters, twenty-one staff nurses, three auxiliary nurse-midwives and two Dais. The hospital provides accommodation for 137 patients.

The following table indicates ward-wise distribution of the beds:

| Ward (1) | Male (2) | Female (3) | Total (4) |
|-----------------------|-------------|---------------|--------------|
| Medical .. | 21 | .. | 21 |
| T. B. .. | .. | .. | 13 |
| Surgical .. | 29 | .. | 29 |
| Infectious Disease .. | .. | .. | 10 |
| Labour .. | .. | 17 | 17 |
| Female .. | .. | 10 | 10 |

| Ward | Male | Female | Total | |
|---------------|------|--------|-------|---|
| (1) | (2) | (3) | (4) | |
| Paediatric | .. | .. | 6 | |
| Eye | .. | .. | 4 | |
| Special cabin | .. | .. | 10 | |
| Nursing Home | .. | .. | 12 | |
| Other cabins | .. | 3 | 2 | 5 |

The hospital is provided with an X-Ray plant and a Blood Bank. The departments are well furnished with modern equipments. Attached to the hospital are, a leprosy clinic, a T. B. clinic and a family planning clinic. Facility for treatment of anti-rabic cases is available here. It has a separate pathological laboratory which functions under a specialist. The cardiology department is visited by the cardiologist of the S. C. B. Medical College Hospital, Cuttack, once a week and the dental department functions under a qualified dentist. Ambulance service is also made available to the patients.

As stated earlier an A. N. M. Training Centre is attached to the hospital since 1963.

The following figures indicate the number of in and out-patients treated in the hospital with their daily average during the last 3 years (1971-73).

| Year | No. of out-patients | | No. of in-door patients | |
|------|---------------------|---------------|-------------------------|---------------|
| | Treated | Daily average | Treated | Daily average |
| (1) | (2) | (3) | (4) | (5) |
| 1971 | 1,09,504 | 559 | 11,007 | 107 |
| 1972 | 1,39,422 | 482.5 | 11,372 | 135 |
| 1973 | 1,41,110 | 492.3 | 12,434 | 112 |

Initially started as a charitable dispensary in the year 1864, the Subdivisional Hospital, Khurda, was later converted into a hospital. In 1929 it had accommodation for twenty patients only. The management of the hospital appears to have been taken over by the Government in the year 1946.

Subdivisional
Hospital,
Khurda

The Subdivisional Medical Officer is in charge of the hospital and is assisted by two assistant surgeons, three pharmacists and two nurses. He works directly under the control and supervision of the Chief District Medical Officer, Puri.

Besides the administrative block, the hospital consists of an operation theatre, an out-patient department, a post-mortem room, a surgical ward, a labour ward, a medical ward and an infectious ward. Its total number of fifty beds is equally divided into male and female patients. The hospital is provided with an X-Ray plant and a well equipped pathological laboratory. Facility for the treatment of anti-rabic cases is also made available here. In addition, a T. B. and a leprosy clinic are attached to the hospital.

The number of in and out-patients treated in the hospital during the period 1971-74 is furnished below:

| Year (1) | Out-door (2) | In-door (3) |
|-------------|-----------------|----------------|
| 1971 | 58,294 | 17,323 |
| 1972 | 65,981 | 18,876 |
| 1973 | 1,20,974 | 18,807 |
| 1974 | 1,07,050 | 24,707 |

Subdivisional
Hospital,
Nayagarh

A dispensary with in-door accommodation was established by the ruler of Nayagarh ex-State prior to 1907 and was named Philips Dispensary. Later, perhaps in 1928, it was converted to a hospital and was designated as Sadar Hospital, Nayagarh. After the merger of the ex-State into the State of Orissa in the year 1948, it was renamed as Subdivisional Hospital. It is now under the management of a senior assistant surgeon who works under the control of the Chief District Medical Officer. The principal staff of the hospital consists of two doctors, three pharmacists, three nurses, a midwife, a laboratory assistant, a radiographer and a Dai. It provides accommodation for 60 patients (male 40 and female 20) and is chiefly divided into a medical ward, a labour ward, an operation theatre, a post-mortem room and an out-patient department. It is equipped with an X-Ray plant and a pathological laboratory. Attached to the hospital is a family planning clinic. Facility for anti-rabic treatment is also available here. The average daily in-door and out-door patients treated during the year 1972 are 7 and 108 respectively.

In the year 1895 the Municipal Dispensary, Puri, was established by the Municipality in a rented house close to the Lion Gate (of the temple of Lord Jagannath) and was known as Lion Gate dispensary. In 1941 it was shifted to its own building located at the north-eastern corner of the temple and was renamed as Municipal Dispensary. It is managed by the Puri Municipality with the staff mainly consisting of a doctor, two pharmacists, a dresser and a Dai. To deal with emergency cases the dispensary is provided with necessary accommodation for four patients. Under the Family Planning Scheme male sterilization operation is conducted here. The daily average number of patients treated in the dispensary in the year 1972 was 223.

Municipal
Dispensary,
Puri

Probably in the year 1885, a 12 bedded hospital was opened by the Puri District Board in the old Bhubaneswar area near the Lingaraj temple. The control and management of the hospital were transferred to the Notified Area Council, Bhubaneswar, in the year 1959. Previously there was no separate accommodation for the in and out-patients, but at present there are different blocks for different wards, two of which are constructed by the Notified Area Council with donations received from two local contractors. A separate operation theatre, a compounding room and a waiting room for patients are attached to the hospital. The administration of the hospital is controlled by the Chief District Medical Officer, Puri. The staff mainly constitute a medical officer, a lady assistant surgeon, one honorary doctor, two honorary lady doctors, two pharmacists, one medical technician, one staff nurse, three auxiliary nurse midwives and one Dai. It provides accommodation for 44 patients. These beds are allotted as follows; cabin 3, surgical ward 8, medical ward 14 (male and female 7 each), children ward 6, labour ward 9 and infectious ward (a separate block) 4. During the year 1972 the number of in and out-patients treated in the hospital was 15,716 and 56,422 respectively. In addition, 698 labour cases were also handled in the same year.

Notified
Area Council
Hospital,
Bhubane-
shwar

The Kamala Devi Mantri Maternity Home was established in the year 1953 near the Puri Railway Station and was named after Kamala Devi Mantri who donated the entire hospital building along with some staff quarters. It is exclusively meant for maternity cases which is well indicated by its name.

Kamala
Devi Mantri
Maternity
Home,
Puri

Under the supervision of the Chief District Medical Officer, Puri, the management of the hospital is carried on by a lady assistant surgeon. She is assisted by a staff nurse, a pharmacist, two auxiliary nurse midwives and other non-technical staff.

It is a small hospital having only 16 beds. The beds are classified as general—12, and cabin—4, the latter being paying beds.

The following table shows the year-wise number of patients treated in the hospital during the last 5 years:

| Patients treated | 1968 | 1969 | 1970 | 1971 | 1972 |
|---|-------|-------|--------|-------|-------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| Out-door (both old and new cases) | 7,981 | 8,864 | 10,268 | 7,073 | 5,892 |
| In-door .. | 6,056 | 8,062 | 7,371 | 9,431 | 7,110 |
| Daily average number of patients admitted into the hospital | 16 | 21 | 20 | 26 | 19 |

Basant
Manjari
Swasthya
Nibas,
Chandpur

In the year 1954, a registered society called the Orissa T. B. and Cancer Hospitals Fund Society was created under the initiative and chairmanship of Basant Manjari Devi (the Raj-mata of Ranpur ex-State), the then Minister of Health, Orissa, which consisted of eight official and non-official members. The objective of the society was to construct a hospital with 500 beds for T. B. and 100 beds for cancer patients. Dr. Harekrushna Mahatab was its president. The foundation stone of the Swasthya Nibas was laid on the 26th October, 1955 by Basant Manjari Devi and it was opened by Dr. Harekrushna Mahatab, the then Chief Minister of Orissa, on the 27th February 1958. So far, accommodation for only 200 T. B. patients has been made in the hospital and much yet remains for the society to fully realise its aim.

The first donation of rupees twenty thousand for the institution was received from Pandit Jawaharlal Nehru, the then Prime Minister of India.

The institution is under the management of the State Government with the Director of Health and Family Planning Services, Orissa, as its controlling authority. It is directly under the charge of a Medical Superintendent who is assisted by five assistant surgeons. The total strength of the hospital staff, both technical and non-technical, is 108. The beds are divided into the following two categories:

| | Male | Female | Total |
|---|------|--------|-------|
| Paying beds at the rate of Rs. 2 per day .. | 60 | 20 | 80 |
| Free beds .. | 80 | 40 | 120 |

The Swasthya Nibas has practically all the facilities for the treatment of Tuberculosis except the surgical treatment. It is provided with a well equipped X-Ray Plant and a laboratory. Under the supervision of the Superintendent, the assistant surgeons are entrusted with the treatment of the patients. The patients are admitted directly into the paying beds on payment of rupees two per day, but the cases referred by the District T. B. Officers, Chief District Medical Officers, Chief Medical Officers, and the Medical Colleges are usually admitted to the free beds. The free beds are also allotted to the paying patients on request. The admission is made strictly according to a set of rules framed for the management of the institution. Free ambulance service is made available to all the patients from the nearest railway station Kalupara Ghat, which is at a distance of 6 km. from the hospital.

The patients are accommodated in nine separate wards each of which is provided with a recreation room. Facilities of in-door games, newspapers, periodicals and library are available in the recreation room for the patients. The patients have a welfare club and occasionally they meet to discuss about the well-being of the patients as well as the hospital. Each ward is supplied with a radio too. The institution is also in possession of a 16 mm. cinema projector and film shows are arranged for the patients twice or thrice a month to alleviate their monotony. The hospital has its own arrangements for the supply of pipe water to the hospital and to the staff quarters. The patients are supplied diet at the rate of rupees two per day.

The hospital buildings and the staff quarters are provided with electricity. Adjacent to the Swasthya Nibas, a separate fifty-two bedded ward is also constructed by the Jail Department for the treatment of prisoners suffering from T. B.

The following is the number of patients treated in the hospital during the period 1968—72.

| Year (1) | Patients treated (2) | Cured (3) | Died (4) | Discharged otherwise (5) |
|-------------|----------------------------|--------------|-------------|--------------------------------|
| 1968 | 623 | 300 | 31 | .. |
| 1969 | 909 | 711 | 27 | .. |
| 1970 | 701 | 629 | 38 | 59 |
| 1971 | 767 | 767 | 31 | 64 |
| 1972 | 1,103 | 591 | 27 | 125 |

A sum of rupees 5.72 lakhs was provided for the management of the Swasthya Nibas during the year 1972-73.

T. B. and
Infectious
Diseases
Hospital,
Puri

The old Cholera Hospital at Puri was reorganised and renamed as the Infectious Disease Hospital in the year 1947 with an accommodation for fifty in-door patients. With the combination of the fifty bedded (40 males and 10 females) T. B. hospital with it on the 1st March, 1964, its bed strength was reduced to thirty-three. Again on November 1, 1970, twenty five isolation beds were added to the T. B. hospital wherefore its composite bed strength rose to 75. These two institutions were, until June 24, 1967, under the administrative control of the Civil Surgeon, Puri. Thereafter, a senior medical officer, normally drafted from among the specialists in T. B. with the official designation of Medical Superintendent, has been in charge of the institution under the direct supervision of the Director of Health and Family Planning Services, Orissa. He is assisted by five assistant surgeons; one attached to the T. B. hospital, two to the Isolation Unit, and the rest two to the Infectious Disease Hospital. Among the other technical staff may be mentioned, nursing sister 1, staff nurse 12, and pharmacists 3.

Apart from the in-door accommodation there exists an out-patient department. The institution depends for the X-Ray and Blood Bank services on the nearby District Headquarters Hospital. It is likely to be provided with a separate X-Ray plant shortly. Facilities for the treatment of gastroenteritis, bacillary dysentery, typhus, diphtheria, enteric fever, chicken-pox, hydrophobia, cholera, amebic dysentery, syphilis, measles etc. are provided in the Infectious Disease Hospital.

The following table furnishes the statistics relating to the number of in and out-patients treated in these hospitals during the period 1968-72:

| Year | T. B. Hospital | | I. D. Hospital | | Out-patient department | |
|------|----------------|-----------|----------------|-----------|------------------------|--------|
| | No. admitted | No. death | No. admitted | No. death | No. attended | |
| (1) | (2) | (3) | (4) | (5) | (6) | |
| 1968 | .. | 206 | 21 | 1,107 | 121 | 6,170 |
| 1969 | .. | 210 | 23 | 1,289 | 111 | 6,639 |
| 1970 | .. | 270 | 23 | 1,273 | 105 | 14,602 |
| 1971 | .. | 267 | 22 | 1,298 | 102 | 24,742 |
| 1972 | .. | 276 | 31 | 1,311 | 105 | 30,247 |

The Ayurvedic and the Homoeopathic systems have, under the patronage of the State Government, made fairly a significant stride in the district in recent years. For the development of these systems a separate organisation was started at the State level, and later, since September 1, 1972 a Directorate was created. All the institutions are directly managed by the Director of Ayurvedic and Homoeopathic medicines, Orissa, Bhubaneswar.

Ayurvedic and Homoeopathic institutions

As stated earlier, Ayurvedic system of medicine has been in existence in the district from remote past. The system, at the hands of private practitioners, could not flourish appreciably well in the past. But during the last few years, under State patronage, considerable developments have been made in this field. So far, as many as twenty Ayurvedic institutions, two hospitals and eighteen dispensaries have been established in the district. Of the two hospitals, one is located at Puri and the other at Bhubaneswar. A detailed account of these hospitals is given separately below.

Ayurvedic Institutions

The Ayurvedic Hospital, Bhubaneswar, is under the direct management of a physician designated as Deputy Superintendent who is assisted by two other medical officers. Besides, among other principal staff, are two pharmacists and three auxiliary nurse-midwives. It was opened in 1971 with an indoor accommodation for thirty patients which is likely to be augmented by twenty more beds during the Fifth Plan period (1974—79).

Government Ayurvedic Hospital, Bhubaneswar

The following table gives the yearwise figures of in and out-patients treated in the hospital during 1971 to 1974.

| Year | In-door | Out-door | Year | In-door | Out-door |
|------|---------|----------|------|---------|----------|
| 1971 | 3,742 | 17,332 | 1973 | 2,656 | 27,323 |
| 1972 | 7,806 | 24,405 | 1974 | 7,593 | 35,652 |

Attached to the Gopabandhu Ayurved Mahavidyalaya, Puri, there is a hospital with an initial accommodation for twenty patients. It was established in 1950 with a view to provide practical training facilities for the students of the college as well as to make Ayurvedic treatment available to the public. In keeping with the popular demand, the indoor accommodation of the hospital was increased from time to time which went up to 80 in 1968. It is likely to be augmented by twenty more beds during the Fifth Plan period. These beds are equally divided between the male and female patients. The internal administration of the hospital is vested with the Principal, Gopabandhu Ayurveda Mahavidyalaya. The technical staff of the hospital constitute one part-time Deputy Superintendent, two house physicians, one Kaviraj, one pharmacist, three staff nurses, one mid-wife and five compounders.

Gopabandhu Ayurvedic Hospital, Puri

The hospital provides treatment for all types of medical cases purely on Ayurvedic lines. Majority of the cases seeking medical aid in this hospital are chronic patients. There is no separate provision for the treatment of infectious diseases. The Panch Karma Therapy, one of the very important methods of treatment in Ayurveda, is made available in this institution. The medicine used in this hospital is generally prepared in the pharmacy attached to the college. It is also provided with an out-patient department.

The following table gives the number of in and out-patients treated with their daily average during the period from 1968 to 1972.

| Year | In-door | | Out-door | |
|------|---------|---------------|----------|---------------|
| | Number | Daily average | Number | Daily average |
| (1) | (2) | (3) | (4) | (5) |
| 1968 | 17,547 | 48 | 44,230 | 121 |
| 1969 | 18,686 | 51 | 30,684 | 84 |
| 1970 | 21,127 | 59 | 37,614 | 104 |
| 1971 | 19,158 | 52 | 27,469 | 75 |
| 1972 | 17,235 | 47 | 25,294 | 69 |

Ayurvedic
Dispensary

The location and the year of establishment of the eighteen Ayurvedic dispensaries are furnished below. Each of these dispensaries is kept under the management of a Kaviraj.

| Location | Year of establishment | Patients treated in 1974 |
|---|-----------------------|--------------------------|
| (1) | (2) | (3) |
| Government Ayurvedic Dispensary, Bhubaneswar. | 1968 | 6,864 |
| Balugaon | .. Not available | 6,000 |
| Banigochha | .. 1936 | 9,000 |
| Bhusandpur | .. Not available | 10,000 |
| Godipada | .. 1944 | 6,853 |
| Junci | .. Not available | 7,562 |
| Koska | .. 1974 | 7,363 |

| (1) | (2) | (3) |
|------------------|------------------|--------|
| Kapileswarpur | .. Not available | 6,911 |
| Nachuni | .. Ditto | 9,792 |
| Sripurusottampur | .. Ditto | 5,993 |
| Samantarapur | .. 1966 | 12,833 |
| Trilochanpur | .. 1972 | 5,429 |
| Nagpur | .. 1972 | 7,569 |
| Tapoban | .. 1972 | 4,957 |
| Patsundarpur | .. 1972 | 6,389 |
| Bhuban | .. 1972 | 8,942 |
| Karamala | .. 1966 | 6,896 |
| Naraharipur | .. 1969 | 7,832 |

Prior to the establishment of the regular public institutions there functioned a good number of private homoeopathic clinics in the district. Unlike the Ayurvedic system it has but a very recent origin.

Homoeo-
pathic
Institutions

In the year 1945, the Krushnapriya Homoeopathic Dispensary was established at Nayagarh by the ex-Ruler. With the merger of the Nayagarh ex-State, it was taken over by the State Government in 1948. The dispensary was an established institution with its own building and a set of quarters for the medical officers. This is one of the reputed institutions in the State rendering medical aid to a daily average of about 200 patients and has gained much popularity.

In Unit II at Bhubaneshwar, the Homoeopathic Dispensary No. 1 was opened in 1965. As the number of patients there became unwieldy, Dispensary No.2 was opened in 1967 and was attached to the earlier one. After the establishment of a Homoeopathic hospital in Unit III, Kharabelanagar, both the dispensaries were shifted to the new hospital building. They are likely to be removed to other Units soon.

With a view to cater to the growing popular need for homoeopathic treatment, two more dispensaries in rural areas, one at Belapara and the other at Biruda, were established in 1970-71. In the following year seven more dispensaries were also opened at Manijang, Erabang, Prataprudrapur, Bhataswar, Ekiri, Satapatna and Edbans. Thus the present number of homoeopathic institutions in the district amounts to thirteen including the hospital at Bhubaneshwar. One medical officer and a distributor chiefly constitute the dispensary staff.

Given below is a detailed account of the only Homoeopathic Hospital of the district located at Bhubaneswar. Information regarding the Homoeopathic College at Bhubaneswar will be found in Chapter XV.

Government
Homoeo-
pathic,
Hospital,
Bhubane-
shwar

The Government Homoeopathic Hospital was established in Unit III, Kharabelanagar, Bhubaneswar, in the year 1970. Earlier, since 1968 only the out-patient Department was functioning there.

The Superintendent is the administrative head of the institution. He is directly responsible to the Director of Ayurvedic and Homoeopathic Medicines, Orissa, Bhubaneswar.

The hospital has accommodation for twenty-four male and six female patients only and its principal staff constitute two Medical Officers, four Auxiliary Nurse-Midwives and three Distributors.

The following figures indicate the number of patients (old and new) treated in the hospital during the last three years:

| Year (1) | Out-door (2) | In-door (3) |
|-------------|-----------------|----------------|
| 1971 | 1,90,841 | 3,222 |
| 1972 | 1,86,052 | 3,668 |
| 1973 | 1,59,544 | 4,878 |

The hospital is attached to the Government Homoeopathic College for teaching purpose. With a view partly to increase in-door facilities and partly to facilitate the introduction of post-graduate courses at the Homoeopathic College it is proposed to augment the bed strength from 30 to 100 during the Fifth Plan Period (1974—79) at a total cost of Rs. 8.50 lakhs.

Maternity
and Child
Welfare

There are as many as eight Maternity and Child Welfare Centres in the district. They are located at Puri, Nimapara, Khurda, Ranpur, Tangi, Bhubaneswar, Khandapara and Daspalla. The two last named centres are managed by the Tribal and Rural Welfare Department, while the other centres are managed by the Health Department. Besides the above centres, the rural areas are also covered by the sub-centres.

Subordinate to the Chief District Medical Officer, the Assistant District Medical Officer (Family Planning) is directly responsible for the proper management of these centres. He is assisted, at the Block level, by the Medical Officer in charge of the Primary Health Centre, the Lady Health Visitor, and the Auxiliary Nurse-Midwives. The sub-centre is managed by an Auxiliary Nurse-Midwife only.

The services offered to the public through these centres may be enumerated as (1) Antenatal, (2) Intranatal, (3) Post-natal, (4) Infant, (5) Toddler, (6) Immunisation of the pre-school children against Diphtheria, Polio and Titanus, (7) Immunisation of the expectant mothers against Titanus, and (8) Prophylaxis against nutritional anaemia to mothers and children.

These services are rendered in two ways, clinical and domiciliary. The expectant mothers who visit the centre are examined by the doctor and given proper treatment and advice. Complicated cases are usually referred to the specialists in the District Headquarters Hospital. Post-natal cases are also examined and treated. So also are the cases with the infant and children under five years. The expectant mother, infant and children are immunised against certain specific diseases. In some centres the CARE Feeding Programme is executed. Apart from the above services, the patients are also imparted talks on health education and the utility of Family Planning. On the other hand, the staff of the main as well as the sub-centres also visit from house to house, examine the expectant mothers, post-natal mothers, infants and children below five years. The mothers are provided with Folifar tablets and are instructed how to bring up their children under hygienic methods. The utility and necessity for adopting family planning methods and to contact the clinic regularly are highlighted to them. The staff also conduct delivery at home. The difficult cases are brought to the hospital in which case they do a great deal of service to the family.

There exists, besides the Government institutions, a large number of private dispensaries and clinics of different schools of medicine. No records of them are, however, available to indicate their actual numbers in the district. But their number is undoubtedly on the increase which may be attributed partly to the popular demand and partly to the impact of unemployment on the society. In the urban areas the allopathic practitioners are generally seen in large numbers while the Homoeopathic and Ayurvedic practitioners are more or less equally distributed both in the urban and the rural areas. The poorer classes generally prefer Homoeopathic system as it is comparatively less expensive.

PRIVATE
HOSPITALS
AND
NURSING
HOMES

Swargadwara
Hospital,
Puri

Among the private hospitals mention may be made of the Swargadwar Hospital, Puri. It started as a charitable dispensary and was later upgraded to a hospital. It is housed in a two storied building near Swargadwara on the sea coast. Its resources comprise chiefly the grants and aids from Government and non-Government organisations.

The hospital affords free medical advice and treatment. It is provided with an X-Ray plant and a clinical laboratory. It provides accommodation for 22 patients; (20 surgical and 2 maternity cases). A Family Welfare Planning Clinic and a Leprosy Clinic are attached to it. Treatment of ophthalmic cases are also undertaken. In addition, various other activities like distribution of Polio vaccine and milk powder, etc., are also carried out.

The number of in and out-patients treated in the hospital in 1972 were 141 and 21,750 respectively. In the same year 20 obstetric cases were also dealt with.

MEDICAL
AND PUBLIC
HEALTH
RESEARCH
CENTRES

Regional
Research
Institute
(Ayurveda)

The Regional Research Institute (Ayurveda) was established at Bhubaneshwar in March, 1972 by the Central Council for Research in Indian Medicine and Homoeopathy, New Delhi. It is housed, at present, in the four blocks of Khadi and Village Industries Board, Udyogpuri, provided by the Government of Orissa. Finding out improved but cheap varieties of preventive and curative remedies, providing training facilities for the technical personnel working in various research units under the council, doing research on various clinical problems and on special therapies, assessing the efficacy of the folk medicines constitute the principal objectives of the organisation. The three branches of the Institute are the Clinical Research Unit, the Mobile Clinical Research Unit, and the Survey of Medicinal Plants Unit. The research units formerly attached to the Gopabandhu Ayurvedic College, Ayurvedic Hospital and the office of the Divisional Forest Officer, Balangir, have been merged with this institute.

The Survey of Medicinal Plants Unit, and the Mobile Clinical Research Unit have their special fields of activities. The former mainly deals with the collection of herbarium seeds, medicinal plants, green specimens, seeds and other plants material, etc., for investigation and pharmaceutical work; materials having medicinal properties belonging to the mineral and animal kingdom; and assessment of the distribution and extent of availability of indigenous medicinal plants and those enumerated in various treatises. The latter chiefly seeks to study the nature and frequency of the prevalent diseases, and the standard and types of treatment available in the rural areas. It

maintains contact with the village Vaidyas and evaluates their contribution, studies and creates ways and means for the prevention of diseases, studies the relation between the food habit and the incidence of the disease, assists family planning research units, collects folk lore claims and makes general survey of medicinal plants.

The present special research subjects of the institute are, (i) Kreemi (worms), (ii) Vichrchika (Eczema), (iii) Ama-ati-Sara (Dysentery), (iv) Pakshaghata (Paralysis), (v) Parinam Shula (Renal colic), (vi) Amlapitta (Hyperacidity), (vii) Sweta Pradara (Leucorrhoea), and (viii) Slheepada (Elephantiasis).

The officer in-charge, its administrative head, looks after the smooth management of the organisation. There are under him, for the research activities, besides other non-technical staff, one Research Officer, one Survey Officer, four Assistant Research Officers (one male, two females and one Pathologist) and one Research Assistant.

The institute also maintains a hospital with out-door and in-door facilities. In the hospital there is one sister in-charge, four staff nurses, three compounders and a dresser. The hospital provides accommodation for 25 patients (male 20, and female 5). The patients admitted into the hospital are provided with free treatment including lodging and boarding. In the out-door, medicines are supplied free of charge. Since the inception of the institute up to the end of September, 1973, 25,852 out-door and 210 in-door patients received treatment in the hospital.

On the 14th November, 1975, a Filaria Research Center was opened at Puri. The Centre is attached to the District Headquarters Hospital. Filaria
Research
Centre, Puri

The Family Planning as a health programme was launched in the year 1956 with certain limited objectives and was mostly confined to the urban areas. Gradually the programme was reinforced with the introduction of new schemes namely sterilisation, I. U. C. D., mass media and educational activities, personnel training and orientation of community leaders, and was extended to the rural areas. By now, a net work of Family Planning Organisations cover the entire district. Family
Planning

There are, at present, a District Family Planning Bureau, established in 1964-65 at Puri; twenty-nine Rural Family Welfare Planning Centres covering all the Blocks, and eighty-seven Family Planning sub-centres in the district. Of the six Urban Family Planning centres two are functioning at Bhubaneswar under the control of the Chief Medical

Officer, Capital Hospital; and the rest four are located at Puri, Sakhi-gopal, Khurda and Nayagarh. Besides, attached to the Bureau, are a Mobile Sterilisation Unit and an I. U. C. D. Unit. In the private sector one such centre functions in the charitable dispensary located at Swargadwara, Puri. The rural centres are mostly attached to the Primary Health Centres while the urban centres are attached to the district or subdivisional hospitals. In addition to these specialised centres, family planning services are also available in most of the hospitals and dispensaries.

Under the overall supervision of the Chief District Medical Officer, the Assistant District Medical Officer (Family Planning), formerly designated as District Family Planning Medical Officer, is directly responsible for the implementation of the Programme involving planning, supervision, evaluation and services. He is assisted by a host of other staff posted in all categories of Family Planning institutions according to the Government of India staffing pattern. In the District Family Planning Bureau the administrative officer is responsible for its general administration, and the Mass Education and Information officer co-ordinates the Mass Education Programme with the help of the concerned organisations and supervises the work of Extension Educators. There are two, a male and a female, District Extension Educators who provide for inservice training of the Block Family Planning Extension Educators, help the Block workers solve their difficulties regarding implementation of the programme and are responsible for the efficient supply of contraceptives. The Statistical Investigator compiles different reports and returns, assesses the impact and achievement of the programme, organises training for all the computers and supervises their work and guides them on field visits. The Mobile sterilisation and I. U. C. D. Units are respectively under the charge of an Assistant Surgeon and a Lady Assistant Surgeon who work according to a monthly phased programme and give follow up service to the cases developing complications. Besides, there are several other technical and non-technical personnel attached to the Bureau. Each of the urban Family Planning centres is provided with an Assistant Surgeon (male), a Lady Assistant Surgeon, two Extension Educators (Male and female) and two field workers (male and female). The principal staff in a rural Family Planning Organisation consist of an Assistant Surgeon, a Block Extension Educator, a Lady Health Visitor and two field workers (male and female). The sub-centres are suitably staffed, and devote themselves, apart from the family planning work, to maternal and child health.

For the Family Planning message to reach the remote corners of the district, mass media and extension approach have been accepted as the proper vehicles. The agricultural off seasons are selected for intensive service activities as the majority of the people live in the villages who, owing to their educational and cultural backwardness, seldom approach the Family Planning Centres for advice although they no less feel the imperative need for spacing or limitation. The services of the Audio Visual Team attached to the District Family Planning Bureau are utilised in educating the rural folk for the acceptance of the small family norm. Besides, various other steps are being undertaken to popularise the Programme of Family Planning among the rural and the urban people.

The I. U. C. D. insertion is made at the Block level and through the mobile unit follow up services are rendered to the beneficiaries and complicated cases are referred to the consultant gynaecologists for advice and treatment. Facility for sterilisation operation is also made available both at camps and clinics. Of the two methods the latter seems to be relatively more popular. The recanalisation facility available in medical college hospitals goes further in raising popular faith in sterilisation operation. Financial benefits like compensation for loss of wages and transport charges are given to those who undergo vasectomy or sterilisation operation. The Government employees who accept these methods are provided with the services free of cost, and leave of absence from duty for six working days in addition to the financial benefit. The Tubectomy method is available only in District Headquarters Hospital and Subdivisional Hospitals. Those undergoing this operation are given free hospitalisation facilities and treatment. The Government servants taking to this operation are allowed special casual leave for 14 days. Every woman accepting this method is compensated for loss of wages and is also allowed diet and transport charges.

Nirodh and other conventional contraceptives are supplied to the persons needing them regularly through the clinics and during the field services. The commercial distribution of *nirodh* has been taken up by M/S. Lipton Tea Co.

Till the end of February, 1973, about 54,791 couples were brought under the carapace of Family Planning. The details of sterilisation operation and I. U. C. D. insertion made till the above date are as follows:—

| | Male | Female |
|-------------------------|--------|--------|
| Sterilisation operation | 54,177 | 614 |
| I. U. C. D. insertion | .. | 21,458 |

The number of different types of contraceptives distributed during the period from 1964-65 to the end of February, 1973 through the Government agencies is furnished below.

| Category | Number distributed | Number of beneficiaries |
|----------------------|--------------------|-------------------------|
| Diaphragm | 411 | 347 |
| Foam Tabs. and Tubes | 86,213 | 24,699 |
| Nirodh | 23,93,119 | 1,91,494 |
| Jelly and Cream | 34,093 | 27,762 |
| Applicators | 6,513 | 6,389 |

The following table will indicate the educational activities and publicity made in the district during the period 1964-73.

| Seminar | Exhibition | Mass meeting | Film shows | Drama | Das-kathia | Palla | Group discussions |
|---------|------------|--------------|------------|-------|------------|-------|-------------------|
| 164 | 354 | 10,936 | 950 | 72 | 294 | 75 | 87,004 |

Since December 1968, an Oral Contraceptive Pilot Project is functioning at the Urban Family Planning Centre attached to the Kamala Devi Mantri Maternity Home, Puri. Till the end of 1972-73, 942 females willing to accept the scheme were registered and 214 were using the contraceptive pills.

There existed, at different times, different organisational patterns for the maintenance of Public Health and Sanitation in the district. At present subordinate to the Chief District Medical Officer, the Assistant District Medical Officer (Public Health) is directly in charge of the organisation. The sanitation of Puri Municipality and Bhubaneswar Notified Area Council is managed by the Health Officers posted by the Government. But in other Notified Area Councils like Khurda, Nayagarh, Pipli, Jatni and Nimapara, the Sanitary Inspector acts as the Health Officer. These officers are responsible to and work under the Assistant District Medical Officer (P. H.). Separate conservancy staff are maintained by the respective Municipalities and Notified Area Councils.

During the car festival, when an immense crowd of people gather at Puri and pose grave sanitary problems, temporary additional arrangements are usually made. The government and the local authorities take adequate measures to ameliorate, as far as possible, the condition of the pilgrims and to prevent the outbreak of epidemics. For this purpose extra scavengers are engaged, inoculation is made compulsory, temporary tenements and latrines are erected for the pilgrims and various ancillary measures are taken. There has been a great improvement in the sanitation of Puri town since the last edition of the Gazetteer of Puri was published (1929). An elaborate and interesting account of the sanitary measures taken during the last Govindadwadashi Mela held at Puri on the 27th February, 1961 is furnished in Appendix V.

In rural areas, under the supervision of the Assistant District Medical Officer (P. H.), the medical officer of the Primary Health Centre is in charge of the sanitation. He is assisted by three Sanitary Inspectors, one for taking preventive measures, the other for cholera and the third for the smallpox eradication programme. The other workers subordinate to them respectively are the Disinfectors, special Cholera Workers and Vaccinators. With the help of the above staff the medical officer looks to the healthy and sanitary conditions in the area under him. Besides, under various health schemes and programmes are working, both in rural and urban areas, different categories of public health staff who are no less responsible for the maintenance of health and sanitation of the district.

With the object of improving and maintaining the health and sanitary conditions of the district various organisations are at work. Their activities may be broadly divided into three categories, such as, prevention and control of chief but communicable diseases, providing protected water supply and drainage systems, and other miscellaneous functions like slum clearance, health education, etc. Brief accounts of these schemes are as follows :

Activities of
Health and
Sanitary
Organisations

Under the Cholera Control Programme are engaged as many as 57 sanitary inspectors and 42 disinfectors in the entire district. Normally they supervise regular chlorination of wells and other drinking and domestic water sources; ensure surveillance over outbreak of cholera in the villages, inoculation of the vulnerable groups of population as a remedial measure against cholera and gastro enteritis, and look to the health education of the masses. They also collect stool samples where outbreak of cholera is suspected and take precautionary measures sufficiently ahead of the congregations made on account of big fairs and festivals.

Cholera
Control
Programme

Puri town bore the stigma of having been, for many years, a focal point of cholera. A special Cholera Control Programme is, therefore, in operation in the district since the 4th Five Year Plan (1969—74). It has so far covered 23 out of the 29 N. E. S. Blocks. Of the 23 Blocks, 10 are entered into malaria maintenance and the rest 13 are in malaria non-maintenance phase. Each of the former Blocks is provided with only 2 special cholera workers while the latter with one cholera supervisor of the rank of sanitary inspector and 4 special cholera workers. The cholera supervisor, besides supervising the work of the special cholera workers, carries out the anti-cholera inoculation programme. In the field, especially during cholera season, he also collects stool samples of the suspected cholera cases and personally investigates every diarrhoea and gastro enteritis cases. Suitable remedial measures during the outbreak of cholera are also undertaken by him.

The special cholera workers are entrusted with a host of routine duties connected with the programme. They have to perform specified functions during, after and before the onset of the cholera season. The following table will indicate the achievements made under this programme during the period 1969—73.

| Year | Anti-cholera inoculation performed (in lakhs) | Chlorination of water sources | Disinfection of houses |
|------|---|-------------------------------|------------------------|
| (1) | (2) | (3) | (4) |
| 1969 | 10.57 | 46,210 | 2,560 |
| 1970 | 4.94 | 21,016 | 224 |
| 1971 | 7.70 | 39,801 | 439 |
| 1972 | 9.05 | 33,243 | 1,154 |
| 1973 | 9.15 | 61,710 | 760 |

National
Smallpox
Eradication
Programme

Not unlike other public health programmes, the Assistant District Medical Officer (P. H.) is directly in charge of the execution of the National Smallpox Eradication Programme. He works under the control and supervision of the Chief District Medical Officer, Puri. There are in the district four Para Medical Assistants who with the co-operation of the medical officers of the Primary Health Centres, the Municipality and the Notified Area Councils supervise the performance of the programme in respect of seven Blocks each. The Medical Officer of the Primary Health

Centre executes the programme in the area under his jurisdiction. The area covered by each of the 29 Primary Health Centres of the district is divided into two circles and four zones. In each zone is posted a vaccinator and in each circle there is one sanitary Inspector. The latter supervises the work of the vaccinators and the Basic Health Workers in addition to other public health activities. The Basic Health Worker does the work of vaccination in addition to his surveillance work under the National Malaria Eradication Programme.

The services of the Mobile Squad consisting of five vaccinators maintained at the headquarters in addition to the normal staff are utilised at the most vulnerable places and also at the time of the outbreak of the epidemic. In the urban areas, the Health Officers are responsible to execute the programme with the help of the sanitary inspectors, vaccinators and the basic health workers.

In the following table is given the figures of primary vaccination and re-vaccination performed during the years 1969—73.

| Year | Vaccination performed | | |
|-----------------------|-----------------------|----------------|----------|
| | Primary | Re-vaccination | Total |
| (1) | (2) | (3) | (4) |
| 1969 | 89,924 | 1,89,770 | 2,79,694 |
| 1970 | 81,154 | 2,33,421 | 3,14,575 |
| 1971 | 1,24,202 | 5,24,846 | 6,49,048 |
| 1972 | 1,08,345 | 5,89,157 | 6,97,502 |
| 1973 (Up to 10/73) | 65,172 | 3,73,894 | 4,39,066 |

According to the instructions issued to the Medical Officers, almost all the new-born babies are vaccinated at present before the mothers leave the concerned medical institutions.

The National Malaria Eradication Programme was probably started in the year 1958. The district is covered by two of the National Malaria Eradication Programme Units. The subdivisions of Puri, Bhubaneswar and Khurda are Under the Unit located at Puri, while the Nayagarh subdivision is attached to the Unit having its headquarters at Bhanjanagar.

National
Malaria
Eradication
Programme

In both these units the technical staff entertained for the implementation of the programme is as follows:

| Particulars of staff | Number engaged | |
|--------------------------|----------------|------------------|
| | Puri Unit | Bhanjanagar Unit |
| (1) | (2) | (3) |
| Non-medical Unit Officer | 1 | .. |
| Assistant Unit Officer | 1 | .. |
| Laboratory Technician | 8 | .. |
| Malaria Supervisor | 4 | .. |
| Sanitary Inspector | 4 | 2 |
| Surveillance Inspector | 26 | 8 |
| Surveillance worker | 99 | 32 |
| Inferior field worker | 4 | 2 |
| Basic Health Inspector | 23 | .. |
| Basic Health Worker | 102 | .. |

Until 1961 the entire district was in attack phase when two rounds of D. D. T. spray were annually carried out. But in the following year the subdivisions of Puri and Bhubaneswar were declared to have entered into the consolidation phase. The other two subdivisions, Khurda and Nayagarh, followed them in 1963 and 1967 respectively. In the consolidation phase spraying of insecticides was replaced by fortnightly surveillance.

The Puri subdivision, on the recommendation of the Technical Expert Committee appointed by the Government of India in the year 1968 to the effect that it was free from malaria and as such fit for entry into the maintenance phase, was transferred to the control of the Chief District Medical Officer, Puri.

The following table indicates the surveillance activities in the district during the period 1969—73

| Year | Blood slides examined | Positive cases detected and treated |
|------|-----------------------|-------------------------------------|
| (1) | (2) | (3) |
| 1969 | .. 85,344 | 213 |
| 1970 | .. 73,087 | 82 |
| 1971 | .. 81,634 | 135 |
| 1972 | .. 38,809 | 950 |
| 1973 | .. 94,973 | 4,041 |

Beyond all normal expectations the incidence of the disease is rather on the increase as is evident from the above table, which may be attributed to the unsatisfactory working of the programme.

Currently focal spray covering about 50 to 100 holdings is given around the spot where a positive case is detected as a result of surveillance.

The table below gives the details of focal spray undertaken during the years 1969—73.

| Year | No. of villages | No. of holdings | Percentage of coverage |
|------|-----------------|-----------------|------------------------|
| (1) | (2) | (3) | (4) |
| 1969 | 18 | 20,362 | 85 |
| 1970 | 16 | 18,875 | 84 |
| 1971 | 22 | 27,344 | 90 |
| 1972 | 32 | 36,848 | 90 |
| 1973 | 48 | 55,963 | 90 |

The technical team of the Government of India which visited Orissa in 1971 after the flood and cyclone, recommended for a thorough spraying of the Puri subdivision to check malaria transmission. Their recommendations were carried out in the following year two rounds of D. D. T. were sprayed in the entire subdivision.

With the help of the Government of India the National Filaria Control Programme was started in the State of Orissa in 1955-56. The district was brought under it during the following year when three Filaria Control Units were started at Puri, Khurda and Ranpur with a population coverage of 3 lakhs each. Besides, a Pilot Project covering a population of one and a half lakhs was also started in the same year with its headquarters at Ranpur.

National
Filaria
Control
Programme

Since the year 1956-57, spray operations with high Gama B. H. C. and Dieldrin were conducted in the coastal area with a view to controlling filariasis. But with the instructions of the Government of India mass Hetrazan therapy was also undertaken from 1958-59 for reducing the filariasis infection from the population within the area of operation of the programme. This process, however, continued only for three years until 1961-62, when the Government of India appointed the first Assessment Committee to review the progress of

the scheme. According to the recommendation of the Committee, both the above measures were discontinued and the activities were confined to the urban areas only. The Ranpur Unit was consequently shifted to Bhubaneshwar in the year 1962-63 and the Pilot Project was closed from 1967-68. In order to check mosquito breeding weekly spraying of M. L. Oil over the drains, ponds and unused tanks etc., chiefly constituted the anti-larval measures undertaken by the units as recommended by the I. A. T. since 1961-62. They also conducted random as well as vertical survey and identification of mosquitoes to ascertain the rate of infection of both the mosquitoes and men. The purpose of the random survey of all the age-groups regularly carried out by the staff is mainly to discover the number of persons affected by the disease and harbouring micro-filaria in the blood. Besides, from the regular and random catching stations the mosquitoes are collected to ascertain their density as well as the rate of infection.

The total strength of the principal staff entertained in the district for implementation of the scheme are, senior filaria inspector 5, senior filaria worker 24, insect collector 12 and laboratory technician 3.

The following table will show the achievements made under the scheme during the years 1970—73.

| Year | No. of mosquitoes | | | No. of blood slides | | | Larvi- cidal oil used in litre |
|------|-------------------|---------------|-------------------|---------------------|----------|-----------------------------|---|
| | Collec- ted | Exa- mined | Found positive | Collected | Examined | Found RV+Ve for M. F. | |
| 1970 | 23,444 | 14,851 | 79 | 1,145 | 1,145 | 69 | 1,70,098 |
| 1971 | 35,003 | 24,354 | 86 | 1,745 | 1,745 | 159 | 1,68,473 |
| 1972 | 44,986 | 34,787 | 375 | 3,516 | 3,516 | 442 | 1,50,590 |
| 1973 | 33,642 | 18,434 | 262 | 2,546 | 2,546 | 187 | 1,85,546 |

T. B. Control
Programme

Prior to the functioning of T. B. Control programme in the year 1964, there was only one T. B. clinic at Puri. The activities of the programme was reinforced with the merging of a B. C. G. team in 1966. The T. B. control measures include mass B. C. G. vaccination, establishment of clinics, isolation centres, demonstration and training centres and increase of treatment facilities for the T. B. patients.

The District Tuberculosis Officer is directly in charge of the programme. He works under the control of the Chief District Medical Officer and is assisted by a host of technical and non-technical personnel. In the preventive wing, the B. C. G. team consists of a team leader and 7 technicians. On the curative side, the T. B. Control Centre, Puri, is provided with one assistant surgeon, two male health visitors and a technician. It is provided with 6 observation beds only and is attached to the T. B. Hospital, Puri. The sub-centres and other peripheral institutions are managed with the existing medical and para-medical staff. The health visitor is trained at the National T. B. Institute, Bangalore. Motivation of T. B. patients, drug distribution, control of the defaulters at the district centre and imparting training to the para-medical personnel of the peripheral institutions constitute his chief functions. The B. C. G. team covers the entire district for mass vaccination of 0—19 years age-groups and also refers suspected cases for investigation and treatment.

The achievement of the B. C. G. team from 1968 to 1972 is given in the table below.

| Year | Total tested | Neo-natal vaccination | Total registration | Total vaccination |
|------|--------------|-----------------------|--------------------|-------------------|
| (1) | (2) | (3) | (4) | (5) |
| 1968 | 1,380 | 557 | 1,23,009 | 35,029 |
| 1969 | 1,620 | 422 | 1,22,329 | 38,157 |
| 1970 | 1,191 | 81 | 1,06,319 | 32,463 |
| 1971 | 814 | 38 | 1,60,913 | 36,998 |
| 1972 | 844 | 37 | 1,24,962 | 33,301 |

The year-wise activities in the fields of diagnosis, treatment, etc. of T. B. cases for the period 1968—72 in the district is furnished in Appendix VI.

The anti-leprosy work consisting of detection, treatment and health education is carried on by the State Government as well as by the voluntary agencies. The organisations functioning for the purpose are, five Leprosy Control Units; eleven Survey, Education and Treatment (S. E. T.) Centres managed by the Health Department; three Leprosy Colonies and ten clinics operated by the Hind Kustha Nivaran Sangha (H. K. N. S.). In addition to these, there is a Health Education Bureau opened by the Gandhi Memorial Leprosy Foundation at Khurda Road.

Anti-Leprosy Work

Detailed information concerning these institutions will be found in Appendix VII.

For the control and supervision of these institutions, the Chief District Medical Officer and the Assistant District Medical Officer (P. H.) are mainly responsible. The District Leprosy and Epidemic Officer also visits them at regular intervals. Each Control Unit is chiefly staffed by a medical officer, a non-medical supervisor and a physiotherapist. But the Survey Education and Treatment Centre is managed only by a para-medical worker under the supervision of the medical officer of the concerned Primary Health Centre.

There is a district branch of the Hind Kustha Nivaran Sangha with nominated official and non-official members. The Government grant-in-aid forms the chief source of its income.

One medical officer is exclusively in charge of the Puri Leprosy Colony. The colonies at Janla and Mangarajpur are managed by the Government Leprosy Assistants under the supervision of the nearest medical officer. The Government also appoints the leprosy assistants who remain in charge of the clinics.

The health education on leprosy is mainly carried on through group talks and distribution of pamphlets. For the detection of cases, mass survey is done. The infectious and complicated cases are generally admitted into the colonies while those of less serious nature are treated in the clinics.

Through the various leprosy institutions in the district 6,953 cases were detected by the end of 1972 of which 4,295 were under treatment.

For imparting training to the para-medical workers and non-medical supervisors, a Leprosy Workers' Training School functions at Khurda.

The Yaws Control Programme is being implemented by the Director of Health and Family Planning Services, Orissa, since 1955-56 and is financed by the Tribal and Rural Welfare Department. The Survey operations in the Gania and Daspalla areas of Puri district covering a population of 1,27,343, which are recognised as Yaws affected areas, are completed under this programme. As a result of this operation, 311 cases are detected and given treatment. The re-survey operation, which is now in progress and has already covered a population of 40,516, aims at affording treatment to all the active Yaws

Yaws Control Programme

cases and to their contacts with a view to preventing its spread. After the completion of the re-survey operation, according to the scheme, a sample survey in non-tribal areas adjoining the Yaws affected areas will be conducted. Thereafter it will merge, in its maintenance phase, with the Primary Health Centre.

In most of the hospitals and dispensaries in the district facilities are available for the treatment of venereal disease patients.

Venereal
Disease

The Director of Health and Family Planning Services, Orissa, is the Food Health Authority under the provisions of the Central Prevention of Food Adulteration Act, 1954, which came into force in the entire State of Orissa in the year 1959 and is responsible for the implementation of the Act. Under him there are 4 part-time Food Inspectors such as the Assistant Director, Public Health (on Zonal basis) ; the Assistant District Medical Officer (P. H.) ; the Health Officer, Puri Municipality and the Health Officer, Bhubaneswar Notified Area Council, who are directly in charge of the implementation of the Act. The Chief District Medical Officer, Puri, is authorised by the Government to accord written consent for the institution of prosecution for offences under the Prevention of Food Adulteration Act within his jurisdiction including Municipalities and Notified Area Councils. He also acts as the licencing authority of the district under the Act to grant licence in respect of manufacture of food for sale and sale of any article of food in his jurisdiction. The food samples collected by the Food Inspectors are examined in the State Public Health Laboratory.

Prevention
of Food
Adultera-
tion and
Water
Pollution

During the last 5 years (1968—72) 352 food samples collected from Puri district were examined in the laboratory under the Prevention of Food Adulteration Act, of which 244 were found adulterated. Besides, the Mobile Analytical Laboratory, an unit under the State Public Health Laboratory, also conducted in the same period preliminary test of 682 food samples at different places of Puri district, specially during *melas* and festivals and suspected 140 cases to be adulterated.

The table below shows the number of water samples collected from the Puri district during the period 1969—72 and the result of their examination.

| Year | Chemical analysis | | Bacteriological Examination | |
|------|----------------------|--------------------------|-----------------------------|--------------------------|
| | Total cases examined | No. found unsatisfactory | Total cases examined | No. found unsatisfactory |
| (1) | (2) | (3) | (4) | (5) |
| 1969 | 89 | 6 | 89 | 54 |
| 1970 | 108 | .. | 107 | 40 |
| 1971 | 112 | 22 | 117 | 62 |
| 1972 | 94 | 7 | 101 | 36 |

The results of bacteriological test unlike the chemical analysis seems to be undoubtedly formidable.

Health
Education

The Health Education Bureau, according to the pattern prescribed by the Government of India, was started in the State in 1960 and is attached to the Director of Health and Family Planning Services, Orissa. Although the scheme envisaged establishment of District Health Education Bureaus, they are yet to be organised. The objectives of the scheme is to make the people realise their responsibility about their own health, the health of their family and that of the community at large. For this purpose the Central Bureau, in absence of the district organisations, produces Health Education materials for different public health programmes; such as cholera, smallpox, nutrition, malaria and blood donation, etc ; organises field study programmes for health education and research. ; conducts school health education programmes in collaboration with the Education Department and conducts training programme of Health personnel in health education methods and media. It also observes Health Days, takes part in public education programmes during fairs and festivals in the district such as the Car Festival at Puri and the fair at Konarak, and conducts special programmes during epidemics.

School
Health
Service

The School Health Service is one of the oldest schemes. After the constitution of Orissa as a separate Province in 1936, Cuttack was the headquarters of the school medical officers. In 1954 two circles were created in respect of the boys' schools, while one Lady Medical Officer with headquarters at Bhubaneswar was appointed for all the girls' schools of the State. The School Medical Officer, Southern Zone, Berhampur, and the Lady Medical Officer inspect the schools of the Puri district. The object of the scheme is to examine the health of the students and to impart advice to those who are found defective.

During the period 1969-73, only seven of the girls' schools and five boys' schools of this district, were visited by these medical officers. Of the 1,309 girl students examined, only 341 representing 26 per cent were found to have been suffering from various diseases. Similarly of the 1,143 boy students examined, only 432 representing nearly 38 per cent were found defective. The percentage of defects in male students seems higher than those of the other sex.

Drugs
Control

The Drugs Control Administration chiefly aims at the effective control over the quality, purity and potentiality of the drugs manufactured, sold and distributed in the State. Earlier the Director of Health and Family Planning Services, Orissa, functioned as the *ex-officio* Drugs Controller. But at present, the Drugs Control Administration is vested in a separate post of Drugs Controller. The Puri

district is directly in charge of the Drugs Inspector, Puri Range, with headquarters at Bhubaneswar. The important functions of the organisation are enforcement of the Drugs and Cosmetics Act, 1940, and the rules made thereunder which seek to exercise control over manufacture, sale and distribution of drugs, cosmetics, and homœopathic medicines. Besides, the organisation also scrutinises the objectionable advertisements, enforces the Dangerous Drugs Act in liaison with the excise authorities, ensures drugs price display and price control, and issues essentiality certificate to the pharmaceutical industries.

The year-wise activities of this organisation for the period 1969-74 is furnished below.

| Year | No. of samples drawn | Inspection of sales premises and manufacturing units, etc. |
|---------|----------------------|--|
| (1) | (2) | (3) |
| 1969-70 | 9 | 110 |
| 1970-71 | 26 | 149 |
| 1971-72 | 88 | 116 |
| 1972-73 | 65 | 120 |
| 1973-74 | 67 | 117 |

The analysis of the drug samples is made in the Central Drugs Laboratory. Actions under the provisions of the relevant Acts are taken against the sale of misbranded and sub-standard drugs.

For the implementation of the Nutrition Programme, the State Nutrition Division was established in the year 1959 under the direct control of the Director of Health and Family Planning Services. An effective field service to improve local diets through production, preservation and use of protective foods and to ensure effective utilisation of these protective food by the vulnerable groups, constitute the principal objective of the scheme. Besides, by way of nutrition education and practical demonstration in the field, the simple nutrition principles are instilled among the masses.

Nutrition Programme

During the last five years the Dietary Survey and Nutrition Assessment were made in Gania, Gop and Ranpur Blocks under the Applied Nutrition Programme. Supervision of slum feeding centres under Special Nutrition Programme at Puri town is made by the State Nutrition Division.

Regarding drainage and protected water-supply of Puri town a mention of the observations made by P. T. Mansfield in the Gazetteer published in 1929 seems worthwhile. He stated, "Though much remains to be done, it will be seen that a marked and most gratifying improvement in the condition of the houses has taken place.

Underground Drainage and Protected Water-supply

In the plinth of nearly every masonry house in the town may be seen the sites of the former cess-pools which have been filled up, a pipe now passing through the centre of each, and conveying the domestic water into suitable receptacles. The most important sanitary needs of the town are a good drainage system and an improved water-supply. At present, drinking water is obtained mainly from wells and tanks, the latter are often insanitary, while the inferior quality of the water which the former contain as well as their faulty construction, is now, as it has been for years past a grave sanitary evil". These sanitary evils though persisted quite long, remarkable progress has undoubtedly been achieved in both these fields. Besides Puri town, almost all the towns of the district as well as a fairly large number of villages have been provided with protected water-supply.

Administra-
tive set up

The execution of water-supply and drainage programmes in the district at present rests with the Public Health Engineering Organisation. There are, under the overall supervision of the Chief Engineer, Public Health, Orissa, Bhubaneswar, three Public Health Divisions in the district. One of them (Bhubaneswar Division No. 1) looks after the original works, as well as the maintenance work to be undertaken relating to the water-supply, sewerage and drainage of the district, excluding the maintenance of the Capital Project. The repairs and maintenance of the external fittings of the Public Health Services of the New Capital, Bhubaneswar, including the Public Health Works of Konarak are entrusted to the Bhubaneswar Division No. II. The Tube-well Division No. I, undertakes the works, both original and repair, connected with the tube-wells in this district as well as the district of Cuttack. Each of these divisions is placed directly in charge of an Executive Engineer who is responsible for the smooth and efficient management of the division.

The Public Health Circle located at Bhubaneswar, constitutes of Puri, Cuttack, Mayurbhanj and Balasore districts. The Superintending Engineer in charge of the circle is the controlling officer in respect of the Executive Engineers under him.

Each Public Health Division is divided into subdivisions and each subdivision into sections which are placed under Assistant Engineers and Sub-Assistant Engineers respectively.

The survey and investigation, generally conducted prior to execution of any work, are usually made by the Executive Engineer, Investigation Division, Bhubaneswar.

Capital
Sewerage

The Capital Sewerage and the Water-Supply schemes were being executed under a common programme known as Capital Project. Later the two schemes were separated and tagged with two separate programmes under the name Urban Water-supply Programme and

Urban Sewerage Programme. The Capital Sewerage Scheme aims at providing central sewerage system at New Capital with required sewerage treatment, laying of trunk and lateral sewers in the various units of Bhubaneswar town. A comprehensive sewerage scheme designed to cover both the New Capital and the Bhubaneswar Old Town is now under preparation in the Central Sewerage and Drainage Investigation Division, Bhubaneswar. Its implementation is likely to be completed by the end of the Fifth Plan period (1974-79) for which a sum of Rs. 200.00 lakhs has been provided.

The execution of the Puri town water-supply system was started in 1930 and the actual water-supply made on the 15th October 1935. Detailed accounts with regard to the water-supply system in Puri town is furnished in Chapter XIV. When the previous supply system proved inadequate to cater to the needs of the growing population in 1960-61, a new scheme known as augmentation scheme, was started. The scheme was designed for an additional population of 80,000, including 20,000 pilgrims. The object of the scheme is to provide water at the rate of 113.5 litres *per capita* per day. Although an expenditure of nearly Rs. 38.7 lakhs was incurred until the end of 1973-74 on the scheme, the work is still in progress. The completed works have been handed over to the Puri Municipality for maintenance. Subject to the availability of funds and material, the scheme is likely to be completed in 1977.

Puri Town
Water-supply

The Capital Water-supply Scheme has been operating along with the growth of the State Capital at Bhubaneswar. With the increase of population the need for water is gradually increasing in the Capital area. Except certain outlying areas such as Old town, Nayapalli and Badagad etc. there is hardly any other source of water supply in the Capital. So the importance of the Capital Water-supply Scheme can hardly be exaggerated. The population of the Capital including Bhubaneswar old town in 1971 was 1,05,000. As estimated by the Town Planning Organisation, it might arrive at 2 lakhs in 1986. The scheme has, therefore, been designed with an eye to accommodate the requirements of the estimated population in 1986. Presently, about 10 million gallons of water is supplied daily to the New Capital and Old town covering a population of nearly 1.20 lakhs. The present average consumption rate of 90 gallons *per capita* per diem has been estimated at a reduced rate of 70 gallons in 1986. At this rate, the future daily requirement in 1986 would be about fifteen million gallons. The pumping main, the pumps at the intake and the filtration plant have been so designed as to allow a 33 per cent additional daily supply i. e., 20 million gallons over and above

Capital
Water
Supply
Scheme

the estimated requirement. The total capacity of the existing filtration plants comes to 11.5 million gallons. During the 5th plan period (1974—79) the additional filtration plants of nearly 9 million gallons capacity will have to be provided. A provision of 250.00 lakhs has been made in the 5th Five-Year Plan to complete the work comprising the construction of the filtration plant, intake pumping mains both for raw and clear water etc.

The rivers Daya and Kuakhai constitute the main source of water supply.

Separate water-supply projects are also under construction in the towns of Khurda, Nayagarh, and Bhubaneshwar (old town) details of which are furnished in the table below.

| Name of town | Population coverage | | Source of supply |
|------------------------|----------------------------------|---------------------|--------------------------------|
| | 1971 | Designed in 2001 | |
| (1) | (2) | (3) | (4) |
| Bhubaneshwar (Oldtown) | 1,05,491 (including capital). | 30,000 (in 1991) | Surface water (Daya river) |
| Khurda .. | 15,882 | 30,000 | Daya river |
| Nayagarh .. | 5,208 | 10,400 | Surface water (Dauka river) |

| Name of Town | Mode of supply | Rate of supply Litres P. C. per day | Date when the Scheme | |
|-------------------------|--------------------------------|---|----------------------|---|
| | | | Started | Completed/ likely to be completed |
| (1) | (5) | (6) | (7) | (8) |
| Bhubaneshwar (Old town) | Standpost and house connection | 113.5 | 1960-61 | 1976 |
| Khurda .. | Standpost and house connection | 113.5 | 1970-71 | 1976 |
| Nayagarh .. | Standpost and house connection | 113.5 | 1972-73 | 1975 |

Until the implementation of the Five Year Plans in 1951, no attention was perhaps given to the problem of providing the rural people with wholesome and potable water. They were generally depending on the polluted water of the tanks, pools, wells and rivers, etc. During the past few years different schemes have been undertaken at different times to ameliorate their difficulties. Brief accounts of these schemes are furnished below.

Rural Water-supply

The State Government took a decision in November, 1961 to launch a systematic rural water-supply programme. The villages with a population of 2,000 and above were decided to be provided with piped water-supply and those with less population to have sanitary wells or tube-wells fitted with hand pumps. According to the decision, at the first instance, the following 10 villages were selected to be covered under this programme. With a view to secure UNICEF assistance, two of them, namely, Dandamukundapur and Patapur were also brought under UNICEF aided programme. UNICEF assistance to the tune of Rs.59,039 was received in the shape of materials for both these villages. Almost all the schemes excepting that of Daruthenga are completed.

Piped Water-supply under Local Development Work Programme

Name of the villages provided with Piped Water-supply :

| | |
|------------------|------------|
| Balanga | Kantilo |
| Biranarasinghpur | Khalisahi |
| Dandamukundapur | Mendhasala |
| Daruthenga | Patpur |
| Dhuali | Samangara |

Tube-wells were installed in different villages by different institutions, private parties and the Government. During the 1st and 2nd Five Year Plan periods (1951—56 and 1956—61) Rural Water-supply Programme was integrated with the Community Development Department. All the works connected with the rural water-supply were executed through the Blocks with the technical help of the Public Health Engineering Organisation. As many as 654 tube-wells were sunk during this period besides dug wells and tanks which were constructed by the Community Development Department.

Tube-well Scheme

Due to improper handling, non-maintenance and other reasons many of these tube-wells were found unserviceable. For the upkeep of these public properties, in 1969, Government in the Urban Development Department decided that all the drinking water tube-wells in the State which are installed by Government Departments would be maintained by the Public Health Engineering Organisation with the funds provided by the Government. The total number of

all the tube-wells installed previously by different Government Departments and those executed by the Public Health Engineering Organisation from different grants and under loan schemes; drought, cyclone and flood relief measures including the tube-wells installed with UNICEF aid, came to 1,214 as enumerated in February, 1974. These tube-wells were installed in 809 villages under 18 of the Blocks in the district. Of these, nearly 400 tube-wells were defunct.

**Accelerated
Water-
supply
Programme**

The Accelerated Water-supply Programme, a centrally sponsored scheme, was implemented in the district in 1972-73 with the object of providing piped water-supply as well as tube-wells in the rural areas. Although it was substituted by the Minimum Needs Programme in 1974-75, during its short period of implementation as many as 311 tube-wells could be sunk.

**Minimum
Needs Pro-
gramme**

The Minimum Needs Programme, a State Plan Scheme, was carried out in 1974-75 with the implementation of the Fifth Plan with a view to providing the rural people with drinking water only through tube-wells. The villages were surveyed according to the norms prescribed by the Government of India. As many as 1,394 villages were identified as problem villages of the district which fall under the following categories :

- | | |
|--|-----|
| 1. Scarcity villages (where water table remains 50' or more below the surface level or water source is 1.6 km. from the last habitation) | 378 |
| 2. Health hazard villages (particularly those cholera endemic) | 994 |
| 3. Guinea-worm infected villages | Nil |
| 4. Chloride, fluoride and iron content (villages having drinking water containing excess of chloride, etc.) | 22 |

The programme envisages to provide each of these identified villages with at least one tube-well during the Fifth Plan. During first year of the plan period only 21 tube-wells were sunk.

**Slum
Improvement
and
Clearance**

Growth of slums is not an unusual phenomenon in the modern cities and towns. These plague-spots not only undermine the beauty of the towns and cities but also contribute towards polluting the surrounding atmosphere. For the improvement of these areas and for rehabilitating the slum dwellers, the scheme, Slum Improvement and Clearance, has been in operation in several towns where the problem is acute. Since 1958-59 this scheme has been undertaken in the Bhubaneswar Notified Area. Under the scheme as many as 184 tenements have been erected by the end of 1974 at an outlay of nearly Rs. 6.23 lakhs which provided accommodation for 736 persons. These quarters are chiefly built in the localities of Malisahi, Sriramnagar and by the side of the Mahatab Road. More of such quarters are likely to be constructed in the old town, the old railway station area and near Sahidnagar.

APPENDIX I
Vital Statistics

| Year | Birth | | Death | | No. of infant death | | Birth rate per 100 of population | | Death rate per 100 of population | | Infant mortality rate per 100 live birth | | | | | | | | |
|------|-------|--------|-------|--------|---------------------|-------|----------------------------------|-------|----------------------------------|-------|--|-------|--------|-------|-------|-------|--------|--------|--------|
| | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | | | | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | |
| 1961 | .. | 46,242 | 4,109 | 50,351 | 25,572 | 2,075 | 27,647 | 7,069 | 582 | 7,651 | 26.05 | 40.68 | 24.84 | 14.41 | 20.54 | 14.74 | 141.64 | 152.87 | 151.41 |
| 1962 | .. | 46,839 | 3,730 | 50,569 | 25,563 | 2,134 | 27,697 | 5,635 | 537 | 6,172 | 26.01 | 35.86 | 26.55 | 14.19 | 20.52 | 14.54 | 120.31 | 143.97 | 122.05 |
| 1963 | .. | 43,354 | 3,355 | 46,709 | 24,730 | 2,048 | 26,778 | 6,602 | 358 | 6,960 | 23.73 | 31.35 | 24.15 | 13.54 | 19.14 | 13.85 | 132.28 | 106.71 | 149.01 |
| 1964 | .. | .. | 4,154 | 5,154 | .. | 1,969 | 1,969 | .. | 329 | 329 | .. | 31.96 | 31.96 | .. | 15.15 | 15.15 | .. | 79.20 | 79.20 |
| 1965 | .. | .. | 5,225 | 5,225 | .. | 1,818 | 1,818 | .. | 350 | 350 | .. | 39.29 | 39.29 | .. | 13.67 | 13.67 | .. | 66.99 | 66.99 |
| 1966 | .. | .. | 5,551 | 5,551 | .. | 1,888 | 1,888 | .. | 394 | 394 | .. | 40.52 | 40.52 | .. | 13.78 | 13.78 | .. | 70.98 | 70.98 |
| 1967 | .. | .. | 5,659 | 5,659 | .. | 1,964 | 1,964 | .. | 375 | 375 | .. | 35.37 | 35.37 | .. | 12.30 | 12.30 | .. | 66.27 | 66.27 |
| 1968 | .. | .. | 6,237 | 6,237 | .. | 2,010 | 2,010 | .. | 419 | 419 | .. | 32.65 | 32.65 | .. | 10.52 | 10.52 | .. | 67.18 | 67.18 |
| 1969 | .. | .. | 5,782 | 5,782 | .. | 2,208 | 2,208 | .. | 446 | 446 | .. | 28.77 | 28.77 | .. | 10.49 | 10.49 | .. | 77.13 | 77.13 |
| 1970 | .. | 15,978 | 6,588 | 22,566 | 7,803 | 2,210 | 10,013 | 2,022 | 419 | 2,441 | 16.84 | 31.52 | 19.49 | 8.22 | 10.57 | 8.65 | 126.55 | 63.60 | 108.17 |
| 1971 | .. | 6,425 | 7,101 | 13,526 | 3,407 | 2,228 | 5,635 | 653 | 442 | 1,095 | 15.33 | 31.01 | 120.87 | 8.13 | 9.73 | 8.70 | 101.63 | 62.24 | 80.96 |

APPENDIX II
Deaths From Chief Diseases For The Period From 1961 To 1971

| Year | Cholera | | | Smallpox | | | Fever | | | Dysentery and Diarrhoea | | | Respiratory Diseases | | |
|------|---------|-------|-------|----------|-------|-------|--------|-------|--------|-------------------------|-------|-------|----------------------|-------|-------|
| | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) |
| 1961 | .. | .. | 1 | .. | .. | .. | 11,561 | 521 | 12,082 | 2,665 | 240 | 2,905 | 829 | 52 | 881 |
| 1962 | .. | .. | .. | 10 | 1 | 11 | 11,211 | 540 | 11,751 | 2,895 | 199 | 3,094 | 1,824 | 85 | 1,909 |
| 1963 | .. | 149 | .. | 129 | .. | 129 | 10,898 | 684 | 11,582 | 1,986 | 214 | 2,200 | 822 | 129 | 951 |
| 1964 | .. | .. | .. | .. | .. | .. | .. | 584 | 584 | .. | 229 | 229 | .. | 77 | 77 |
| 1965 | .. | .. | .. | .. | 7 | 7 | .. | 502 | 502 | .. | 164 | 164 | .. | 98 | 98 |
| 1966 | .. | 2 | 2 | .. | .. | .. | .. | 472 | 472 | .. | 195 | 195 | .. | 93 | 93 |
| 1967 | .. | 3 | 3 | .. | .. | .. | .. | 587 | 587 | .. | 197 | 197 | .. | 128 | 128 |
| 1968 | .. | .. | .. | .. | 2 | 2 | .. | 634 | 634 | .. | 206 | 206 | .. | 211 | 211 |
| 1969 | .. | .. | .. | .. | 2 | 2 | .. | 723 | 723 | .. | 156 | 156 | .. | 252 | 252 |
| 1970 | .. | 4 | 4 | 3 | 11 | 14 | 3,700 | 501 | 4,201 | 683 | 185 | 868 | 423 | 290 | 713 |
| 1971 | .. | 1 | 3 | 6 | .. | 6 | 1,954 | 504 | 2,458 | 304 | 104 | 408 | 90 | 144 | 234 |

APPENDIX II-Contd.
Deaths From Chief Diseases For The Period From 1961 To 1971

| Year | Injuries | | | Other causes | | | All causes | | |
|------|----------|-------|-------|--------------|-------|--------|------------|-------|--------|
| | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban | Total |
| (1) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) |
| 1961 | .. | 33 | 276 | 10,274 | 1,228 | 11,502 | 25,572 | 2,075 | 27,647 |
| 1962 | .. | 43 | 273 | 9,393 | 1,266 | 10,659 | 25,563 | 2,134 | 27,697 |
| 1963 | .. | 34 | 310 | 10,420 | 987 | 11,407 | 24,730 | 2,048 | 26,778 |
| 1964 | .. | 39 | 39 | .. | 1,040 | 1,040 | .. | 1,969 | 1,969 |
| 1965 | .. | 47 | 47 | .. | 1,000 | 1,000 | .. | 1,818 | 1,818 |
| 1966 | .. | 85 | 85 | .. | 1,041 | 1,041 | .. | 1,888 | 1,888 |
| 1967 | .. | 45 | 45 | .. | 1,004 | 1,004 | .. | 1,964 | 1,964 |
| 1968 | .. | 47 | 47 | .. | 910 | 910 | .. | 2,010 | 2,010 |
| 1969 | .. | 83 | 83 | .. | 992 | 992 | .. | 2,208 | 2,208 |
| 1970 | .. | 54 | 147 | 2,897 | 1,169 | 4,066 | 7,803 | 2,210 | 10,013 |
| 1971 | .. | 60 | 115 | 997 | 1,413 | 2,410 | 3,407 | 2,228 | 5,635 |

APPENDIX III
No. of Patients of Different Diseases Treated And Died In The Hospitals And Dispensaries

| Year | Malaria | | Dysentery | | Typhoid | | Yaws | | Filariasis | | Cholera | | | | | | | | |
|------|----------|---------|-----------|---------|----------|---------|----------|---------|------------|---------|----------|---------|------|--------|-------|------|-------|------|----|
| | Out-door | In-door | Out-door | In-door | Out-door | In-door | Out-door | In-door | Out-door | In-door | Out-door | In-door | | | | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | |
| 1963 | .. | 9,048 | 180 | 7 | 89,782 | 1,691 | 77 | 2,640 | 400 | 24 | 3,397 | 123 | 5 | 22,453 | 913 | 37 | 3,489 | 182 | 10 |
| 1964 | .. | 6,568 | 147 | 1 | 1,08,742 | 1,953 | 47 | 3,035 | 1,129 | 20 | 16 | 7 | 1 | 21,423 | 1,159 | 32 | 968 | .. | .. |
| 1965 | .. | 3,104 | 53 | 1 | 1,04,732 | 1,023 | 49 | 2,505 | 716 | 25 | 19 | 17 | 2 | 28,967 | 890 | 1 | 676 | 17 | 1 |
| 1966 | .. | 2,058 | 55 | 3 | 87,892 | 1,059 | 32 | 3,918 | 1,001 | 13 | 146 | 14 | 1 | 24,510 | 943 | 5 | 489 | 5 | .. |
| 1967 | .. | 2,875 | 9 | .. | 93,578 | 665 | 45 | 4,439 | 623 | 33 | 121 | 79 | .. | 30,305 | 908 | 3 | 866 | .. | .. |
| 1968 | .. | 2,844 | 9 | .. | 1,14,696 | 930 | 40 | 5,012 | 594 | 31 | 1,492 | 10 | 1 | 37,382 | 656 | 4 | 2,988 | 4 | .. |
| 1969 | .. | 2,514 | 20 | .. | 1,52,064 | 1,256 | 66 | 6,662 | 670 | 23 | .. | .. | .. | 29,213 | 727 | 8 | .. | .. | .. |
| 1970 | .. | 162 | 12 | .. | 1,58,082 | 819 | 54 | 6,926 | 663 | 23 | 24 | 5 | .. | 48,452 | 679 | 8 | .. | 7 | .. |
| 1971 | .. | 58 | .. | .. | 1,93,093 | 878 | 22 | 7,529 | 622 | 15 | .. | .. | .. | 55,901 | 1,021 | 11 | .. | 6 | .. |
| 1972 | .. | 2,400 | 42 | 1 | 2,26,670 | 3,806 | 167 | 9,446 | 845 | 46 | .. | .. | .. | 55,895 | 692 | 1 | 115 | 97 | 2 |

APPENDIX III—Contd.
No. of Patients of Different Diseases Treated And Died In The Hospitals And Dispensaries

| Year | Smallpox | | T. B. | | Tetanus | | Cancer | | Heart Diseases | | Other causes | | | | | | |
|------|----------|---------------|----------|---------------|----------|---------------|----------|---------------|----------------|---------------|--------------|---------------|------|-----------|--------|-------|------|
| | Out-door | In-Death door | Out-door | In-Death door | Out-door | In-Death door | Out-door | In-Death door | Out-door | In-Death door | Out-door | In-Death door | | | | | |
| | | | | | | | | | | | | | (20) | (21) | (22) | (23) | (24) |
| (1) | | | | | | | | | | | | | | | | | |
| 1963 | 180 | 33 | 16,803 | 356 | 32 | 371 | 117 | 39 | 36,961 | 50 | 4,941 | 106 | 19 | 1,132,163 | 22,077 | 746 | |
| 1964 | 273 | 170 | 9,470 | 648 | 12 | 298 | 142 | 35 | 32,361 | 149 | 2,507 | 101 | 11 | 1,215,940 | 22,995 | 546 | |
| 1965 | 82 | 151 | 32,214 | 1,388 | 62 | 456 | 187 | 56 | 37,108 | 192 | 3,645 | 181 | 19 | 1,125,879 | 25,528 | 741 | |
| 1966 | 105 | 16 | 22,552 | 1,120 | 65 | 413 | 169 | 35 | 18,475 | 218 | 5,103 | 184 | 17 | 1,180,804 | 26,880 | 812 | |
| 1967 | 174 | 1 | 11,372 | 904 | 53 | 405 | 156 | 46 | 9,671 | 43 | 6,308 | 325 | 27 | 1,326,444 | 29,032 | 632 | |
| 1968 | 211 | 4 | 21,299 | 971 | 60 | 563 | 169 | 36 | 12,085 | 103 | 4,508 | 305 | 23 | 1,387,125 | 31,450 | 754 | |
| 1969 | 40 | 5 | 18,323 | 1,311 | 63 | 469 | 219 | 62 | 14,531 | 192 | 5,599 | 370 | 46 | 1,539,092 | 31,061 | 777 | |
| 1970 | 177 | .. | 18,134 | 1,139 | 83 | 570 | 232 | 92 | 22,744 | 200 | 4,324 | 298 | 58 | 1,559,540 | 30,510 | 841 | |
| 1971 | 20 | 2 | 16,296 | 1,108 | 69 | 552 | 237 | 102 | 9,258 | 164 | 4,503 | 346 | 73 | 1,782,559 | 35,984 | 1,156 | |
| 1972 | 126 | .. | 8,128 | 1,537 | 85 | 692 | 361 | 178 | 14,632 | 948 | 6,311 | 468 | 86 | 1,951,131 | 35,263 | 1,245 | |

APPENDIX IV
Name, Location, Year of Establishment, Etc., of The Medical Institutions of The District

| Name and location | Year of establishment | Number of | | | Nurse | | Bed Strength | | | Remarks |
|--|-----------------------|-----------|-----------------|-----|-------|------|--------------|-------------------------------------|--|---------|
| | | Doctor | Pharma- cist | | | Male | Female | Total | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | | |
| HOSPITALS | | | | | | | | | | |
| Sadar Subdivision : | | | | | | | | | | |
| District Headquarters Hospital, Puri | .. U | 14 | 5 | 31 | 120 | 80 | 200 | | | |
| T. B. Hospital, Puri | .. U | .. | .. | .. | 60 | 15 | 75 | | | |
| Infectious Disease Hospital, Puri | .. U | 6 | 3 | 12 | 23 | 10 | 33 | | | |
| Kamala Devi Mantri Maternity Home, Puri. | U | 1 | 1 | 3 | .. | 16 | 16 | | | |
| Government Hospital, Kakatpur | .. R | 1 | 1 | Nil | 2 | 2 | 4 | Established in 1932 as a Dispensary | | |
| Government Hospital, Nimapara | .. R | 2 | 1 | 1 | 4 | 5 | 9 | | | |
| Government Hospital, Pipili | .. R | 1 | 1 | 1 | 7 | 5 | 12 | | | |
| Government Hospital, Sakhigopal | .. R | 4 | 2 | 3 | 22 | 18 | 40 | | | |
| Bhubaneswar Subdivision : | | | | | | | | | | |
| Capital Hospital, Bhubaneswar | .. U | 15 | 5 | 15 | 71 | 47 | 118 | | | |
| Government Hospital, Bhangarpur | .. R | 1 | 1 | Nil | 2 | 1 | 3 | | | |

APPENDIX IV—Contd.

| Name and location | Year of establishment | Doctor | Number of | | Nurse | Bed Strength | | Remarks | |
|---|-----------------------|--------|------------|-----|-------|--------------|--------|-------------------------------------|-------|
| | | | Pharmacist | | | Male | Female | | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | |
| Khurda Subdivision : | | | | | | | | | |
| Subdivisional Hospital, Khurda | .. U 1864 | 4 | 3 | 3 | 30 | 20 | 50 | | |
| Government Hospital, Banpur | .. R 1862 | 1 | 1 | 1 | 10 | 9 | 19 | | |
| Government Hospital, Bhusandpur | .. R 1967 | 1 | 1 | 1 | 3 | 3 | 6 | Established in 1961 as a P.H.C. | |
| Nayagarh Subdivision : | | | | | | | | | |
| Subdivisional Hospital, Nayagarh | .. U 1949 | 3 | 3 | 4 | 28 | 13 | 41 | Established in 1928 as a dispensary | |
| Basanta Manjari Swasthya Nibhas, Chandpur | R 1958 | 5 | 2 | 20 | 140 | 60 | 200 | | |
| Government Hospital, Daspalla | .. R 1930 | 1 | 2 | 1 | 4 | 2 | 6 | | |
| Government Hospital, Khandapara | .. R 1948 | 1 | 2 | Nil | 6 | 2 | 8 | | |
| Government Hospital, Odagaon | .. R 1948 | 1 | 1 | 1 | 8 | 2 | 10 | | |
| Government Hospital, Ranpur | .. R 1898 | 1 | 2 | 1 | 10 | 6 | 16 | | |
| Government Hospital, Takara | .. R 1961 | 1 | 1 | .. | 4 | 2 | 6 | | |

APPENDIX IV—Contd.

| Name and location | Year of establishment | Number of | | | Bed Strength | | | Remarks |
|--------------------------|-----------------------|-----------|-----------------|-------|--------------|--------|-------|--|
| | | Doctor | Pharma- cist | Nurse | Male | Female | Total | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (10) |
| PRIMARY HEALTH CENTRE | | | | | | | | |
| Sadar Subdivision: | | | | | | | | |
| Astarang P. H. C. | .. 1966 | 2 | 1 | 3 | .. | .. | .. | |
| Algum P. H. C. | .. 1967 | 1 | 1 | 3 | .. | .. | .. | |
| Bangurigaon P. H. C. | .. 1966 | 1 | 1 | 3 | .. | .. | .. | |
| Charichhak P. H. C. | .. 1961 | 1 | 1 | 3 | 4 | 2 | 6 | |
| Chandanpur P. H. C. | .. 1966 | 1 | 1 | 3 | 2 | 2 | 4 | |
| Delang P. H. C. | .. 1964 | 1 | 1 | 3 | 4 | 2 | 6 | |
| Gop P. H. C. | .. 1958 | 1 | 1 | 3 | 4 | 2 | 6 | |
| Kanas P. H. C. | .. 1966 | 1 | 1 | 3 | .. | .. | .. | |
| Mangalpur P. H. C. | .. 1954 | 1 | 1 | 3 | 4 | 2 | 6 | |
| Rebana Nuagaon P. H. C. | .. 1967 | 1 | 1 | 3 | 4 | 2 | 6 | |
| Bhubaneswar Subdivision: | | | | | | | | |
| Balipatna P. H. C. | .. 1966 | 1 | 1 | 3 | 4 | 2 | 6 | |
| Balakati, P. H. C. | .. 1964 | 1 | 1 | 3 | .. | .. | .. | Started in 1959 as medical aid centre. |
| Jatni, P. H. C. | .. 1958-69 | 1 | 1 | 3 | 4 | 7 | 11 | |
| Mendhasala, P. H. C. | .. 1963 | 1 | 1 | 3 | 4 | 2 | 6 | |

APPENDIX IV—Contd.

| (1) Name and location | (2) Year of establishment | (3) Doctor | (4) Number of Pharmacist | | (5) Nurse | (6) Bed Strength | | (7) Male | (8) Female | (9) T.C. | Remarks |
|------------------------------|------------------------------|---------------|-----------------------------|------------|--------------|---------------------|--------|-------------|---------------|-------------|---------|
| | | | Pharmacist | Pharmacist | | Male | Female | | | | |
| Khurda Subdivision: | | | | | | | | | | | |
| Bhagabanpur P. H. C. | 1966 | 1 | 1 | 1 | 3 | 4 | 2 | 2 | 6 | | |
| Bankoi, P. H. C. | 1964 | 1 | 1 | 1 | 3 | .. | .. | .. | .. | | |
| Botalma P. H. C. | 1967 | 1 | 1 | 1 | 3 | .. | .. | .. | .. | | |
| Gamharimunda P. H. C. | 1965 | 1 | 1 | 1 | 3 | 2 | 4 | 4 | 6 | | |
| Nuapada (Chilka) P. H. C. | 1967 | 1 | 1 | 1 | 3 | 1 | Nil | .. | 1 | | |
| Tangi P. H. C. | 1959 | 1 | 1 | 1 | 3 | 4 | 2 | 2 | 6 | | |
| Balugaon P. H. C. | 1967 | 1 | 1 | 1 | 3 | .. | .. | .. | .. | | |
| Nayagarh Subdivision: | | | | | | | | | | | |
| Bhapur P. H. C. | 1967 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 2 | | |
| Badapandusar P. H. C. | 1953 | 1 | 1 | 1 | 3 | 4 | 2 | 2 | 6 | | |
| Gania P. H. C. | 1960 | 1 | 1 | 1 | 3 | 4 | 2 | 2 | 6 | | |
| Mahipur P. H. C. | 1966 | 1 | 1 | 1 | 3 | .. | .. | .. | .. | | |
| Madhyakhand P. H. C. | 1962 | 1 | 1 | 1 | 3 | 4 | 2 | 2 | 6 | | |
| Nuagadia Sahi P. H. C. | 1967 | 2 | 1 | 2 | 2 | .. | .. | .. | .. | | |
| Raj Sunakhala P. H. C. | 1960 | 1 | 1 | 1 | 4 | 4 | 2 | 2 | 6 | | |
| Sarankul P. H. C. | 1967 | 1 | 1 | 1 | 3 | 4 | 2 | 2 | 6 | | |

APPENDIX IV—Contd.

| Location | Year of Esa- blishment |
|--|------------------------------|
| DISPENSARIES | |
| Puri Subdivision: | |
| Ambilipatna Dispensary | .. 1952 |
| Balanga Dispensary | .. 1947 |
| Baliput Dispensary | .. 1948 |
| Brahmagiri Dispensary | .. 1928 |
| Guailpara Dispensary | .. 1964 |
| Krushnaprasad Dispensary | .. 1929 |
| Konarak Dispensary | .. 1969 |
| Nayahat Dispensary | .. 1960 |
| Sahupara Dispensary | .. 1968 |
| Bhubaneshwar Subdivision: | |
| Chandaka Dispensary | .. 1959 |
| Janla Dispensary | .. 1965 |
| Rajas Dispensary | .. 1963 |
| Rajbhawan Dispensary | |
| Zonal Dispensary, Unit-III, Bhubaneshwar | .. 1968 |
| Zonal Dispensary, Unit-IV, Bhubaneshwar | .. 1958 |
| Zonal Dispensary, Unit-VIII, Bhubaneshwar | .. 1961 |
| Zonal Dispensary, Unit-IX, Bhubaneshwar | .. 1960 |
| Zonal Dispensary, Unit-XIII, Bhubaneshwar | .. 1967 |
| Zonal Dispensary, Sahidnagar, Bhubaneshwar | .. 1969 |
| Khurda Subdivision: | |
| Bolagarh Dispensary | .. 1931 |
| Begunia Dispensary | .. 1927 |
| Kuhuri Dispensary | .. 1960 |
| Nirakarpur Dispensary | .. 1948 |
| Niladriprasad Dispensary | .. 1951 |
| Olasinga Dispensary | .. 1929 |
| Nayagarh Subdivision: | |
| Chhamundia Dispensary | .. 1971 |

APPENDIX IV—Contd.

| Location | Year of Establishment |
|----------------------------|-----------------------|
| Darpanarayanpur Dispensary | .. 1952 |
| Kural Dispensary | .. 1965 |
| Kantilo Dispensary | .. 1948 |
| Hastidakua Dispensary | .. 1947 |
| Majhiakhanda Dispensary | .. 1948 |
| Nuagaon dispensary | .. 1940 |
| Taria dispensary | .. 1967 |
| Magarbandha dispensary | .. 1971 |

MEDICAL-AID CENTRES

| | |
|---------------------------------|------|
| Jharpada Medical-Aid Centre, | 1970 |
| Banamalipur Medical-Aid Centre, | 1969 |

SPECIAL INSTITUTIONS

- Police Hospital, Puri (1910) Bed strength, Male 18
- Jail Hospital, Puri
- Railway Hospital, Khurda Road
- Railway Health Centre, Puri (1966)
- Railway Traffic Colony Dispensary, Khurda Road
- Railway Loco Colony Dispensary, Khurda Road
- E. S. I. Dispensary, Bhubaneswar (Labour Department)
- E. S. I. Dispensary, Tapang, Nayagarh (Labour Department)
- Regional Research Institute (Ayurveda) Hospital, (1972), Bhubaneswar.

INSTITUTIONS MANAGED BY LOCAL BODIES

- Notified Area Council Hospital, Bhubaneswar
- Municipal Dispensary, Puri

INSTITUTIONS MANAGED BY VOLUNTARY ORGANISATIONS

- Ramakrishna Mission Dispensary, Bhubaneswar (1919)
- Swargadwara Charitable Hospital, Puri
- National Paediatric Foundation, Bhubaneswar

OTHER INSTITUTIONS

| | |
|---|--------|
| Vani Vihar Dispensary, Bhubaneswar | (1963) |
| Regional Research Laboratory Dispensary, Bhubaneswar | (1966) |
| Electricity Board Colony Dispensary, Bhubaneswar | (1967) |
| Orissa University of Agriculture and Technology Dispensary, Bhubaneswar | .. |
| Regional College of Education Dispensary, Bhubaneswar | (1964) |

APPENDIX V

GOVINDADWADASHI FESTIVAL

Govindadwadashi festival had a special significance as it occurred once in several years and it was believed that a dip in the sea and a *darsan* of Lord Jagannath on that holy day bestowed great religious merit on the devotees. According to some estimates about 5 lakhs of pilgrims congregated at Puri on the 27th February, 1961 and from the public health and sanitary point of view it was a difficult problem to tackle such huge influx. The task was immense and the entire burden and responsibility fell on the medical, public health and municipal health staff. The Joint Director of Health Services, Orissa, was in overall charge of supervision of all the operations in the State of Orissa.

Advanced inoculation work started by local staff in the early part of January, 1961. This was later reinforced by additional staff during the same month. Intensive operations started from the 16th February, 1961 and the staff were finally disbanded on the 4th March, 1961. The entire town was divided into three sectors, each in charge of a medical officer. Each sector was again subdivided into two circles which were kept in-charge of circle medical officers. Separate staff were posted for the railway station and the temple. Additional staff looked after lodging houses, food adulteration, disinfection and the sanitary measures undertaken at Chakratirtha camp. The latter was made suitable for the accommodation of the pilgrims. The medical officer of each sector was made responsible for all matters concerning environmental sanitation, inoculation, disinfection, treatment of minor ailments and prevention of epidemics. Meetings to co-ordinate the activities of the health staff were regularly held during the period for assessment of work done and programme for the next day was chalked out. The Health Officer in the town with a skeleton staff maintained the supply line for the daily requirements of regular sectors.

Puri Municipality had its own contribution in the prevention of epidemics during this record congregation. All the existing tube-wells were repaired thoroughly and new tube-wells were installed. This not only served the supply of protected drinking water to the pilgrims but was a sufficient safeguard against any possible failure of the water works during the peak period. On the

festival day. Nearly 200 sweepers were recruited from outside and were placed at the disposal of the Health Officer. A daily double service was ensured and an all out effort made to see that the roads and drains were kept clean. The conservancy arrangement made on the occasion was acclaimed by all concerned as a grand success. The Municipality dispensary situated near the Lion Gate was kept open for twenty-four hours. The patients were being given immediate attention at whatever time they were brought to the dispensary. First-aid operations were undertaken in many places.

APPENDIX VI

TABLE SHOWING YEAR-WISE ACTIVITIES IN DIFFERENT FIELDS OF DIAGNOSIS AND TREATMENT, ETC., OF T. B. PATIENT

| Year | Diagnostic activities | | | | | | | | | | |
|------|------------------------|-----------------------|--------------------------|-----------------------|-----------------|-----------------------|-----------------------------|-------------------------------------|----------------------|--------|------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| | No. of sputum examined | No. of positive cases | No. of X-Ray Examination | No. of positive cases | Pulmonary cases | Extra pulmonary cases | Cases from outside district | Transferred from other institutions | Total cases detected | Deaths | |
| 1968 | .. | 2,596 | 206 | 2,099 | 373 | 379 | 47 | 42 | 172 | 640 | 29 |
| 1969 | .. | 2,120 | 166 | 1,788 | 356 | 333 | 60 | 44 | 272 | 709 | 28 |
| 1970 | .. | 2,164 | 181 | 2,164 | 464 | 456 | 74 | 29 | 267 | 826 | 11 |
| 1971 | .. | 1,949 | 285 | 1,754 | 490 | 501 | 46 | 43 | 197 | 787 | 16 |
| 1972 | .. | 1,524 | 137 | 1,693 | 488 | 473 | 50 | 44 | 156 | 723 | 15 |

APPENDIX VII

LEPROSY INSTITUTIONS

(i) Leprosy Control Units:

| Name and location | Sponsored by | Population coverage |
|-------------------|---------------------------------|---------------------|
| Khurda .. | State | 1.5 Lakhs |
| Tangi .. | State | 1.5 Lakhs |
| Charichhak .. | Centre | 3 Lakhs |
| Nayagarh .. | Centre | 3 Lakhs |
| Puri .. | Partly State and partly Centre. | 2.5 Lakhs |

(ii) Survey, Education and Treatment Centres:

| | | |
|-------------------------------|----------------|-------------------|
| Gop .. | State Sector | 20 to 25 thousand |
| Balipatna .. | Ditto | Ditto |
| Bankoi .. | Ditto | Ditto |
| Botlama .. | Ditto | Ditto |
| Kasarda .. | Ditto | Ditto |
| Puri Urban S. E. T. Centre .. | Ditto | Ditto |
| Balakati .. | Ditto | Ditto |
| Kanas .. | Ditto | Ditto |
| Astarang .. | Ditto | Ditto |
| Delang .. | Central Sector | Ditto |
| Kakatpur (Bangurigan) .. | Ditto | Ditto |

(iii) Leprosy Colonies:

Institutions managed by Hind Kustha Nivaran Sangh

| Name and location | Bed strength |
|-------------------|--------------|
| Puri .. | 80 |
| Janla .. | 32 |
| Mangarajpur .. | 20 |

(iv) Clinics:

Institutions managed by Hind Kustha Nivaran Sangh

| Name and location | Name of clinic | Population coverage |
|-------------------|----------------------|---------------------|
| Rajas .. | Rajas .. | 15 to 20 thousand |
| Nimapara .. | Nimapara .. | Ditto |
| Delang .. | Delang .. | Ditto |
| Ranpur .. | { Ranpur .. | Ditto |
| | { Mangarajpur .. | |
| Balakati .. | { Balakati .. | Ditto |
| | { Sisupalgarh .. | |
| | { Hospital Clinic .. | |
| | { Bhubaneshwar .. | |
| Janla .. | Janla .. | Ditto |
| Balanga .. | Balanga .. | Ditto |