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ANNUAL PUBLIC HEALTH
AND
VACCINATION REPORT
OF THE
PROVINCE OF ORISSA
FOR THE YEAR
1944



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Annual Public Health and Vaccination Report of the Province of Orissa for the year 1944

CHAPTER I

Vital Statistics—The birth and death rates shown in this report have been calculated on the estimated mid-year population of 1944 and relate only to an estimated population of 7,760,063 which excludes the population of large areas of Ganjam and Koraput agencies where there is no arrangement for collection of vital statistics.

Births—The total number of live births recorded in 1944 was 195,835 against 237,023 in 1943 showing a decrease of 41,188 births in 1944. The birth rate was 25.25 against 30.75 in 1943. This is a feature generally observed during war when men undertake service far from home; but has probably been contributed to chiefly by the conditions of under nourishment and distress resulting from the increased cost of foodstuffs.

Deaths—The total number of deaths registered in 1944 was 235,581 against 233,584 in 1943 showing an increase of 1,997 deaths in 1943. The death rate was 30.36 in 1944 against 30.30 in 1943.

Out of the total number of 235,581 deaths recorded in 1944, 32,638 or 13.9 per cent were in the age group of 1 to 5 years.

Out of the total number of 58,262 deaths between the ages of 15 and 40 years, 27,404 or 47 per cent were among the males and 30,858 or 53 per cent were among the females as in the previous year. The figures indicate that females are exposed to greater risks during the reproductive period.

Infantile Mortality—There were 40,784 infantile deaths registered in 1944 giving an infant mortality rate of 208.26 per 1,000 live births as compared with 202.55 in 1943.

Of the total number of deaths recorded 40,784 or 17.31 were under one year against 20.55 in 1943.

The high mortality rate among women in the reproductive period and the high infant mortality figure indicate as reported in the previous years reports that steps should be taken to make adequate provision for maternity and child welfare services in the Province.

Registration of births and deaths—Registration of births and deaths is compulsory in the municipal areas only, and in the rural areas it is not compulsory except in some villages of the Ganjam plains. No arrangement has been made to ensure promptitude and accuracy in the collection and compilation of vital statistics in the rural areas. The old method of reporting occurrences of vital events through the village headmen in South Orissa and the village Chowkidars in North Orissa still exists.

Vital statistics is the very foundation on which the whole public health administration has to be based. It was noticed that this important aspect of the Public Health administration left much room for improvement. Monthly vital statistics were published 4 or 5 months after the month to which they related. In order to eliminate all possible delay, I took up the matter with the Revenue and the Police authorities and with their co-operation the delay has been reduced. To ensure accurate collection and prompt notification of vital statistics I have submitted a proposal to the Provincial Government which is now under their consideration. And also to find out the relation of diseases to the prevailing natural and social conditions, their correlation as far as the conditions giving use to them are concerned and several other facts which the figures represent, the services of a statistician are found very essential, for which I am approaching Government separately.

CHAPTERS II AND III

Cholera—The total number of deaths recorded from cholera in 1944 was 18,246 against 20,502 in 1943. The death rate was 2.35 against 2.66 in the previous year. The towns recorded 299 deaths from cholera giving a rate of 1.21 and the rural areas recorded 17,947 deaths with a death rate of 2.39 as compared to 1.55 and 2.69 respectively in the previous year. The death rates in the districts and towns were as follows:—

District	Death rate	Town	Death rate
Cuttack ..	4.16	Cuttack ..	1.23
Puri ..	3.72	Puri ..	1.52
Balasore ..	2.58	Balasore ..	0.15
Ganjam plains ..	1.16	Berhampur ..	0.92
Sambalpur ..	0.06	Sambalpur ..	0.28
Angul ..	0.08	Jajpur ..	2.47
Khondmals ..	0.11	Kendrapara ..	3.52
Ganjam Agency ..	0.14	Parlakimedi ..	0.98
Koraput ..	0.28	..	..

It would appear that the districts of Cuttack, Puri and Balasore suffered most from the disease. The severity of the disease was somewhat less in the Ganjam plains although the total number of deaths from the disease recorded in this district was comparatively high. The other areas of the Province viz.—Sambalpur, Angul, Khondmals, Ganjam agency and Koraput recorded only a few sporadic cases. Among the towns Kendrapara and Jajpur suffered most from the disease.

The disease is endemic in the coastal districts of the Province viz.—Cuttack, Puri, Balasore and Ganjam plains. The intensity of the disease usually increases from the month of May and reaches its maximum in July and gradually dwindles down in the subsequent months remaining almost constant in the months of August, September and October. This behaviour of the disease is ascribed in normal years to bad state of watersupply, heavy monsoon floods and facilities for the spread of the disease from the innumerable fairs or 'Melas' held in the Province. The nature of the epidemic in 1944 was almost the same as in previous years except that the severity of the epidemic was also felt in the coastal districts during the early part of the year due to the continuance of the general stress that prevailed in the country during the year 1943 due to food shortage.

A short resume of the steps taken to prevent a serious epidemic of cholera during the Car festivals at Puri which usually serves as the focus of infection is given in Chapter IV.

The following measures were taken to combat the epidemic.

1. Sufficient quantities of cholera vaccine and cholera phage were kept in the Provincial Reserve Stock at the Cuttack General Hospital and the indents of the Health Officers and Civil Surgeons were supplied promptly. Steps were taken to keep always in stock one lakh ccs. of cholera vaccine and sufficient phage to guard against any interruption in supply from outside.

655,500 ccs. of cholera vaccine and 7,200 ampoules of cholera phage were supplied free of cost by the Public Health Department.

2. The special staff attached to my office viz., the Special Health Inspector, the Publicity Assistant and the Nutrition Health Inspectors were deputed to the affected areas to supplement the staff of the local bodies the latter being inadequate to meet epidemic demands.

District Leprosy Staff and compounders of the out-lying hospitals and dispensaries were also mobilized for epidemic duty as and when the situation demanded.

The Medical Officers of hospitals and dispensaries were employed for the control of epidemics within a radius of 5 miles of their posts.

3. I myself and the Assistant Director of Public Health visited some of the badly affected areas and gave necessary advice to the staff employed to control the epidemics. The Assistant Director of Public Health also worked with the Health Officers in badly affected areas as help is always needed from headquarters in such epidemics.

4. At the time of Car festivals at Puri the health condition of the neighbouring provinces viz., Bihar, Bengal and Assam from where a large number of pilgrims usually come to Puri to witness the festivals, was very unsatisfactory. In fact about 3,000 attacks from cholera per week were reported from certain parts of Bihar. So it was necessary to make elaborate sanitary and preventive arrangements as in the previous years to prevent a serious epidemic of cholera at Puri which might have spread far and wide in and outside the Province.

All the Health Officers were instructed to carry out mass inoculations in the endemic areas where generally cholera epidemic breaks out after the Car festivals.

In an endemic coastal area of Cuttack district mass inoculation was carried out as an experimental measure and it was found that although cholera in epidemic form broke out around, this area was totally free from the disease.

Smallpox—The total number of deaths from smallpox in 1944 was 8,124 against 4,244 in 1943. The death rate was 1.05 as compared to 0.55 in 1943.

The towns recorded 288 deaths from smallpox giving a rate of 1.17 and the rural areas recorded 7,836 deaths with a death rate of 1.04 as compared to 0.21 and 0.56 respectively in the previous year.

The disease prevailed in a bit severe epidemic form almost throughout the year in the districts of Cuttack, Balasore and Sambalpur. The epidemic was mild in the district of Puri. The other areas of the Province were almost free from the epidemic. Among the towns the disease prevailed in epidemic form in Jajpur, Balasore and Cuttack. The other towns of the Province recorded only a few sporadic cases.

Smallpox is endemic in the whole Province. The incidence of the disease gradually increases from November when the humidity becomes low. It reaches its maximum in April and May and gradually comes down when the rains set in towards the end of June or the beginning of July.

The lower loss of life from this disease in comparison with that from cholera is due to the immunity conferred on a fair proportion of the population by mass vaccination which

has been possible due to primary vaccination being made compulsory in almost all the districts of the Province except Sambalpur, Koraput and Ganjam agency, besides revaccination in certain portions of the districts of Ganjam and Koraput.

The increased mortality in the early part of the year may be partly due to the continuance of the situation of the previous year which led to movement of people with the disease or within the incubation period in search of food.

852,780 doses of vaccine lymph were purchased by Government from the Vaccine Institute of the Government of Bihar at Namkum and were supplied free of cost for vaccination in the Province.

Government paid vaccinators are always appointed to supplement the Public Health staff of the local bodies which is never adequate to deal with epidemics. Vaccination in remote villages is a difficult problem and it is also impossible to keep lymph fresh because a vaccinator starts his journey every Monday or Tuesday and keeps visiting village after village which takes 5 days at least before return to his headquarters. All these five days vaccine lymph travels in his bag. This is unsatisfactory from the point of view of lymph potency which as we know, deteriorates rapidly. Thermosflasks could not be used as there is no ice supply. Even for town the lymph arrives after three days in post from Namkum. In order to ensure that as far as possible fresh lymph is used for vaccination, instructions have been issued to the health staff to use up the lymph within three days from the date of receipt and to destroy whatever remain unspent after that period.

Dysentery and Diarrhoea—There were 18,803 deaths from this group of diseases against 19,165 in 1943 showing a decrease of 362 deaths in 1943 and the mortality rate was 2.40 against 2.49 in 1943. The death rate for the urban areas was 4.52 and that for the rural areas was 2.36 against 4.45 and 2.42 respectively in the previous year.

The districts of Cuttack, Puri, Ganjam plains and Koraput recorded high death rates from these diseases. In other parts of the Province the death rate was low. The death rates of the different districts are given below :—

Cuttack	..	..	..	..	4.29
Ganjam plains	..	..	..	..	2.24
Puri ..	..	..	..	..	3.17
Sambalpur	..	..	..	..	1.03
Balasore	..	..	..	..	0.60
Angul ..	..	..	..	..	0.54
Khondmals	..	..	..	..	0.21
Ganjam agency	..	..	..	..	0.25
Koraput	..	..	..	..	2.61

Among the towns Puri, Kendrapara, Cuttack, Berhampur and Parlakimedi recorded high death rates and Jajpur, Balasore and Sambalpur recorded comparatively low death rates as given below :—

Cuttack	..	..	..	..	4.75
Kendrapara	..	..	..	..	5.07
Jajpur	..	..	..	..	2.02
Balasore	..	..	..	..	1.10
Puri ..	..	..	..	..	8.29
Sambalpur	..	..	..	..	1.97
Berhampur	..	..	..	..	3.89
Parlakimedi	..	..	..	..	3.39

Dysentery and diarrhoea are endemic in the coastal districts where the water supply is unsatisfactory. The incidence of these diseases usually begins to rise with the approach of the rains in July when the water sources are polluted from the surface washings and remain as such for about two months. From September the incidence gradually comes to normal. The nature of the epidemic in 1944 was almost the same as in the previous years except that the severity of the epidemic was also felt in the coastal districts during the early part of the year due to the continuance of the general stress of the previous year.

I need hardly reiterate that in order to reduce mortality under these and other water borne diseases such as cholera and typhoid it is necessary to make adequate provision for drinking water supplies and disposal of village refuse. Unless and until a scheme of water supply for the Province spread over a period of five to ten years is chalked out and executed it is not possible to control these diseases.

Respiratory diseases—4,613 deaths were recorded from respiratory diseases in the Province in 1944 against 4,821 deaths in 1943 giving a mortality rate of 0.59 against 0.62 in 1943. The death rate for the urban areas was 1.84 and that for the rural areas was 0.55 against 1.78 and 0.59 respectively in the previous year. The district of Sambalpur as in the previous years recorded a high death rate of 1.00. Among the towns Puri (2.93) Berhampur (2.71) and Kendrapara (2.32) recorded high death rates.

Deaths from Pneumonia and Pulmonary Tuberculosis which are included among these from respiratory diseases probably claim quite a big percentage of total deaths recorded under this cause.

Tuberculosis—There is only one Tuberculosis clinic in the Province situated in the premises of the Cuttack General Hospital. Under the auspices of the Provincial Tuberculosis Association and with liberal financial support of the Provincial Government this clinic began to function, pending the construction of a separate building of its own, in the out-patient department of the Cuttack General Hospital from November 1941. The new building was completed in February, 1943. The clinic has been established in the new building from 1st March 1943 and has Provision for six observation beds.

In the clinic the patients are examined clinically and X-rayed. The sputum of all the patients is examined free of charge and record of all cases is kept. The main line of treatment in the clinic consists of A. P. combined with rest and hygienic conditions. Patients requiring indoor treatment are treated in the Tuberculosis ward of the Cuttack General Hospital. Those who can afford are advised to get themselves admitted to the Tuberculosis Sanatoria at Itki and at Kasauli where the the Provincial Government have reserved beds on payment of an annual contribution.

During the year under report 428 patients including 37 carried over from the previous year, attended the clinic. The number of repeat cases was 1,931. Out of 291 new patients, 97 were detected to be suffering from pulmonary Tuberculosis, of which 77 had positive sputum, 14 negative and six clinically diagnosed. Of the 97 patients, four were in stage I, 23 in stage II and 70 in stage III. Besides there were two cases of glandular Tuberculosis and one case of intestinal Tuberculosis.

231 specimens of sputum, 20 specimens of stool, 11 specimens of urine and three specimens of blood were examined. Erythrocyte sedimentation rate was determined in 47 cases. 10 X-ray plates were taken and 279 patients were screened during the year.

Treatment—Artificial pneumothorax was started in 20 patients but in 6 of them the treatment was discontinued due to contraselective collapse or due to involvement of the contralateral lungs. Two cases did not attend for refills. In three cases it was discontinued as the disease was arrested. 286 refills were given during the year under report. Several calcium injections were given, of which 52 were given at the cost of the Association.

25 contacts were examined out of which 14 gave positive reaction to tuberculin test.

During the year 15 patients were admitted to the Tuberculosis Ward of the Cuttack General Hospital and 40 patients to the observation ward of the clinic. Four patients were sent to Sanatoria outside the Province.

36 lbs. of cod liver oil and nearly 15 mds. of milk were supplied to poor and needy patients as extra nutritive food.

The total number of cases that died during the year was 25.

There were three Health Visitors (2 males and one female) in the clinic. They visited 886 houses and delivered 163 health talks in the municipal area of the town. Besides they helped the Provincial Tuberculosis Officer in conducting artificial pneumothorax and in doing such other works as were required of them in the clinic.

Although district Association have been formed in four out of the six districts of the Province and affiliated to the Provincial Association real Tuberculosis work has not yet been started in any of them except in Ganjam district where the district Association as in the previous years raised some money by way of subscriptions and donations which was spent on publicity work. The district health staff visited several villages and delivered lectures demonstrated with magic lantern slides. Copies of the Tuberculosis Readers which were printed by the Association were distributed to the public.

As in the previous years examination of sputum sent by registered medical practitioners were done in the provincial laboratory free of charge.

CHAPTER IV

Fairs and Festivals—A large number of Melas are held in different parts of the Province. Most of these Melas are only of local interest and are attended by the people of the locality where they are held.

The most important and famous among these Meals are the Snan, the Car and the return Car festivals held in Puri. The other ceremonies connected with these are Nava Jauvan Darsan, the Nabami Darsan and the Rajbesh. These festivals attract a large number of pilgrims from all over India.

During the year 1944 these festivals were held on the following dates —

- (1) The Snan Jatra ceremony on the 6th June 1944
- (2) The Nava Jauban Darsan ceremony on the 21st June 1944
- (3) The Car festival on the 22nd June 1944
- (4) Navami Darsan ceremony on the 28th June 1944
- (5) The return Car festival on the 30th June 1944
- (6) The Rajbesh ceremony on the 2nd July 1944

The images were taken into the temple on the 3rd July 1944.

The year 1944, like the previous year, attracted a large number of pilgrims from all parts of India during all the festivals. Amidst all the prevailing unfavourable circumstances, the festival began as usual and was celebrated with all its grandeur.

Influx of pilgrims—From the fact that heavy influx took place in all the festivals held since the beginning of the year, it was expected that the gathering will be as big as that of the last year. But although it did not equal last years' figures, the congregation was in no way less dense inspite of the railway restrictions. The conditions of unrest, prevailing all over the world perhaps stimulated some religious minded people come on pilgrimage to the most coveted religious place. People rushed in by all possible routes from almost all the provinces of India. The major portion, however come from the province of Bengal. The gathering took place a few days before the Snan and Car festivals.

The total number of pilgrims that attended the festivals is roughly estimated at 82,000. The gatherings on the principal festivals were approximately as follows :—

(1) Snan Jatra	..	..	..	..	12,000
(2) Car festival	..	..	..	..	48,500
(3) Return Car	..	..	..	..	24,000

The return Car and Rajbesh ceremonies were as usual attended mostly by the pilgrims of the Province and the district interior respectively. About 7,000 pilgrims attended on the latter occasion.

The weather conditions—The average condition of the weather was rather dry and hot. The maximum shower fell on the Snan Jatra day with 1.45" of rainfall. The temperature and humidity varied between 86° to 91° and 72° to 91° respectively. The days of the Car and return Car were very hot and almost sunny with a few drops of rain towards the noon. The return Car day was intensely hot and tiresome.

Accommodation—68 lodging houses were licensed for 6,097 seats and 10 Dharmasalas were available for about 5,500 seats. The remaining pilgrims stayed with relatives, in hotels, Maths, in gardens and roadsides. The weather being dry, the pilgrims who could not get any accommodation either in authorised or unauthorised places, stayed on the Grand Road, around the Temple and on the embankments of the religious tanks.

Sanitary arrangements—At the time of the Car festivals at Puri the Health condition of the neighbouring provinces viz., Bihar, Bengal and Assam from where a large number of pilgrims usually come to Puri to witness the festivals, was very unsatisfactory. In fact about 3,000 attacks from cholera per week were reported from certain part of Bihar. So it was necessary to make elaborate sanitary and preventive arrangements during the festival period from the 5th June to the 4th July 1944 to prevent a serious epidemic of cholera at Puri which might possibly spread far and wide in the Province.

Intelligence—The Directors of Public Health of different provinces were requested to furnish this office with information regarding cholera and other infectious diseases in their provinces which immediately on receipt was communicated to the Health Officer, Puri Municipality. All the Health Officers of the Province were asked to promptly communicate information about cholera in their respective areas direct to the Health Officer, Puri municipality. Such information was necessary for paying particular attention to pilgrims coming from infected localities with a view to prevent the spread of infection.

Preventive inoculation of intending pilgrims—The Directors of Public Health of other provinces were also requested to see that the intending pilgrims from their provinces were inoculated before they left their home. All Health Officers were asked through the Chairmen of the local bodies to arrange for inspection and inoculation of the intending pilgrims to Puri at different convenient centres. The Civil Surgeons were instructed to arrange for cholera inoculation in every hospital and dispensary in their districts. Necessary instructions in this respect were issued to all Health Officers. Press notes were issued from this office as well as from some local bodies instructing the intending pilgrims to get themselves protected against cholera.

Railway authorities were requested to provide for adequate sanitary arrangements at the wayside railway stations and to make special arrangements between Bhubaneswar and Puri Railway Stations. They were also requested to arrange for medical inspection of pilgrims travelling by rail.

Local Arrangements—Arrangements were made to keep the town as well as the temple premises in as good sanitary condition as possible throughout the Mela period.

Instructions with regard to general sanitation were issued to all concerned.

In all the five approach roads to the town inoculation and medical inspection posts were established in order to protect every one entering the town against cholera and also to prevent the infection being carried into the town.

Inoculation certificates in the prescribed form were issued to persons inoculated with cholera vaccine. The owners of lodging houses and Dharmasals were instructed to admit only those pilgrims who produced inoculation certificates.

Rules regarding the duties of the staff employed in Mela work were explained to the staff in detail.

Instructions about the preventive measures were given in every lodging house and Dharmasala and the pilgrims were advised to read and understand them in their own interest and in the interest of the public at large.

The Provincial Leprosy and Health Publicity Officer and the Publicity Assistant of this Department carried out public health propaganda work with the aid of a public speech set in collaboration with the National War Front Organisation.

Arrangements were made with the Puri Joint Water Works Committee for 24 hours supply of pipe-water during the Mela period.

Arrangements to give First-aid to the injured and to treat ordinary ailments were made at six different centres of the town.

Voluntary bodies were approached for assistance in connection with the Mela duties. Definite instructions for the guidance of the volunteers were also issued.

Arrangements outside the Puri town—Outside the Puri town inoculation and inspection posts were opened at the important railway stations, service motor stands and along the important lines of communication by all the local bodies of the Province.

Disinfection of water-supplies of places where pilgrims camped was also arranged.

In the district of Puri special sanitary and preventive arrangements were made in the two pilgrim centers of Bhubaneswar and Sakhigopal and at different places on the main road Saradaipur to Puri. Arrangement to remove cholera patients to the nearest dispensaries was also made.

Field Laboratory—In order to help diagnosis for carrying on the right type of treatment and preventive measures, a field laboratory was established in the premises of the Puri Headquarters Hospital.

For this the Assistant Bacteriologist with necessary equipment from the Provincial Public Health Laboratory was deputed.

Treatment—Arrangements to isolate all cases of cholera for proper treatment were made in the Puri Government Headquarters Hospital. There was no epidemic of cholera in the festival area before the Car festival. With the arrival of pilgrims in very large numbers immediately before the Car festival a mild epidemic of cholera broke out. There were 64 attacks and 17 deaths. The epidemic was brought under control within a short period.

CHAPTER V

Urban Sanitation—There are eight municipalities in the Province with a total population of 239,476 according to the census of 1941.

Medical Officers of Health have been employed in the three larger municipalities of the Province, viz., Cuttack, Puri and Berhampur, two of them for Cuttack and Puri being first class Health Officers with D. P. H. qualification and the other one for Berhampur being a second class Health officer with L. P. H. qualification. They all belong to the Government Public Health cadre and draw pay from the Provincial revenue.

The remaining five municipalities of the Province, viz., Kendrapara, Balasore, Jajpur, Sambalpur and Parlakimedi have no Health officer. The Municipality of Parlakimedi long agreed to appoint an L. M. P. with L. P. H. qualification as its Health Officer, Government meeting half the cost of his pay ; but as a suitable candidate was not available, the appointment has not yet been made. Qualified Health Inspectors have been employed by these five municipalities to look after their sanitation.

Anti-malaria operations were carried out with Government aid in the municipalities of Cuttack, Puri, Balasore, Kendrapara, Sambalpur and Berhampur.

The Food Adulteration and the Vaccination Acts are in force in all the municipalities of the Province although the provisions of the Acts are not very strictly enforced in the areas.

Conservancy—The defects noticed in the conservancy of the municipalities and the Union Boards were invariably pointed out to the respective municipalities and union Boards at the time of inspection with instructions as to how best they could be remedied within the resources available.

As their resources are invariably slender, the action taken to improve matters is frequently ineffective.

Expenditure on Sanitation in the Municipal Towns—The statement below shows the receipts and expenditure of the municipalities for sanitary purposes during the year 1943-44 as compared to those of the previous year :—

Total number of municipalities	Total receipts including opening balance		Head of expenditure	1942-43	1943-44	Percentage of expenditure to the total receipts	
	1942-43	1943-44				1942-43	1943-44
	Rs.	Rs.		Rs.	Rs.		
8	9,44,706	8,10,138	Conservancy ..	2,20,557	2,11,971	23.3	26.2
			Drainage ..	17,210	9,552	1.8	1.2
			Water-Supply ..	47,669	5,740	5.0	0.7
			Vaccination ..	3,211	2,504	0.3	0.3
			Epidemics ..	9,132	12,463	1.0	1.5
			Markets and Fairs ..	5,561	4,809	0.6	0.6
			Other sanitary charges	2,503	2,113	3	0.2
			Public Health Staff ..	11,002	17,782	1.2	2.2
				3,16,845	2,66,934	33.5	32.9

Chief Sanitary works in the Municipal Towns—Activities relating to sanitary improvements in urban areas are included in the report of the Superintending Engineer in charge, Public Health Works, Orissa appended.

CHAPTER VI

Rural Sanitation—The districts of Cuttack (excluding Angul) Puri, Balasore, Sambalpur and Ganjam (excluding Khondmals and the Agency areas) have each a fully qualified first class Health Officer under health organisation scheme which in Ganjam plains is more elaborate and more satisfactory than in the other districts. The Health Officers of the districts of Sambalpur and Ganjam belong to the Provincial Public Health Service and those of the other three districts are District Board servants. Health Organisation Scheme is in operation also in the Ganjam agency and in the Koraput district and the Civil Surgeons are in charge of the Public Health administration there. In Koraput the Civil Surgeon is assisted by a second class Health Officer in the performance of his Public Health duties. The Public Health administration in the Angul subdivision of Cuttack district and Khondmals subdivision of Ganjam district is under the immediate charge of the Civil Surgeons of the districts concerned. Under their general supervision a Health Inspector carried out all routine public health works. There was no proper health organisation scheme functioning in the Sambalpur district. Under the control of the Civil Surgeon there was a small nucleus of Government Public Health staff consisting of four Health Inspectors, who attend to epidemics and vaccination work. A Public Health Scheme with a first class Government Health Officer and five Government Health Inspectors more or less on the lines of the Public Health Scheme obtaining in Ganjam plains has been introduced in this district from January 1943, the expenditure being met half to half by Government and the Sambalpur District Board.

Introduction of an efficient health organisation scheme under a qualified first class Health Officer is considered an urgent necessity for every district. Efficient supervision of the work of the subordinate health staff and effective control of epidemics and the development of further important public health measures are not possible in any district without such an organisation. I have reviewed the position and made my recommendations for reorganisation in the post-war scheme.

Compulsory vaccination on licensed system was introduced as an experimental measure in the rural areas of the districts of Cuttack, Puri and Balasore in 1941. Government have sanctioned the continuance of the scheme for a further period of five years from 1942-43 to 1946-47.

No change has yet been effected in the system of registration, collection and transmission of vital statistics in the rural areas, which still continues to work unsatisfactorily as before. The Bengal Births and Deaths Registration Act has not been extended to the rural areas of North Orissa and the Madras Births and Deaths Registrations Act has been

extended only to some villages of the Ganjam plains. As already mentioned elsewhere a scheme for a thorough and complete registration of vital occurrences in the Province as a whole is considered to be both necessary and important not only for the Public Health Department but also for all general administrative purposes. I have already reviewed this question and have made my recommendations to Government.

The Orissa Prevention of Adulteration and Control of Sale of Food Act, 1938 came into operation in the urban and semi-urban areas of the Province in 1941. It has not yet been enforced in the rural areas of the Province except in a few villages around the aerodromes at Chowduar and Jharsuguda. In order to safeguard the Health of the rural population the introduction of the Act in the rural areas is considered very necessary.

With a view to prevent soil pollution which is widely prevalent in the rural areas, it is considered an urgent necessity to introduce bore-hole and trench latrines which are cheap, highly efficient and easy to construct requiring minimum of attention. Attempts are being made to popularise such latrines in the rural areas by Public Health Propaganda and Demonstration.

Expenditure on sanitation by the District Boards—The following statement shows the receipts and expenditure of the District Boards for sanitary purposes during the year 1943-44 as compared to those of the previous year.

Number of District Boards	Total receipts including opening balance		Head of expenditure	1942-43	1943-44	Percentage of expenditure to the total receipts	
	1942-43	1943-44				1942-43	1943-44
1	2	3	4	5	6	7	8
	Rs.	Rs.		Rs.	Rs.		
6	25,57,489	25,05,187	Conservancy ..	14,291	25,728	0.5	1.0
			Drainage ..	304	1,185	0.01	0.1
			Water-supply ..	22,540	11,891	0.9	0.5
			Vaccination ..	36,479	32,727	1.4	1.3
			Epidemics ..	4,802	7,936	0.2	0.3
			Markets and Fairs ..	10,133	8,978	0.4	0.3
			Other sanitary charges	4,683	..	0.2	..
			Public Health Staff ..	84,346	94,947	3.3	3.8
			Total ..	1,77,578	1,83,392	6.9	7.8

CHAPTER VII

Fevers—In 1944 fevers alone accounted for 129,273 deaths out of a total of 235,581 deaths from all causes. This constitutes 54.87 of the total mortality.

The number of deaths from fevers recorded in 1944 shows an increase of 11,573 deaths over that of 1943. The death rate was 16.66 as compared to 15.27 in 1943.

The towns recorded 1,873 deaths from fevers giving a rate of 7.58 and the rural areas 1,27,400 deaths with a death rate of 16.96 as compared to 9.20 and 15.47 respectively during the previous year.

Very high death rates were recorded in Khondmals, 27.67, Balasore district, 22.21 and Ganjam plains 21.82.

It would appear from the above figures that fever is still the chief cause of mortality in the Province. A number of diseases in which the rise of temperature is a marked symptom continue to be grouped under the general heading "fevers". As the births and deaths registration is not compulsory in the rural areas and the agency through which vital statistics are collected is not educated and intelligent enough to correctly ascertain the cause of death, separate figures for deaths caused by different kinds of fevers, viz., Malaria, Enteric fever, measles, relapsing fever, Kala-azar, Influenza, Typhoid, Cerebrospinal fever, etc., are not maintained; but experience shows that the bulk of deaths from fevers is due to malaria.

Malaria—The malaria problem of Orissa is extremely varied and complex. While the coastal belt is subject to periodical epidemics, malaria is endemic in the deltaic areas of Balasore, Cuttack and Puri districts and hyper-endemic in the agency tracts of Ganjam and Koraput and also a greater part of the Angul subdivision.

In the districts of Cuttack, Puri and Balasore and in Ganjam plains the incidence of malaria generally reaches its maximum in winter and is comparatively less at other times, the minimum being recorded in June and July. In the fore-shore of the Chilka lake, however, another rise in the incidence of malaria is recorded in summer. Similarly in the agency areas of Ganjam and Koraput as well as in Angul and Khondmals the incidence of the disease rise during the summer months, i.e., in April and May.

Separate figures for morbidity and mortality from malaria alone are not available. The only index on which one can rely for estimating the incidence of this disease is the figure obtained for total mortality under 'all fevers'. Under this head 130,180 deaths were recorded during 1944 against 117,700 in 1943. The high mortality is attributable to lowered resistance of the people due to shortage of foodgrains and abnormal rise in their prices.

Anti-larval operations were carried out at Government cost at Koraput, Jeypore, Malkangiri, Pottangi, Bissemcuttack and Nandapur in the district of Koraput.

In all these centres paris greening of breeding places of mosquitoes, canalisation of stagnant waters and weed clearing were done. Systematic spraying of pyrethrum extract was not practised as no pyrethrum is being released for civil use which is very disappointing. The need for the extract is keenly felt among the civil population which merits seriously consideration.

D. D. T.—Recent researches have shown that D. D. T. is a both powerful insecticide and larvicide which can control malaria and other allied insect borne disease economically and efficiently. Circulars have been issued to local bodies and officers of medical and Public Health Departments recommending its use intensively. Arrangements are being made for its supply for civilian use shortly.

Anti-mosquito schemes were also carried out with Government aid in the Municipalities of Cuttack, Puri, Balasore, Kendrapara, Berhampur and Sambalpur. Anti-mosquito measures were handicapped by lack of pyrethrum extract.

At Balugaon in the district of Puri malaria broke out in epidemic form during the summer months and several deaths were recorded. As a measure of control, free distribution of quinine and quinine substitutes was done in the affected areas by appointing one temporary epidemic doctor and two temporary Health Inspectors.

The weed clearance operation from the Chilka lake coast was done in the villages Baula-bandha and Balugaon. In the latter the work was done by the B.-N. Railway staff and the District Board extended the areas of operation towards south for about $\frac{1}{2}$ mile. Though this is a temporary measure the people have appreciated the result and show eagerness for such measure whenever malaria breaks out in the locality.

In Ganjam plains there was wide spread epidemic of malaria in Chatrapur, Berhampur (South) Berhampur (North) and Kodala ranges during the year. For the group of villages round about Hinjili in the Chatrapur range an emergency hospital was opened for about 2½ months, in addition to other anti-malaria measures viz., distribution of quinine, clearance of weeds, etc. The situation was also complicated for want of food and consequent nutritional disorders. The epidemic was however brought under control in a short time.

For the emergency hospital Government deputed a medical officer, one compounder and three nursing assistants and the District Board supplied medical staff, medicines, diet, etc., at a cost of Rs. 1,050-15-3 besides quinine which was supplied from the stock of the District Health Officer. The District Board also spent a further sum of Rs. 263-3-0 in anti-mosquito operations.

Again in October serious epidemics being reported in Chatrapur and Berhampur (North) ranges, another team of special staff was engaged to assist patients in villages under the supervision of local medical officers and health inspectors.

In Balasore malaria prevailed in more or less epidemic form throughout the district. Quinine and its substitutes were distributed through the Public Health staff and the medical officers of dispensaries. One temporary dispensary was established at Pratappur in North Balasore to give relief to the cyclone-affected people.

In Balasore town an enquiry into the actual anopheles vector responsible for transmission of malaria and its habits, etc., was carried out and it is found that anopheles annularis is the vector. The Superintendent of Proof and Experiment Station of Balasore rendered substantial help towards the cost of cleaning of water vegetations from tanks of Balasore town as advised by the Public Health Department. The present system of supplementing local bodies who never have adequate funds or staff is not satisfactory. Unfortunately however the local bodies are legally responsible for medical aid and disease prevention and at present Government can only help by advice, funds and extra staff. It is felt that

centralisation in Government hands is the only satisfactory method of handling the problem of disease prevention, especially epidemics, and with that end in view, proposals have been embodied in the post-war plans for the provincialisation of the entire Public Health personnel.

Anti-malaria drainage works, Koraput—The anti-malaria drainage works at Koraput after being completed by the Public Works Department was transferred to the Public Health Department for maintenance. I inspected the Engineering and Public Health aspects of the anti-malaria scheme in May 1943. As a result of my inspection, minor repair works to the several drains had to be carried out and a Health Inspector with training in Malaria was appointed. The Assistant Malaria Officer and one Insect Collector from Provincial Malaria staff were transferred for proper investigation and to remain in direct charge of the anti-malaria operation of the place.

The Assistant Malaria Officer and the Insect Collector were withdrawn in August 1944 and the anti-malaria operation of the place was carried out by the Malaria Health Inspector under the supervision of the Civil Surgeon, Koraput. The Engineering aspect of the anti-malaria drainage work was looked after by the Public Works Department.

Gambusia hatchery—Gambusia hatcheries have been started in Puri, Cuttack, Berhampur and Koraput and steps are being taken to start such hatcheries at other district headquarters of the Province.

Activities of the Provincial Malaria Unit—The Provincial malaria unit has been attached to my office since July 1943. The unit carried out rapid surveys in such of the places that reported epidemic malaria and recommended measures to local bodies to control them. Investigation regarding the infiltration of *A. sudaicus* in the Orissa coast was continued and its presence has been now established even in interior villages situated at a distance of 20 to 25 miles from the Chilka coast. Surveys in Lakshmananath and Balasore town in Balasore district, Balugaon of Puri district, Hinjilikot and the neighbouring group of villages in Ganjam district and in Jeypore and Koraput in Koraput district were carried out.

In addition to investigations and surveys the Provincial Malaria Officer had to supervise the anti-malarial operations in Cuttack and Berhampur Municipalities to which Government have sanctioned grants. He also made frequent inspections and supervised the anti-malarial work in Koraput, Jeypore, Pottangi and other places to which Government have sanctioned money for anti-malarial measures.

CHAPTER VIII

Maternity and Child Welfare Work—During the year under review the Maternity and Child Welfare Centres at Cuttack and Berhampur and Sambalpur continued to function each under the supervision of a qualified Health Visitor. Eleven more centres carried on their activities at the following places :—

(1) Puri, (2) Balasore, (3) Koraput, (4) Umerkote, (5) Jeypore, (6) Rayaghada, (7) Russelkonda, (8) Khurda, (9) Bhadrak, (10) Hatigarh and Bargarh.

At Purushottampur, Tirtol and Chaudwar new centres were established with a trained Dai in charge of each.

A summary of the activities of the centres is given below :—

Cuttack Centre—The Lady Hubback Maternity and Child Welfare Centre which received adequate financial assistance from Government rendered midwifery service in the town and served nearly half the population of the Cuttack Municipal area. Antenatal and postnatal clinics were held regularly and with the appointment of a Health Visitor in October 1944 paid from Provincial Red Cross Funds, the usefulness of the centre particularly in regard to health propaganda and community welfare was considerably enhanced.

The maternity supervisor and the midwifery staff conducted 653 confinements and paid 3,012 home visits in the town. They also distributed dried milk supplied by the Red Cross to needy women and children who visited the centre.

Berhampur Centre—This centre is financed largely from Municipal funds and is managed by a committee. No change in the staff occurred during the year and the centre continued to do excellent work for the people of the town. Milk was distributed to deserving mothers and infants who visited the centre. Government have given the committee the free services of a Health Visitor for this centre.

The Health Visitor, Berhampur Centre, paid 2,017 antenatal and postnatal visits. The income of the centre was Rs. 1,959-6-0 against an expenditure of Rs. 1,304-14-0.

Sambalpur Centre—The centre is only financed by the Sambalpur Municipality and the District Board, Sambalpur. A fine centre building is under construction. It is further proposed to construct a Maternity Home attached to the centre building and attempts are being made to raise funds amounting to Rs. 40,000 for this purpose. As in previous years the staff carried on maternal and infant care and community welfare work in the town and

distributed milk to indigent mothers and infants who visited the centre. Government have sanctioned a post of Health Visitor for the Centre and when the building is complete the services of a Health Visitor will be provided.

Puri Centre—The maternity staff are maintained entirely by the Puri Municipality who carried on maternity and child welfare work in the town. Government have sanctioned a post of Health Visitor to remain in charge of the centre and an attempt is being made to open the centre early in 1945. An influential committee has been set up.

Balasore Centre—This centre with its staff of four Dais is financed largely by Government. The woman doctor attached to the Headquarters Hospital, Balasore, supervised the maternity service provided by the trained Dais. Local subscriptions have increased and it is hoped that the centre will function in a separate building early in 1945.

Koraput Centre—The welfare programme was conducted under the guidance of the Assistant Health Officer, Koraput and maternity work was carried out by a midwife, who also distributed dried milk and nourishment in the town and neighbouring villages.

Umerkote Centre—This institution which caters for the needs of some 50,000 people in Nowrangapur taluk is maintained entirely by the public and is in charge of a midwife. Seventy confinements were conducted and 1,301 home visits were made in this area.

Khurda Centre—The Dai employed for the centre by the Union Board, Khurda, conducted 148 confinements and paid 4,204 visits. A scheme for the establishment of a maternity and child welfare centre at this place has been engaging the attention of the local bodies concerned and it is hoped that the centre will function in 1945.

Bargarh Centre—The centre building is under construction. During the year under report the Dufferin Fund, Orissa, sanctioned a post of midwife for the centre, but due to non-availability of a qualified midwife it is proposed to appoint a Dai for the present. The Indian Red Cross Society, Orissa contributed Rs. 200 for equipment and furniture for the centre. Lady Lewis was kind enough to give Rs. 100 for the same purpose. During the year the Dai attached to the Subdivisional Hospital, Bargarh, rendered domiciliary midwifery service in the town under the supervision of the lady doctor attached to the hospital.

The centres at Rayaghada, Russelkonda, Jeypore, Bhadrak, Hatigarh, Purushottampur, Tirtol and Chaudwar-Charbatia continued to render midwifery service in their respective areas.

Government Aid—Besides maintaining a Lady Doctor at the Cuttack Centre Government have sanctioned a post of Health Visitor for each of the centres at Berhampur, Sambalpur, Puri and one for the Ganjam District Maternity Scheme. During the year under report Government again sanctioned Rs. 2,000 for the maintenance of the Cuttack Centre and Rs. 600 for the upkeep of the Balasore Centre.

Improvement to Maternity and Child Welfare Service in the Province—Detailed instructions were issued to all hospitals to which a woman doctor is attached, that weekly prenatal and postnatal clinic of a standard type must be held at the hospitals and where a Health Visitor is employed at the local welfare centre that she also must be present at these clinics and provide a link with the homes. Prenatal and infants card have been drawn up and approved by Government. They are now in the press and will be issued free to all centres and hospital clinics in order that uniform records can be obtained. New record forms for returns are also in print.

Instructions regarding the conduct of district midwifery service and supervision of Dais have also been issued. All municipal authorities in areas where no welfare centre exists have been addressed to place the trained Dais, employed by them for domiciliary midwifery service under the supervision of the woman doctor attached to the local hospital who will receive a conveyance allowance for this purpose. In the larger towns where there is a welfare centre, arrangements have been made for a woman doctor to hold a prenatal clinic there once a week.

The routine programme of a welfare centre and the duties of the Health Visitor have been drawn up and issued for adoption in all centres.

A Midwifery School providing a two-year's course with a programme on up-to-date lines was established at Berhampur in 1944 to train six candidates annually. It is of good augur that girls of good family and of various communities have come forward in adequate numbers as pupils. The first batch of Orissa trained midwives will qualify in September 1946. In this project the Countess of Dufferin Fund, Orissa, has given considerable financial assistance to provide amenities to the pupils of the school and in meeting a large share of the cost of printing an Oriya translation of 'A text-book of Midwifery for Nurses'.

A proposal to start a Health School at Cuttack is engaging my attention.

CHAPTER IX

School Hygiene and Medical Examination of School Children

Government maintain a School Medical Officer of the Provincial Public Health Service and an Assistant School Medical Officer for medical examination of students of all high schools and middle schools situated in the urban areas. The students of the middle schools in the rural areas are examined by the District Board Dispensary Doctors. Medical examination of girl students reading in the schools situated in the towns of Cuttack, Berhampur and Parlakimedi is done by Government Lady Doctors employed at the Headquarters Hospitals in these towns. No medical examination of school children in primary schools is carried out as the number of such schools is too large to be included in the scheme.

School Medical Examination by Government Medical staff—Medical examination of school children was conducted in 54 schools, 45 being high schools and 9 urban middle schools as compared to 42 high schools and 11 urban middle schools in the year 1943. A total number of 7,290 students were examined against 8,204 in 1943. Of these students 7,026 were examined in detail and 264 in parade against 5,869 and 2,335 respectively in 1943. The total number of defective students with one or more defects on their person was 4,810 or 65.98 per cent against 5,255 or 64.05 per cent in 1943. Out of these 4,650 were detected in the detailed examination and 160 in the parade examination. The defective students were duly recommended for treatment. Out of the 1,786 old defectives examined 1,089 or 61 per cent were found to have been benefited by treatment. The common defects detected by the School Medical staff among the students examined are as follows :—

	Per cent
Scholars with enlarged tonsils.. ..	12.2
Scholars with enlarged spleen	12.2
Scholars with scabies	10.6
Scholars with Vitamin deficiencies	8.7
Scholars with granular lids	6.8
Scholars with defective sight	6.6
Scholars with phimosis	6.1
Scholars with carious teeth	5.9
Scholars with other defects	4.4
Scholars with pyorrhoea	4.2
Scholars with anaemia	2.8
Scholars with spinal curvature	2.5
Scholars with ringworm	1.6
Scholars with hydrocele	1.5
Scholars with hernia	1.0
Scholars with stoop shoulder	0.9
Scholars with leprosy	0.9

Medical Examination—Medical examination of the scholars at a school usually consists of a detailed examination of the new entrants and the defectives of the previous year, and a parade examination of the rest. The detailed medical examination of the new entrants and the old defectives includes general clinical examination of the whole body, heart lungs with special attention to the septic foci in the ear, nose and oral cavity, test for normal vision, examination of entire skin surface to exclude contagious skin diseases particularly leprosy and examination of the genitalia.

The parade examination of the old non-defective students is intended to detect at the earliest opportunity any disease or defect that has appeared after the last medical examination.

A new feature in the medical examination in 1944 was an effort to investigate the extent to which malnutrition is responsible for intestinal infections in the school children of the town of Cuttack. Microscopical examination of the faeces of ill nourished children was taken up in the different high and middle schools of the town by the School Medical Officer himself. It was observed that 70 per cent of the ill nourished children were rearing one or more intestinal infections.

Records of defects and arrangement for treatment—The School Medical Officer records the findings of his examination in the respective health cards of the students. The Headmaster communicates the defects pointed out by the School Medical Officer to the guardian concerned, with the request to place their wards under proper treatment. In case where the guardians are unable to afford for treatment, on account of their poverty, the Headmaster requests the Medical Officer in charge of the local hospital or dispensary to treat such boys free. Particular attention is given to students suffering from leprosy. The infective cases are advised to be excluded from the school in the interest of other students and to undergo regular and systematic treatment.

School Medical Examination in rural areas—In the rural areas the District Board Dispensary Doctors visited 46 middle schools and examined 2,678 students of whom 1,034 or 38.61 per cent were found defective and were advised to undergo treatment. They delivered 43 lectures to the students of these schools.

Lectures on hygiene in high schools—Under the regulations of the Patna University each student going up for the Matriculation Examination has to attend a minimum number of 10 lectures on hygiene to be delivered by a medical man not below the rank of an Assistant Surgeon. The School Medical Officer, therefore, delivers a course of 12 lectures in two years to the students of the Matriculation classes of the high schools of North Orissa. Elementary Anatomy and Physiology, personal hygiene, nutrition, village sanitation, epidemics and infectious diseases usually form the subjects of the lectures. The total number of such lectures delivered during the year was 254 against 216 in 1943.

Sanitary inspection of school and hostel premises—The School Medical Officer inspected the sanitary condition of the schools and hostels during his visit, pointed out the defects and suggested necessary corrections to the school authorities. The total number of school and hostel premises inspected during the year was 99.

Vacation course of lectures for the teachers of Primary schools—When the schools close for summer vacation the School Medical Officer and his Assistant deliver a series of lectures of Public Health interest to the teachers of the primary schools. Usually one centre is selected in each district of the Province and the teachers of the primary schools from a radius of 10 to 20 miles attend the lectures. The local inspecting officers of the Education Department also attend.

The course continues for three days during which various topics of Public Health interest are discussed and these subjects are demonstrated to them with the aid of magic lantern slides. Though the course is a short one, it is very instructive to the teachers of the primary schools who are the proper agents to bring home to the masses the latest ideas of hygienic living and thereby add a good deal to the education of the mass on the principles of Public Health. During the year under report this lecture was given at six different centres of the Province.

Doctor teachers—The scheme of appointing doctor teachers were introduced five years ago. So far doctor teachers have been appointed on the teaching staff of only five high English schools in the Province. As they are required to teach non-medical subjects such as history and grammar, etc., in the school, it is noticed that they are not of real use to the students so far as treatment of their minor ailments and improvement of their health and health sense are concerned. It is desirable that the schools having a doctor on the teaching staff should have a stock of medicines for treatment of minor ailments of the students, and health education to inculcate health sense among the students should form the major portion of their duty.

Provision for treatment—It is noticed that at present in most cases arrangement is not made by the guardians to treat the defects pointed out by the School Medical Officer during his inspection. In accordance with recommendations of the Central Advisory Board of Health it is desirable to establish school clinics in the urban areas and hold special sessions for students in hospitals and dispensaries in the rural areas to give proper treatment to the students.

Malnutrition and vitamin deficiency—Nutritional deficiency amongst the students has been a problem in this Province. During the year under report 19 per cent of students were found with distinct signs of malnutrition and 8.7 per cent with marked signs of avitaminosis. Provision was made in many schools to supply some nourishing tiffin, milk and calcium lactate to the students; but due to high price of the food-materials, the practice has been given up in most of the schools. Some of the schools however distributed dried milk and multivitamin tablets supplied by this Department.

Students unprotected against smallpox—5.1 per cent of the students were found to be unprotected against smallpox. Compulsory primary and revaccination may be introduced in the schools and the headmasters may take particular care at the time of admission of students to see that the non-vaccinated boys, who are potential source of danger to others, are not admitted into the school.

CHAPTER X

Health propaganda—There was only one Health Publicity Assistant of the status of a Health Inspector attached to my office for Public Health publicity work. This arrangement was not satisfactory as with his limited knowledge and experience he could not be expected to satisfactorily manage such important work. With a view to improve the Health publicity work the appointment of a Provincial Leprosy and Health Publicity Officer was made during the year under report.

Several press notes on Health and Hygiene were issued by this Department and lectures on health subjects were given by the Publicity Assistant and other Public Health staff to the people.

Public Health propaganda with and without magic lantern demonstrations and by organisation of health and baby weeks in important rural centres was as usual carried out during the year.

Public Health stalls were fitted to the combined Agricultural and Industrial Exhibitions held at Sambalpur, Jajpur, Orda-fatepur and Remuna and a Public Health Exhibition was held at Surada during the year where some of the activities of the Public Health Department were exhibited.

Films on different health subjects were brought on loan from the Red Cross Film Circulating Library, New Delhi and exhibited in the Cinema Halls in different towns of the Province. They were largely attended and had a good effect in educating the Public Health matters.

CHAPTER XI

Public Health Administration—During the year under report the post of the Provincial Leprosy Relief Officer was converted to that of the Provincial Leprosy and Health Publicity Officer and a senior Health Officer was appointed to this post with effect from the 3rd June 1944. Seven District Leprosy Officers who were formerly paid from the funds of the Provincial Leprosy Relief Association were also brought on to the cadre of the Subordinate Public Health Service and were designated as District Leprosy and Epidemic Officers from the 1st April 1945. Besides the regular staff of medical officers of health, Sub-Assistant Surgeons, Health Inspectors and Vaccinators, additional staff were employed temporarily for epidemic duty as and when required.

The local bodies are responsible for the public health and sanitary requirements of the areas in their charge and they have maintained their minimum requirement of staff for Public Health administration of their respective areas.

The statement below shows the receipts and expenditure under the head '39—Public Health (Medical)' for the year 1944-45:—

Head	Receipt		Head of Expenditure	1943-44		1944-45	
	1943-44	1944-45		Budget provision	Expenditure	Budget provision	Expenditure
	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
Sale-proceeds of sera and vaccine and other receipts.			Public Health establishment.	80,830	77,237	90,428	90,314
			Medical examination of Scholars and teaching of Hygiene in High schools.	6,982	6,788	8,014	7,623
			Malaria ..	12,764	13,462	13,598	13,564
			Other epidemic diseases.	58,544	56,090	46,520	45,618
			Publicity Campaign.	1,776	1,775	21,696	21,515
			Bacteriological Laboratory.	21,286	21,284	22,735	22,883
			Grants to District Boards and Municipalities for Public Health purposes.	67,509	66,500	99,321	85,069
			Contribution to Pasteur Institute for vaccines.	2,000	1,828	1,940	1,857
			Malaria Committee ..	188	173		
			Diet Survey ..	1,696	1,582	2,442	2,014
			Total ..	2,53,575	2,46,719	3,16,694	2,90,457

CHAPTER XII

Vaccination

The system of vaccination in the Province—Primary vaccination is compulsory in all the Municipalities of North Orissa and in the districts of Cuttack, Puri and Balasore. In Ganjam plains including the municipalities and in the Union Board areas of Koraput both primary and revaccination are compulsory. In the other areas of the Province vaccination is not compulsory.

Vaccination is performed by paid vaccinators in the urban areas of the Province and the rural areas of the districts of Ganjam (including Khondmals) and Koraput. Licensed vaccinators are employed to perform vaccination in the other parts of the Province, viz., the rural areas of the districts of Cuttack, Puri, Balasore and Sambalpur.

In the district of Sambalpur and the Angul subdivision of the Cuttack district where vaccination is not compulsory and is performed by licensed vaccinators, the vaccinator is allowed to charge a fee of Re. 0-2-0 for each successful vaccination. In the districts of Cuttack (excluding Angul), Puri and Balasore where it is compulsory and is performed by licensed vaccinators, the licensed vaccinator is allowed to charge a fee of Re. 0-2-0 for each successful vaccination, and a fee of Re. 0-4-0 for more than one such vaccination in a family performed at home. Vaccination is however given free of charge at the public vaccination depots, which have been located at convenient centres of the districts of Cuttack, Puri and Balasore to which the Bengal Vaccination Act has been extended.

In the non-compulsory areas paid vaccinators were employed as usual by the local bodies for short periods to deal with outbreaks of smallpox. At the time of epidemics of smallpox, temporary paid vaccinators were also as usual appointed by Government.

Compulsory vaccination introduced in the rural areas of Cuttack, Puri and Balasore districts is working satisfactorily.

The Strength of the Vaccination Establishment—The total number of vaccinators employed in 1944 was 307 against 321 in 1943. Out of them 14 were employed in the towns and 293 in the rural areas.

Primary vaccination—The total number of primary vaccinations performed in 1944 was 233,276 as compared to 238,609 in 1943 showing a decrease of 5,333 in 1944. Out of 233,276 primary vaccinations, the results of 211,267 cases only were known. In the remaining 22,009 cases the results could not be ascertained. Out of 211,267 cases of primary vaccination in which the results were known 196,261 or 92.90 per cent were successful and 15,006 or 7.10 per cent were unsuccessful.

Out of 196,261 successful cases of primary vaccination 40,261 or 20.51 per cent were infants under one year of age. 113,649 were children between the ages of one to six years of age.

Revaccination—848,734 persons were revaccinated in 1944 as against 805,712 in 1943 showing an increase of 43,022.

Out of 848,734 revaccinations the result of 607,103 cases only were known. In the remaining 241,631 cases the results could not be ascertained.

Out of 607,103 cases of revaccination in which the results were known 315,437 or 51.96 per cent were successful and 291,666 or 48.04 per cent were unsuccessful presumably due to immunity from the original vaccination.

Details of vaccination work—The details of vaccination work in the different districts and towns are given in the vaccination statements appended to this report, which also contain information regarding the work done by the vaccination staff and the other agencies.

Cost of vaccination—The cost of vaccine excluding the cost of vaccine lymph was Rs. 66,317-1-10 as compared to Rs. 64,393-7-2 in 1943. The average cost of each successful case of vaccination in 1944 was the same as in 1943, viz., Re. 0-2-1 excluding the cost of lymph and Re. 0-2-9 including the cost of lymph.

Vaccine lymph—As no arrangement exists in this Province for the manufacture of vaccine lymph, the requirement of vaccine lymph is purchased from the vaccine institute of the Government of Bihar at Namkum and supplied free of charge in the Province. 852,780 doses of vaccine lymph were purchased by Government at a cost of Rs. 22,207-13-0 during 1944.

Method of vaccination—Vaccination operations are performed with rotary lancets in the districts of Ganjam and Koraput as well as in some of the municipalities and with ordinary bleeding lancets in the rest of the Province.

Post-vaccinal complications—No complaint of post-vaccinal encephalities or any other post-vaccinal complication was received in 1944.

CAPTER XIII

The Provincial pathological and Public Health Laboratory

The total number of samples examined in the Laboratory was 13,137 in 1944 against 8,488 in 1943. Of these 224 were samples of water, 328 were samples of foodstuffs and 12,585 were pathological specimens including specimens of blood tested in connection with blood transfusion service.

Water—Of the total number of 224 samples of water against 248 samples examined in 1943, 112 were examined chemically and 112 bacteriologically. 24 of them were from sources of military importance. Samples obtained from the Waterworks of Puri, the Cuttack General Hospital and the Ravenshaw College were uniformly found to be highly satisfactory.

Foodstuffs—Of the total number of 328 samples of foodstuffs against the same number of food samples examined in 1943, 155 were found genuine and 154 adulterated, the percentage of adulteration being 47 per cent against 45.43 of the previous year. On 19 samples no opinion could be given due either to inadequate quantity of the sample sent or to want of prescribed standard or to breakage during transit.

Pathological Section—Work on the Pathological side is increasing year after year. In all 12,585 specimens were examined against 7,912 in 1943 and 5,464 in 1942. Samples were received from all over the Province. A short resume of the work carried out is given below :—

(a) **Serological and Biochemical Examination**—Wasserman and Kahn tests are usually done once a week, but in urgent cases Kahn test only is done on demand.

The total number of Wasserman reactions and Kahn tests done during the year were respectively 2,350 and 2,359.

Agglutination test was done in 1,277 cases. Biochemical examinations were done as usual.

(b) **Bacteriological cultures and preparation of autogenous vaccine**—Cultural examination of blood was done in 23 cases. In one strepto-coccus haemolyticus were isolated. The rest were found negative.

Cultures were also made from throat swabs, sputum, urine, stool, pus, etc., to arrive at correct diagnosis. In each case biochemical reaction was tested and in certain cases confirmation was made by agglutination test and animal inoculation.

(c) **Clinical examination of specimens**—This consists of routine examination of urine, stool, sputum, blood, etc.

On the recommendation of qualified medical practitioners examination of sputum of suspected cases of Tuberculosis is done free of charge in the Laboratory. During the year 1944, 51 specimens of sputum were examined.

(d) **Tissue section**—41 specimens of tissue sections were examined.

Blood Transfusion Service—

Number of bleeding	236
Quantity of blood collected during the year	52,040 C.C.S.
Quantity of serum in store up to the 31st December 1944	13,200 C.C.S.
after some being discarded (this includes the stock of the last year).	
Blood grouping	270
Blood matching	8
Wasserman reaction and Kahn tests done in connection with Blood Transfusion Service.	472
Haemoglobin percentage	370
Thorough physical examination volunteers	400
Recording of blood pressure	320

Places visited in connection with Blood Transfusion Service Angul and Berhampur

Other activities—(1) A field unit was deputed to Puri during the Car festival to carry out investigation of cases of cholera.

(2) Investigation into the cause of death of some inmates of the Leper Asylum, Cuttack with signs and symptoms simulating to plague was made. All the inmates were thoroughly examined and it was ascertained that deaths were due to septicaemia after filariasis.

(3) The Laboratory undertook to impart practical training in Laboratory works to a Sub-Assistant Surgeon and a Laboratory Assistant of the Keonjhar State.

The Laboratory has been equipped with a gas plant which is working since November 1944.

CHAPTER XIV

Other Public Health Services and General Remarks

Enteric fevers and Cerebro-spinal Meningitis—As already reported in the previous reports facility for the collection of statistics for these two kinds of infectious diseases separately for the purposes of the Public Health report does not exist; but the hospital figures show that the enteric group of infections form a fair proportion of cases diagnosed as 'Fevers'.

Cerebro-spinal meningitis occurs rarely in this Province and has not so far occurred in epidemic form to call for any special attention.

Leprosy—Anti-leprosy campaign was launched under the Provincial Leprosy Relief Association in this Province in the year 1938. Survey, propaganda, treatment and isolation were main features of the work.

Surveys were carried out by the District Leprosy Officers and Leprosy Assistants (both male and female). Propaganda was done by the Leprosy staff and the Provincial Leprosy Relief Officer attached to my office. It consisted of lectures with and without demonstration of magic lantern slides, exhibition of coloured charts and posters in Melas and exhibitions, etc., distribution of specially prepared pamphlets and literature on leprosy, observation of leprosy weeks, etc. Treatment was given in all hospitals and dispensaries and in rural clinics established by the Association in areas where there are no hospitals or dispensaries. Isolation was effected as far as possible in leper asylums and leper colonies and in village isolation sheds. Wherever possible home isolation was also done.

The whole position was reviewed by me in 1943 and the scheme was reorganised in 1944. According to the revised scheme anti-leprosy work was conducted on the following lines.

Survey—Further survey was not considered necessary and was therefore discontinued as a part of the routine work of the anti-leprosy staff because the data already collected are sufficient to give an idea of the magnitude of the problem to be tackled. It may be necessary to carry out resurvey after a certain period to determine the result of the work achieved in the areas where the scheme is working.

Propaganda—The leprosy staff were not considered suitable agencies for propaganda work because they are not trained in this art. This work was therefore entrusted to the Public Health staff of the districts under the guidance of the District Health Officers as the latter are intimately acquainted with every part of their respective districts and have got the necessary staff to carry out effective propaganda.

Treatment—The previous arrangement for treatment of infective and non-infective cases in all the clinics attached to the dispensaries continued. The rural clinics established under the auspices of the Provincial Leprosy Relief Association however remained under the control of the District Health Officer.

Isolation—This important aspects of prevention of leprosy which did not receive a much attention as it ought to have done has been given emphasis in the revised scheme. Amongst the three kinds of isolation, village isolation is no doubt easier as by this method more of the defects of home and institutional isolation can be eliminated; the patient has not to lead a lonely life and if he keeps away from the village he is not likely to come in contact with healthy people. This method is considered best suited to this Province with its big leprosy problem and limited resources. Obstacles in this method are unwillingness of the part of the patient, or his relatives and secondly the difficulty of maintaining isolation for an indefinite period.

The machinery for supervising the anti-leprosy campaign under the revised scheme is as follows:—

(1) A qualified Health Officer with sufficient experience has been appointed as Provincial Leprosy and Health Publicity Officer in place of the Provincial Leprosy Relief Officer.

(2) The District Leprosy Relief Officers have been made Government servants and placed at the disposal of the District Health Officers. They are designated as District Leprosy and Epidemic Officers. They mainly work for anti-leprosy campaign but are available for epidemic duty in the districts when the existing Public Health Organisation is found inadequate to deal with any epidemic.

(3) The remaining staff continue to be the employees of the Provincial Leprosy Relief Association.

The Provincial Government contributed Rs. 17,000 besides meeting the pay of the Provincial Leprosy Relief Officer and his peon as well as the pay of the District Leprosy and Epidemic Officers.

There were 171 clinics functioning in the Province during the year 1944 under the management of the various bodies as detailed below:—

(a) Maintained by District Boards and Municipalities	102
(b) Maintained by Government	29
(c) Maintained by Provincial Leprosy Relief Association	28
(d) Maintained by private bodies	12
Total	171

The following leper hospitals and isolation colonies functioned during the year under report:—

Hospitals	Accommodation	Managed by—
1. Cuttack Leper Asylum	306	Mission to lepers
2. Puri Leper colony ..	101	Local committee
<i>Leper colonies</i>		
1. Lati (Berhampur) ..	32	District Leprosy council
2. Junani (Sambalpur) ..	23	Ditto
<i>Village isolation centres</i>		
1. Bargarh (Sambalpur) ..	5	Local Committee
2. Janla (Puri) ..	10	Provincial Leprosy
3. Chitalo (Cuttack) ..	10	Relief Association
4. Kalkala (Cuttack) ..	12	Local Committee
5. Padmapur (Ganjam) ..	6	District Leprosy Council

In order to determine the effect of selective isolation a modest scheme for the establishment of an isolation colony was prepared and sent to the British Empire Leprosy Relief Association (Indian Council) for sanction of funds towards the recurring expenditure. The scheme has been approved on principle and the Central Council has already sanctioned a sum of Rs. 5,110 for one year's recurring expenses. With the experience gained it is proposed to start a net-work of such isolation colonies in certain areas of the Province which record high incidence of leprosy.

Under the Civil Defence Organisation 100 infective lepers were segregated by special notification of Government.

Filariasis—Filariasis infection is prevalent in several parts of Orissa and causes considerable suffering, deformity and disability and in some cases even death by acute inflammatory attacks. In some areas of the Province the incidence is quite high. In certain areas of Cuttack the infection rate is as high as 23 to 34 per cent of the population. Puri also shows a similar high incidence. The coastal districts comprising Cuttack, Puri and Balasore form the heaviest endemic areas. In order to assess the incidence of this disease it is important to know the exact distribution and its incidence in the different districts. Filariasis is a disease which is very difficult to cure but which could be controlled by preventive measures.

No headway was made in this Province to tackle this disease since Government decided in 1941 to pend the proposal for investigation to a later date on financial grounds. The question of providing a mobile field unit for eradicating this disease is under examination.

Yaws—Yaws is prevalent in certain parts of the districts of Koraput and Ganjam agency especially in Malkangiri, Rayagada, Gudari and Pottangi taluks of Koraput district. As early as 1937 a survey of this disease was made in 31 villages in the Malkangiri taluk which disclosed that 3 per cent of the population were affected with the disease in the locality. No systematic survey has yet been carried out. As in previous years Government sanctioned a grant of Rs. 3,000 for the treatment of yaws over and above the grants given by the respective taluk boards. The Mission Hospital at Serango also continued to receive a grant of Rs. 1,000 for the specific purpose. Government have agreed to augment this grant by Rs. 1,000 more from 1945-46.

An itinerant dispensary has been established in Malkangiri taluk of Koraput district at an average cost of Rs. 3,002 per annum. Government are also making a contribution of Rs. 500 to Konta Dispensary in Bastar state for this purpose. Another dispensary with headquarters at Motu will function soon.

The present method of tackling the problem is by treating the cases with arsenical preparation such as Thersin, etc. and the result has been satisfactory. The treatment has become definitely popular.

All possible measures are being taken to encourage patients suffering from this disease to take advantage of the treatment afforded through medical institutions in these areas.

Quinine distribution scheme—A quinine distribution scheme according to the recommendation of the quinine conference convened by the Government of India was promulgated in this Province in November 1942. According to the scheme the supply of quinine was confined to Government, Local Fund and Private Hospitals and dispensaries from the Provincial stock kept at Sambalpur. Quinine in a very limited quantity and in the form of treatment box was being sold to private medical practitioners and druggists and chemists of the Province. By this system it was not available within easy reach of the public and within their means.

In order to bring about a satisfactory method by which quinine could be made available to the public for sale at a cheaper rate and also to safeguard against any possible hoarding and profiteering arrangements were made to issue quinine in mixture form through the Civil Surgeons and Health Officers to the private practitioners, chemists and druggists for sale to the public at half anna a dose of 5 grains of quinine and the selling agencies were asked to exhibit a sign board in a conspicuous place in their shops for the information of the general public. This arrangement was also not quite adequate and with the sanction of the Provincial Government arrangement has been made to sell quinine through all medical institutions in the Province at the above price to those who can afford to pay, indigent patients being supplied with this drug free of charge. Quinine was also issued to Health Officers and Civil Surgeons for free distribution in the malaria stricken areas, due regard being paid to the instructions issued discouraging the use of this drug for prophylactic purposes.

Quinine substitutes and quinine injections—A large stock of quinine substitutes, mepacrine and quinacrine and quinine injections have also been obtained and are being supplied to hospitals and dispensaries and to private practitioners, chemists and druggists etc., for sale to the public supply of quinine injections for sale being restricted to the private practitioners only.

Sulpha-Guanidine and M and B 693—For treatment of poor patients who are exposed to various ailments particularly dysentery and influenza due to low power of resistance and starvation a consignment of sulpha-guanidine and M and B 693 was obtained. This stock is kept in my office and supplied to Health Officers and Civil Surgeons for treatment of destitutes free of charge.

Dry milk—A special consignment of 25 tons of dry milk was obtained from the Central Red Cross Society for issue to destitute children and the distribution scheme is in operation in four coastal districts of Cuttack, Puri, Balasore and Ganjam. This has benefited many cases of malnutrition.

Vitamin tablets—A free gift of 1,034,000 vitamin tablets was received from the American Friends Service Committee for free distribution to the needy in the Province. Supplies have already been made to Civil Surgeons and Health Officers for distribution as per instructions issued by me.

Notification of infectious diseases—As already reported in the previous Annual Public Health Reports the Bihar and Orissa Municipal Amendment Act of 1935 and the Madras District Municipalities Act, 1920 provide for compulsory notification of certain infectious diseases in the municipal areas. In the larger municipalities the provision of the Acts are enforced to a certain extent especially with regard to cholera and smallpox but in the smaller municipalities particularly of North Orissa these sections of the Act remain almost a dead letter, as the municipalities concerned have neither the organisation nor the desire to enforce them. As for the rural areas, there is no provision in the Bihar and Orissa Local Self-Government Act or the Madras Local Boards Act for the compulsory notification of infectious diseases.

The result is that when any infectious disease occurs in a particular area, for the lack of timely information prompt action cannot be taken by the public health authorities concerned to check its spread in good time.

I found that considerable delay, which could be avoided, occurred in the reporting of epidemic diseases. I brought this fact to the notice of the Inspector-General of Police and the Revenue Commissioner and although certain improvements are noticed since then, they do not seem to have reached the degree of efficiency required.

I have reviewed the existing system and have submitted my recommendations for improvement to Government.

Port Health Administration—There are three minor ports in the Province, viz., Gopalpur in the district of Ganjam, Chandbali in the district of Balasore and Puri town. All the ports are controlled by the Port Officer whose headquarters is at Chandbali. At the former two ports, the Medical Officers (Sub-Assistant Surgeons) in charge of the local fund dispensaries have been appointed as Port Health Officers and at Puri the Civil Surgeon is the Port Health Officer. Of these three ports Puri is a port only in name. Very rarely steamer calls at this port. No steamer called at this port in 1944. The other two ports, Chandbali which previously used to have regular shipping traffic with Calcutta and Gopalpur which previously used to have shipping traffic with Rangoon also remained closed throughout the year. The disinfecting machine at Gopalpur is being looked after by a skeleton staff maintained by the Government of India.

Rural and urban housing condition—No noteworthy improvement was effected in the urban and rural housing conditions in the Province during the year. Only in the bigger municipalities employing Health Officer, the plans for buildings are scrutinised and the sites for such buildings are inspected by the Health Officers with a view to ensure sanitary surroundings, but unfortunately the opinion of the Health Officer is not always respected.

In the rural areas conditions are anything but satisfactory. In villages people construct houses on their own lands without the least idea of a well-thought-out plan or any consideration of sanitation. Houses are generally made of mud walls and thatched roofs. They are in most cases dark and ill-ventilated and consequently damp. There is no law to regulate the construction of buildings or houses in the rural areas. Well-to-do and educated people are gradually appreciating the value of well planned houses constructed on sanitary principles. A number of such houses have sprung up here and there.

Nutrition—A small scheme for field investigation on nutrition was in operation in the Province since May 1940. During the period from May 1940 to October 1943 the nutrition staff consisting of two Health Inspectors carried out survey in some selected centres in the districts of Puri and Sambalpur and in the Angul subdivision of Cuttack district. As due to present abnormal food situation in the country the data collected are not expected to be indicative of the normal diet condition of the people and moreover, it is no good making extensive surveys without making any use of the findings, I set my hands on compiling a report of the survey so far made with a view to make attempts to improve the diet of the population based on the data available and have submitted my report to Government.

During the year under report the Nutrition Health Inspectors were engaged in making resurvey in the areas surveyed previously in order to assess the change in the nutritional condition of the people due to the abnormal food situation in the country.

Health Inspectors' Training Class—A batch of untrained subordinate public health staff employed under the local bodies and some fresh candidates was given training in Health Inspectors' course.

Precautionary measures against Yellow fever—It was considered necessary to make arrangements for isolation of Yellow Fever cases and contacts, should the disease occur in the Province. A ward or some beds have been ear-marked in certain hospitals for accommodating such cases. Necessary instructions have been issued to the Civil Surgeons to keep in readiness plans and estimates for mosquito proofing for execution if and when necessary. A few good mosquito nets have been reserved in the hospitals particularly for this purpose.

The memorandum received from the Government of India was circulated amongst all medical officers for their guidance.

Measures to reduce the risk of infection to Air Force Camps—With the establishment of Air Force Camps at Chowdwar and Jharsuguda it was considered necessary to take adequate sanitary measures to safeguard against the spread of infection to these camps. During the year under report two sanitary schemes were in operation around these camps, the entire expenditure being met by the Government of India.

Attempts were made to keep the villages lying about the aerodrome areas in as good a sanitary condition as possible. Mass inoculation and vaccination were given in these villages and other sanitary measures such as disposal of rubbish, night soil, cow dung, water-supply, etc., were also taken. I am glad to report that the camps have been free of any infection of diseases from the neighbouring villages.

St. John Activities—St. John work in the Province was very much in infancy when I took charge. The work was taken up in right earnest. Courses were arranged all over the Province for the training of members of the Public and various Government Departments and of boys and girls of educational institutions in First-aid and Home Nursing. So far 2,636 persons have been trained. 804 persons obtained First-aid certificates and 168 persons Home Nursing certificates. With the trained personnel a total number of 27 Brigade Divisions (Ambulance Cadet Ambulance, Nursing and Cadet Nursing) were formed all over the Province. These Divisions rendered very useful works in rendering First-aid to the sick and injured and providing comforts especially in the Car festivals at Puri. Some of the members of the Nursing Divisions attended the Military Wards of the Cuttack General Hospital when the work of the institution was very heavy.

The cheerful way in which the Brigade members worked is a sure impetus for the formation of more divisions and it is expected that before long the Province will have more and more trained men available in every walk of life to render First-Aid to the suffering humanity.

Public Health Legislation—Different Public Health laws and rules govern the Public Health Administration of the different component parts of the Province. Although some of these laws and rules have been amended in the provinces where they originated and also new laws have been introduced in those provinces, no headway was made to examine, amend and unify them in this Province for better Public Health administration of the Province. This has engaged my attention and I have taken up in hand the preparation of a comprehensive Public Health Act for the whole of the Province, which when promulgated is expected to improve matters.

Rural Water-Supply—Provision of safe and adequate drinking water in the rural areas is one of the most important problems awaiting solution in this Province. Outbreaks of epidemics in rural areas originate mostly from contaminated water-supply. Provision of pure water-supply in the villages will go a great way towards preventing such epidemics and reduce sickness rate in the Province.

On the recommendation of the Public Health Department Government have issued orders to restrict multiplication of insanitary tanks and to encourage sinking good masonry wells in the rural areas.

A scheme of rural water-supply by provision of masonry wells or tube-wells in the villages as a post-war measure has been accepted by Government and it is hoped that this scheme when executed will not only reduce mortality from various epidemic diseases, such as, cholera, dysentery, enteric fevers, etc., but will also help in considerably reducing mortality from many other preventible diseases by effecting general improvement in the sanitary condition of the rural areas.

Voluntary Organisations engaged in various forms of Health activities—During the Car and other important festivals at Puri the following volunteer organisations and 4 St. John Ambulance Divisions specially detailed rendered very helpful service to the pilgrims as in

the previous years such as giving First-aid, removing patients to the hospitals, supplying drinking water and in disposing of dead bodies:

- (1) Puri Seva Samity, Puri
- (2) Bharat Juvak Seva Sangha, Puri
- (3) Hindusthan Scout Association, Puri
- (4) Hindisahitya Samity, Cuttack
- (5) Bharat Sevashram Sangha, Calcutta, with all Orissa Students volunteer corps, Cuttack.

Some of these organisations rendered voluntary services throughout the year and their activities were highly appreciated.

Similar voluntary organisations of students and teachers of various educational institutions also rendered valuable service to the pilgrims at various other fairs and festivals.

Thanks are due to these volunteer organisations for their willing assistance and co-operation even at some personal discomfort and sometimes under trying circumstances.

Personal proceedings and office—I was in charge of the Department throughout the year except for the period from the 29th March to the 28th May 1944 when Major R. T. Hicks, O.B.E., I.M.S., officiated as the Director of Health and Inspector-General of Prisons as I was on leave.

Conclusion—This was another testing year which the department had to pass in a tense atmosphere that has been prevailing in the country since the outbreak of war. Food shortage and economic depression together with the heavy influx of people enhanced the gravity of the health problems already in existence or created by natural and social conditions peculiar to the Province. While the neighbouring provinces of Bihar, Bengal and some parts of Madras suffered from heavy catastrophies the Province could fortunately be prevented from sharing the same lot.

I record with pleasure the zeal and interest with which all the Public Health personnel of Government as well as of Local Bodies put in their efforts and hope they would continue to render such service. My office staff, though very limited in strength, creditably discharged their duties which the prevailing situation has multiplied manifold.

The Department is greatly indebted to Government for their encouragement and support which it never failed to obtain in developing its activities from day to day.

A. N. CHOPRA, LT.-COL., O.B.E.I.M.S.,
*Director of Health and Inspector-General
 of Prisons, Orissa*

Precis showing the Activities of Public Health Engineering Department so far as they relate to the Sanitary improvement in the rural and urban areas in the Province of Orissa for the year 1944

The Public Health Engineering works in Orissa during the year 1944 were carried out by the Executive Engineers, Southern, Ganjam and Koraput Divisions under the control of the Superintending Engineer, in charge Public Health Works, Orissa.

The following works were undertaken :—

Urban Areas—Southern Division

1. Cuttack General Hospital water supply reorganisation of R. C. tower including pipe connection.
2. Installation of gas plant for the Blood Bank in Cuttack General Hospital
3. Tulsipur Drainage Scheme
4. Water supply and sanitary installation to conversion of Sisters' Wards in Cuttack General Hospital.
5. Water-supply, sanitary installation and sewerage to Government House, Cuttack
6. Provision of wash hand basin and lavatory attached to duty room in Cuttack General Hospital.
7. Proposed water connection to air conditioning plant for operation theatre in Cuttack, General Hospital.
8. Provision of an extra 400 gallons capacity G. I. tank for supply of water to Emergency Force, Chauliaganj.
9. Fitting up hand pump to the well in the compound of Christian Training College
10. Water-supply, sanitary installation and sewage to Cabinete block in Government House, Cuttack.
11. Providing surface drain for the Police Barrack (Garage Block) in Government House, Cuttack.
12. Proposed water connection to District Magistrate's residence occupied by Revenue Commissioner, Orissa.
13. Sinking $1\frac{1}{2}$ " dia. tube-wells as a purely Emergency measure in Cuttack General Hospital compound.
14. Water connection and water flushed septic tank latrine in Puri Jail
15. Water-supply to A. R. P. (old Pilgrim Hospital), Puri
16. Proposed water connection to the Deputy Collector's residence now occupied by Subdivisional Officer, Civil, Puri.
17. Camouflaging the water tower, Puri
18. Sinking $1\frac{1}{2}$ " dia. tube-well in the compound of Puri Sadr Hospital
19. Water-supply to Stewart School, Cuttack
20. Improvement to kitchen drain in Government House, Cuttack

Rural area Southern Division

1. Sinking $1\frac{1}{2}$ " dia. tube-well at different observation posts in the Cuttack district, Puri district and Balasore district.
2. Supplementary water-supply to R. A. F. Station, Erdanga near Jagatsingpur
3. Construction of $1\frac{1}{2}$ " dia. tube-well for Baitarini Anicut
4. Sinking tube-well at Chandbali Police-station, district Balasore
5. Sinking tube-well at wireless observation post at Balighai, district Puri
6. Water-supply to R. A. F. station, Erdanga near Jagatsingpur

The following estimates submitted to Government :—

Koraput Division

1. Joint water-supply to the reserve police line in the jail and hospital compound at Koraput.
2. Estimate for providing grade walls in the Mango tope Nallah and Chindri Nallah
3. Improvement to the Jatra Gedda and the area drained by it (in connection with anti-malarial drainage works, at Koraput.
4. Revised estimate for drainage scheme for Koraput town.

Deposit Works

1. The water-supply of Berhampur Municipality was maintained in fair order by the Municipality under the general advice of this Circle. The reorganisation of the distribution system of the Berhampur Municipality which had been taken up in 1943 was completed during the year 1944 and made over to the Municipality. An estimate was sent to the Municipal Board for increasing the storage capacity of the existing lake. This is under consideration.
2. The Puri water-supply was maintained in fair order by the Municipal Board under the general advice of this Circle.
3. A forecast estimate amounting to Rs. 3,21,000 for water-supply to Parlakimedi was submitted to the Government.

APPENDIX I
Annual Form No. 1

ANNUAL FORM NO. I.—Births registered in the

1	2	3			4		
No.	Districts.	Population for which returns were received.			Number of births registered.		
		Male.	Female.	Total.	Male.	Female.	Total.
1	Cuttack	1,085,015	1,180,546	2,265,561	31,437	29,206	60,643
2	Balasore	508,541	520,889	1,029,430	12,881	12,281	25,162
3	Puri	531,494	570,445	1,101,939	15,179	14,028	29,202
4	Sambalpur	580,808	601,814	1,182,622	18,859	17,821	36,680
5	Angul	81,886	88,980	165,866	3,062	2,848	5,910
6	Khondmals	42,579	44,200	86,779	1,596	1,515	3,111
7	Ganjam Plains	637,148	755,040	1,392,188	16,772	15,724	32,496
AGENCY DISTRICTS.							
8	Ganjam	158,757	163,645	322,402	1,090	912	1,942
9	Koraput	21,038	20,648	41,686	358	331	689
Total of Agency districts ...		179,795	184,293	364,088	1,388	1,243	2,631
Total for the Province ...		3,647,256	3,941,207	7,588,473	101,174	94,661	195,835

DIX I.

districts of Orissa Province during the year 1944

5			6			7
Ratio of births per 1,000 of population.			Mean ratio of births per 1,000 during previous five years.			No.
Male.	Female.	Total.	Male.	Female.	Total.	
18.70	12.72	26.42	17.30	16.24	33.54	1
12.36	11.78	24.14	16.64	15.57	32.21	2
13.50	12.48	25.98	16.23	15.27	31.52	3
15.44	14.59	30.03	16.45	15.51	31.96	4
17.56	16.34	33.90	19.63	18.68	38.31	5
18.08	17.16	35.24	17.50	17.18	34.68	6
11.76	11.02	22.78	18.02	16.85	34.87	7
3.02	2.68	5.70	3.87	3.62	7.49	8
7.73	7.14	14.87	8.85	8.11	16.96	9
3.58	8.21	6.79	4.44	4.14	8.58	
13.04	12.20	25.24	16.49	15.49	31.98	

ANNUAL FORM No. I-A.—Births registered according to class in each town

1	2			3		
	Christians.			Hindus.		
	Male.	Female.	Total.	Male.	Female.	Total.
CUTTACK.						
Cuttack town	20	30	50	955	875	1,830
Kendrapara town	...	...	...	100	100	200
Jajpur town	...	...	...	64	49	113
Total of towns	20	80	50	1,119	1,024	2,143
Total of rural	...	2	2	29,658	27,541	57,199
Total of district	20	32	52	30,777	28,565	59,342
BALASORE.						
Balasore town	1	1	2	86	89	75
Total of rural	5	9	14	12,368	11,825	24,183
Total of district	6	10	16	12,394	11,864	24,258
PURI.						
Puri town	3	3	6	523	470	993
Total of rural	6	14	20	14,333	13,272	27,605
Total of district	9	17	26	14,856	13,742	28,598
SAMBALPUR.						
Sambalpur town	...	...	...	103	108	206
Total of rural	...	...	...	18,766	17,718	36,474
Total of district	...	...	...	18,859	17,821	36,680
ANGUL.						
Total of rural	1	1	2	3,058	2,843	5,901
Total of district	1	1	2	3,058	2,843	5,901
KHONDMAIS.						
Total of rural	1	1	2	429	385	814
Total of district	1	1	2	429	385	814
GANJAM PLAINS.						
Birhamgar town	13	9	22	724	679	1,403
Parlakimedi town	1	...	1	257	250	507
Total of towns	14	9	23	981	929	1,910
Total of rural	13	16	29	15,666	14,658	30,324
Total of district	27	25	52	16,647	15,587	32,234
AGENCY DISTRICTS.						
Ganjam	5	7	12	1,023	903	1,926
Koraput	6	14	20	389	806	64
Total of Agency districts	11	21	32	1,412	1,709	2,577
Total for the Province						
Towns	38	43	81	2,762	2,565	5,327
Rural	37	64	101	95,620	89,450	185,070
Districts	75	107	182	98,382	91,015	190,397

DIX I—contd.

and rural areas in the districts of Orissa Province during the year 1944

4			5			6			7		
Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
153	163	316	...	...	...	...	...	...	1,198	1,068	2,196
37	34	71	...	...	...	2	1	3	139	185	274
2	10	12	...	...	...	...	...	...	66	59	125
192	207	399	...	...	...	2	1	3	1,333	1,262	2,595
445	400	845	...	...	...	1	1	2	80,104	27,944	58,048
637	607	1,244	...	...	...	3	2	5	31,437	29,306	60,543
10	5	15	...	...	...	...	...	...	47	45	92
368	310	678	1	2	3	102	90	192	12,824	12,286	25,070
378	315	693	1	2	3	102	90	192	12,881	12,281	25,162
7	3	10	...	...	...	...	...	...	588	476	1,009
299	255	554	...	2	2	8	4	12	14,646	13,547	28,193
306	258	564	...	2	2	8	4	12	15,179	14,023	29,202
...	...	...	...	...	...	...	...	...	103	103	206
...	...	...	...	...	...	...	...	...	18,756	17,713	36,474
...	...	...	...	...	...	...	...	...	18,859	17,831	36,690
3	4	7	...	...	...	...	...	...	8,062	2,848	5,910
3	4	7	...	...	...	...	...	...	8,062	2,848	5,910
8	...	8	...	...	...	1,158	1,129	2,287	1,596	1,515	3,111
8	...	8	...	...	...	1,158	1,129	2,287	1,596	1,515	3,111
21	13	34	...	...	...	49	70	119	807	771	1,578
7	2	9	...	...	...	...	...	...	265	232	517
28	15	43	...	...	...	49	70	119	1,072	1,023	2,095
7	15	22	...	...	...	14	12	26	15,700	14,701	30,401
85	30	65	...	...	...	63	82	145	16,772	15,724	32,496
...	...	...	...	...	...	2	2	4	1,030	912	1,942
12	11	23	...	...	...	1	1	2	858	831	689
12	11	23	...	...	...	3	3	6	1,383	1,243	2,621
287	280	467	...	...	...	51	71	122	3,083	2,803	5,886
1,142	995	2,137	1	4	5	1,286	1,239	2,525	98,086	91,752	189,838
1,879	1,225	2,604	1	4	5	1,897	1,310	2,647	101,174	94,661	195,835

ANNUAL FORM No. IB.—Still births registered according to class in each towns

1			2			3		
Registering circle.			Christians.			Hindus.		
			Male.	Female.	Total.	Male.	Female.	Total.
CUTTACK.								
Cuttack town	...	...	...	...	...	...	...	...
Kendrapara town	...	...	...	...	...	4	...	4
Jajpur town	...	...	...	...	...	...	...	...
Total of town	...	...	...	...	...	4	...	4
Total of rural	...	...	...	...	...	2,412	1,930	4,342
Total of district	...	...	...	...	...	2,416	1,930	4,346
BALASORE.								
Balasore town	...	...	...	...	...	...	...	...
Total of rural	...	...	...	...	...	971	800	1,771
Total of district	...	...	...	...	...	971	800	1,771
PURI.								
Puri town	...	...	1	...	1	37	37	74
Total of rural	...	...	1	...	1	1,376	1,139	2,515
Total of district	...	...	2	...	2	1,413	1,176	2,589
SAMBALPUR.								
Sambalpur town	...	...	...	...	...	4	3	7
Total of rural	...	...	...	...	...	76	69	135
Total of district	...	...	...	...	...	80	62	142
ANGUL.								
Total of rural	...	...	...	...	...	36	34	70
Total of district	...	...	...	...	...	36	34	70
KHONDMAHS.								
Total of rural	...	...	1	...	1	3	2	5
Total of district	...	...	1	...	1	3	2	5
GANJAM PLAINS								
Berhampur town	...	...	...	1	1	14	19	33
Parlakimedi town	...	...	...	...	...	2	3	5
Total of towns	...	...	...	1	1	16	22	38
Total of rural	...	...	1	1	2	143	170	313
Total of district	...	...	1	2	3	159	192	351
AGENCY DISTRICTS.								
Ganjam	...	...	...	...	...	29	27	56
Koraput	...	...	...	...	...	14	11	25
Total of Agency districts	...	...	...	...	...	43	38	81
TOTAL FOR THE PROVINCE								
Towns	...	...	1	1	2	61	62	123
Rural	...	...	3	1	4	5,060	4,172	9,232
Districts	...	...	4	2	6	5,121	4,234	9,355

DIX I—contd.

and rural areas in the districts of Orissa Province during the year 1944.

4			5			6			7		
Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
...
1	...	1	...	...	...	...	...	...	5	...	5
...
1	...	1	...	...	...	...	...	...	5	...	5
45	33	78	...	...	...	...	...	...	2,457	1,963	4,420
46	33	79	...	...	...	...	...	...	2,462	1,963	4,425
...
2	3	5	...	...	...	...	...	...	973	803	1,776
2	3	5	...	...	...	...	...	...	973	803	1,776
...	...	...	...	...	...	...	...	...	38	37	75
4	2	6	...	...	...	...	...	...	1,381	1,141	2,522
4	2	6	...	...	...	...	...	...	1,410	1,178	2,597
...	...	...	...	...	...	...	...	...	4	3	7
...	...	...	...	...	...	...	...	...	76	59	135
...	...	...	...	...	...	...	...	...	80	62	142
...	...	...	...	...	...	...	...	...	86	34	70
...	...	...	...	...	...	...	...	...	36	34	70
...	...	...	...	...	...	11	17	28	15	19	34
...	...	...	...	...	...	11	17	28	15	19	34
...	...	...	...	...	...	2	1	3	16	21	37
...	...	...	...	...	...	...	...	...	2	3	5
...	...	...	...	...	...	2	1	3	18	24	42
1	2	3	...	...	...	2	2	4	147	175	322
1	2	3	...	...	...	4	3	7	165	199	364
...	...	...	...	...	...	1	1	2	80	28	58
1	1	2	...	...	...	...	...	...	15	12	27
1	1	2	...	...	...	1	1	2	45	40	85
1	...	1	...	...	...	2	1	3	65	64	129
53	14	94	...	...	...	14	20	34	5,190	4,234	9,424
54	41	95	...	...	...	16	21	37	5,195	4,238	9,433

ANNUAL FORM No. II.—Statement of deaths registered

1	2				3	4	5		
No.	Districts.				Area in square miles.	Average population per square mile.	Number of deaths registered.		
							Male.	Female.	Total.
1	Cuttack	...	...	...	3,654	620	40,289	40,288	80,527
2	Balasore	...	...	...	2,194	469	18,516	18,657	37,173
3	Puri	...	...	...	2,492	442	18,868	18,020	36,388
4	Sambalpur	...	...	...	5,419	218	14,489	13,258	27,747
5	Angul	...	...	...	881	188	1,906	1,780	3,686
6	Khondmala	...	...	...	800	108	1,323	1,274	2,607
7	Ganjam Plains	...	...	...	8,815	420	21,968	23,046	45,034
AGENCY DISTRICTS.									
8	Ganjam	...	...	...	3,022	107	869	843	1,712
9	Koraput	...	...	...	117	856	386	321	707
Total of Agency districts					3,139	116	1,255	1,164	2,419
Total for the Province					21,894	847	118,144	117,437	235,581

IX I- contd.

in the districts of Orissa Province during the year 1944.

6								7					
Death rate per 1,000 of population from—								Mean ratio of deaths per 1,000 during previous five years.					
Cholera.	Smallpox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	All causes.			Male.	Female.	Total.
								Male.	Female.	Total.			
4.16	1.36	...	16.03	4.29	0.65	0.48	8.11	86.50	23.78	85.08	29.08	27.80	28.15
2.58	3.07	..	22.21	0.60	0.10	0.43	6.68	81.75	85.57	35.66	28.77	26.83	28.80
3.72	0.46	...	14.15	3.17	0.56	0.42	9.49	83.89	80.95	32.37	29.91	28.33	29.10
0.06	0.97	...	12.50	1.03	1.00	0.25	6.89	24.13	21.34	22.71	25.07	23.55	24.30
0.08	0.06	...	17.80	0.54	0.06	0.48	2.62	22.09	20.22	21.14	25.30	23.38	24.33
0.11	0.02	...	27.67	0.21	0.02	0.25	1.25	30.74	28.36	29.53	29.52	28.08	28.76
1.16	0.06	...	24.82	2.24	0.44	0.14	5.70	83.53	29.69	31.56	30.52	25.56	27.83
0.14	0.01	...	3.74	0.25	0.05	0.03	0.80	5.18	4.87	5.02	6.88	5.88	6.37
0.28	0.11	...	6.43	2.61	0.84	0.30	4.60	16.46	14.02	15.26	15.12	13.42	14.27
0.16	0.02	...	4.06	0.53	0.14	0.07	1.27	6.56	5.94	6.25	7.84	6.72	7.28
2.35	1.05	...	16.66	2.42	0.59	0.35	6.94	31.58	29.23	30.36	27.92	25.71	26.77

ANNUAL FORM NO. III.—Deaths registered in the districts of

1	2	3	4	5	6	7	8
No.	Districts.	Population according to census, 1941.	January.	February.	March.	April.	May.
1	Cuttack district	Urban ... 97,359 Rural ... 2,169,202 Total ... 2,265,561	297 8,351 8,648	263 6,838 7,096	235 7,046 7,281	253 6,714 6,967	243 8,520 5,763
2	Balasore district	Urban ... 19,405 Rural ... 1,010,025 Total ... 1,029,430	73 5,050 5,123	36 8,869 8,905	21 4,009 4,030	22 3,455 3,477	13 2,727 2,740
3	Puri district	Urban ... 41,085 Rural ... 1,060,884 Total ... 1,101,939	166 4,099 4,265	178 3,023 8,201	197 8,112 8,309	121 2,709 2,830	84 2,653 2,737
4	Sambalpur district	Urban ... 17,079 Rural ... 1,165,548 Total ... 1,182,622	28 2,552 2,576	20 2,204 2,224	18 2,420 2,438	24 2,592 2,616	25 2,569 2,594
5	Angul district	Rural ... 165,866 Total ... 165,866	373 378	257 257	396 396	399 399	386 386
6	Khondmals district	Rural ... 86,779 Total ... 86,779	199 199	162 162	164 164	231 231	287 287
7	Ganjam district (Plains)	Urban ... 64,578 Rural ... 1,327,610 Total ... 1,392,188	223 3,326 3,849	135 2,388 2,523	138 2,527 2,665	126 2,819 2,945	97 2,920 3,017
AGENCY DISTRICTS.							
8	Ganjam	322,402	96	185	146	179	96
9	Koraput	41,686	49	48	42	45	39
Total of Agency districts		864,088	145	183	190	224	135
Total for the Province		Urban ... 239,476 Rural ... 7,848,997 Total ... 7,588,473	782 24,400 25,182	632 18,919 19,551	609 19,864 20,473	546 19,143 19,689	462 17,197 17,659
Ratio per 1,000 of population.		Urban ... Rural ... Total ...	8.17 3.25 3.24	2.56 2.52 2.52	2.46 2.64 2.64	2.21 2.55 2.54	1.57 2.29 2.28

ANNUAL FORM No. IV. --Deaths registered according to age in the

1	2		Deaths under							
No.	District.		Not exceeding one month.							
			Male.			Female.			Total of columns 3 and 6.	
			Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.		
			1	2	3	4	5	6		7
1	Cuttack district	{ Urban ... Rural ... Total ...	99 1,580 1,620	32 1,423 1,455	131 2,953 3,084	102 1,240 1,351	36 1,110 1,146	138 2,809 2,497	269 5,312 5,581	
2	Balesore District	{ Urban ... Rural ... Total ...	2 684 686	2 621 623	.. 1,805 1,309	.. 655 656	1 606 607	1 1,262 1,263	5 2,567 2,572	
3	Furi district	{ Urban ... Rural ... Total ...	88 856 894	27 801 828	65 1,657 1,722	38 693 726	23 682 705	56 1,375 1,431	121 3,032 3,158	
4	Sambalpur district	{ Urban ... Rural ... Total ...	6 1,09 1,098	7 1,041 1,048	18 2,138 2,146	2 856 858	5 868 873	7 1,734 1,741	20 3,867 3,887	
5	Angul district	{ Rural ... Total ...	120 120	127 127	247 247	102 102	94 94	196 196	448 448	
6	Khondmals district	{ Rural ... Total ...	59 59	71 71	130 130	51 51	91 91	142 142	272 272	
7	Ganjam district (Plains)	{ Urban ... Rural ... Total ...	34 634 668	11 495 506	45 1,829 1,374	25 434 459	15 431 446	40 865 905	85 2,194 2,279	
AGENCY DISTRICTS.										
8	Ganjam	...	37	38	70	10	15	25	95	
9	Koraput	...	12	3	15	9	3	12	27	
Total of Agency districts			49	36	85	19	18	37	122	
Total for the Province			Urban ...	179	79	258	162	80	242	500
			Rural ...	5,224	4,615	9,839	4,070	3,900	7,970	17,809
			Total ...	5,403	4,694	10,097	4,232	3,980	8,212	18,309

DIX I—contd.

Districts of Orissa Province during the year 1944.

3									
one year.									
Over one month and not exceeding six months.			Over six months and not exceeding twelve months.			Total male columns 8, 8 and 11.	Total female columns 6, 9 and 12.	Total.	No.
Male.	Female.	Total.	Male.	Female.	Total.				
8	9	10	11	12	13	14	15	16	
67	61	128	44	59	103	242	258	500	1
2,766	2,531	5,297	1,224	1,107	2,331	6,943	5,997	12,940	
2,833	2,592	5,425	1,268	1,166	2,434	7,185	6,255	13,440	
3	2	5	...	2	2	7	5	12	2
1,231	1,278	2,509	576	540	1,116	8,112	3,080	6,192	
1,234	1,280	2,514	576	542	1,118	3,119	3,085	6,204	
30	42	72	29	33	62	124	131	255	3
1,089	936	2,025	501	442	948	3,247	2,753	6,000	
1,119	978	2,097	580	475	1,055	8,371	2,884	6,255	
7	3	10	6	3	9	26	13	39	4
1,138	1,022	2,160	486	494	980	3,757	3,250	7,007	
1,135	1,025	2,170	492	497	989	8,788	3,253	7,046	
172	162	334	124	107	231	543	465	1,008	5
172	162	334	124	107	231	543	465	1,008	
183	228	411	104	100	204	417	470	887	
183	228	411	104	100	204	417	470	887	6
42	88	60	86	28	64	123	106	229	
1,005	776	1,781	637	755	1,312	2,971	2,396	5,367	7
1,047	814	1,861	673	783	1,456	3,094	2,502	5,596	
55	49	104	36	38	74	161	112	273	8
14	13	27	9	12	21	38	37	75	
69	62	131	45	50	95	199	149	348	
149	146	295	115	125	240	522	513	1,035	9
7,553	6,995	14,548	3,697	3,595	7,292	21,189	18,560	39,749	
7,802	7,141	14,943	3,812	3,720	7,532	21,711	19,073	40,784	

ANNUAL FORM NO. IV.—Deaths registered according to age in the

1	2			3		4		5		6			
No.	District.			1 year and under 5 years.		5 years and under 10 years.		10 years and under 15 years.		15 years and. under 20 years			
				Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		
	17	18	19	20	21	22	23	24					
1	Cuttack district	...	{	Urban ...	217	198	83	85	60	46	69	80	
				Rural ...	5,645	5,704	2,388	2,214	1,399	1,269	1,426	1,041	
				Total ...	5,862	5,902	2,471	2,299	1,409	1,415	1,495	1,721	
2	Balasore district	...	{	Urban ...	6	14	15	14	1	5	5	8	
				Rural ...	2,187	2,156	953	916	661	557	665	747	
				Total ...	2,193	2,170	968	930	662	562	670	755	
3	Puri district	...	{	Urban ...	94	90	46	48	30	28	18	24	
				Rural ...	2,288	2,334	945	979	599	500	545	595	
				Total ...	2,382	2,427	991	1,027	629	528	563	619	
4	Sambalpur district	...	{	Urban ...	24	15	5	4	9	6	9	5	
				Rural ...	2,239	2,091	844	761	474	394	375	477	
				Total ...	2,263	2,106	849	765	483	400	384	482	
5	Angul district	...	{	Rural ...	362	363	109	101	64	53	46	40	
				Total ...	362	363	109	106	64	53	46	40	
6	Khondmals district	...	{	Rural ...	218	199	70	61	47	26	34	40	
				Total ...	218	199	70	61	47	26	34	40	
7	Ganjam district (Plains)	...	{	Urban ...	72	47	45	44	87	82	35	82	
				Rural ...	3,274	2,487	2,525	1,968	1,758	1,547	2,122	2,320	
				Total ...	3,344	2,534	2,570	2,027	1,795	1,579	2,157	2,382	
AGENCY DISTRICTS.													
8	Ganjam	...	...	...	132	104	94	74	63	51	77	74
9	Koraput	...	...	...	38	39	25	32	21	15	19	32
Total of Agency districts					170	143	119	106	84	66	96	106	
Total for the Province...					Urban ...	413	364	154	195	187	117	136	149
					Rural ...	16,381	15,480	7,958	7,126	5,086	4,412	5,809	5,966
					Total ...	16,794	15,844	8,117	7,321	5,223	4,529	5,445	6,115

DIX I—contd.

districts of Orissa Province during the year 1944.

7		8		9		10		11		1
20 years and under 80 years.		80 years and under 40 years.		40 years and under 60 years.		60 years and under 60 years.		60 years and upwards.		No.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
25	26	27	28	29	30	31	32	33	34	
212	173	205	138	201	104	195	99	359	265	1
3,281	4,449	3,697	3,773	3,320	2,853	3,898	3,712	6,549	7,181	
3,493	4,616	3,802	8,906	3,511	2,967	4,093	3,811	6,906	7,446	
16	11	14	18	16	13	20	16	27	15	2
1,739	2,329	2,189	2,225	2,333	2,003	2,215	2,035	2,335	2,430	
1,755	2,340	2,208	2,243	2,349	2,016	2,35	2,111	2,362	2,445	
66	49	108	68	136	90	143	91	238	270	3
1,485	1,988	1,703	1,629	1,748	1,507	2,141	2,022	2,674	2,821	
1,551	2,037	1,806	1,697	1,884	1,597	2,284	2,113	2,907	3,001	
15	9	18	14	15	8	9	14	15	14	4
889	1,019	1,157	1,010	1,102	799	1,800	1,148	2,207	2,212	
904	1,028	1,176	1,024	1,117	807	1,809	1,157	2,222	2,226	
60	109	136	113	136	100	133	124	817	807	5
60	109	136	113	136	100	133	124	317	307	
70	46	115	105	121	108	143	136	98	88	
70	46	115	105	121	108	143	136	98	83	6
61	69	97	87	121	105	116	70	211	190	
2,511	2,738	1,964	2,852	1,277	1,698	1,015	1,644	1,653	8,099	7
2,572	2,807	2,061	2,439	1,398	1,803	1,133	1,714	1,864	3,289	
91	80	67	92	68	55	86	62	80	189	8
37	33	61	29	45	19	85	34	67	52	9
128	112	128	121	113	74	71	96	147	191	
870	311	487	320	489	320	485	290	845	754	}
10,163	12,784	10,989	11,828	10,150	9,152	10,916	10,972	15,980	18,924	
10,533	13,095	11,426	11,648	10,539	9,472	11,401	11,262	16,825	19,078	

ANNUAL FORM NO. IV-A.—Deaths under one year registered according to class in each town

1				2			3		
Registering circle.				Christians.			Hindus.		
				Male.	Female.	Total.	Male.	Female.	Total.
CUTTACK.									
Cuttack town	...	...	...	4	2	6	159	177	336
Kendrapara town	...	...	...	...	...	...	36	31	67
Jajpur town	...	...	...	...	...	...	11	14	25
Total of towns	...	...	...	4	2	6	206	222	428
Total of rural	...	...	...	1	1	2	6,848	5,918	12,761
Total of district	...	...	...	5	3	8	7,054	6,135	13,189
BALASORE.									
Balasore town	...	...	...	...	...	...	7	5	12
Total of rural	...	...	...	...	...	...	3,087	3,062	6,149
Total of district	...	...	...	...	...	...	3,094	3,067	6,161
PURI.									
Puri town	...	...	...	...	...	...	123	130	253
Total of rural	...	...	...	...	2	2	3,205	2,728	5,933
Total of district	...	...	...	...	2	2	3,328	2,858	6,186
SAMBALPUR.									
Sambalpur town	...	...	...	...	...	...	26	13	39
Total of rural	...	...	...	...	...	...	3,757	3,250	7,007
Total of district	...	...	...	...	...	...	3,783	3,263	7,046
ANGUL.									
Total of rural	...	...	...	...	...	...	543	465	1,008
Total of district	...	...	...	...	...	...	543	465	1,008

DIX I—contd.

and rural areas in the districts of Orissa Province during the year 1944—contd.

4			5			6			7		
Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
30	27	57	...	...	...	...	...	...	193	206	899
2	7	9	...	...	...	...	...	...	38	38	76
...	...	...	...	...	...	...	...	...	11	14	25
32	34	66	...	...	...	...	...	...	242	258	500
94	83	177	...	...	...	...	...	...	6,943	5,997	12,940
126	117	243	...	...	...	...	...	...	7,185	6,255	13,440
...	...	...	...	...	...	...	...	...	7	5	12
24	18	42	...	...	...	1	...	1	8,112	8,080	6,192
24	18	42	...	...	...	1	...	1	8,119	8,085	6,204
1	1	2	...	...	...	...	...	...	124	131	255
42	23	65	...	...	...	...	...	...	8,247	2,753	6,000
43	24	67	...	...	...	...	...	...	8,371	2884	6,255
...	...	...	...	...	...	...	...	...	26	13	39
...	...	...	...	...	...	...	...	...	8,787	8,250	7,007
...	...	...	...	...	...	...	...	...	8,783	3,263	7,046
...	...	...	...	...	...	...	...	...	543	465	1,008
...	...	...	...	...	...	...	...	...	543	465	1,008

ANNUAL FORM NO. IV-A.—Deaths under one year registered according to class in each town

1			2			3		
Registering circle.			Christians.			Hindus.		
			Male.	Female.	Total.	Male.	Female.	Total.
KHONDMAIS.								
Total of rural	..	..	..	..	..	125	128	253
Total of district	..	..	..	..	..	125	128	253
GANJAM PLAINS.								
Berhampur town	..	..	1	1	2	65	56	121
Parlakimedi town	..	..	..	..	..	37	36	73
Total of towns	..	..	1	1	2	102	92	194
Total of rural	..	..	3	2	5	2,952	2,375	5,327
Total of district	..	..	4	3	7	3,054	2,467	5,521
AGENCY DISTRICTS.								
Ganjam	..	..	1	2	3	160	110	270
Koraput	..	..	1	1	2	36	35	71
Total of Agency districts	..	..	2	3	5	196	145	341
PROVINCE.								
Total for the Province	Towns	..	5	3	8	464	462	926
	Rural	..	6	8	14	20,713	18,066	38,779
	District	..	11	11	22	21,177	18,528	39,705

DIX I—contd.

and rural areas in the districts of Orissa Province during the year 1944—concl'd.

4			5			6			7		
Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
...	...	...	...	...	...	292	342	634	417	470	887
...	...	...	...	...	...	292	342	634	417	470	887
5	1	6	...	...	...	15	12	27	86	70	156
...	...	...	...	...	...	...	...	...	37	36	73
5	1	6	...	...	...	15	12	27	123	106	229
4	5	9	...	...	...	12	14	26	2,971	2,396	5,367
9	6	15	...	...	...	27	26	53	3,094	2,502	5,596
...	...	...	...	...	...	...	...	...	161	112	273
...	1	1	...	...	...	1	...	1	38	37	87
...	1	1	...	...	...	1	...	1	199	149	348
38	26	74	...	...	...	15	12	27	522	518	1,035
164	130	294	...	...	...	306	356	662	21,189	18,560	39,749
202	166	368	...	...	...	321	368	689	21,711	19,073	40,784

ANNUAL FORM NO. V.—Deaths registered according to class

1	2	3											
No.	District.	Number of deaths											
		Christians.			Hindus.			Muhammadans.			Buddhists.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1	Cuttack ...	24	35	59	39,339	39,286	78,625	922	916	1,838	...	...	...
2	Balasore ...	14	24	38	17,603	17,921	35,524	586	502	1,088	...	...	...
8	Puri ...	6	6	12	18,092	17,775	35,867	280	239	519	...	...	...
4	Sambalpur ...	5	8	13	14,467	18,237	32,704	17	13	30	...	...	...
5	Angul ...	1	...	1	1,908	1,776	3,679	2	4	6	...	...	...
6	Khondmale ...	1	...	1	401	401	802	1	1	2	...	...	...
7	Ganjam Plains ...	33	21	54	21,792	22,839	44,631	42	47	89	...	...	...
AGENCY DISTRICTS.													
8	Ganjam ...	7	16	23	856	827	1,683	1	...	1	...	...	...
9	Koraput ...	7	6	13	366	301	667	5	9	14	...	...	...
Total of Agency districts ...		14	22	36	1,222	1,128	2,350	6	9	15	...	...	...
Total for the province ...		98	116	214	114,809	114,362	229,171	1,856	1,731	3,587	...	...	...

DIX I--contd.

on the districts of Orissa Province during the year 1944.

4																		
registered.			Ratio of deaths per 1,000 of population.															
Other classes.			Christians.			Hindus.			Muhammadans.			Buddhists.			Other classes.			No.
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
4	1	5	18.84	21.54	20.35	87.84	85.03	86.28	26.44	23.30	24.78	...	...	...	0.14	0.03	0.09	
813	210	523	15.82	28.37	21.95	26.64	36.77	36.71	31.13	27.14	29.15	...	...	...	17.59	11.86	14.73	
...	...	...	10.49	9.00	9.69	35.53	32.50	33.96	20.84	17.21	19.00	...	...	...	...	...	...
...	...	...	1.74	2.77	2.26	32.47	28.89	30.62	618	5.05	5.63	...	...	...	...	...	...
...	...	...	9.01	...	5.65	24.62	22.56	23.58	7.81	21.74	13.64	...	...	...	...	...	...
980	872	1,852	14.93	...	9.80	51.31	51.66	51.49	50.00	100.00	66.67	...	...	...	26.23	23.50	24.83	
121	139	260	28.33	17.54	22.86	35.44	31.32	33.21	21.28	23.45	24.17	...	...	...	3.20	3.58	3.39	
5	...	5	6.12	13.09	9.95	46.42	46.00	46.22	7.41	...	5.43	...	...	...	0.03	...	0.02	
8	5	13	7.49	7.03	7.30	26.28	22.54	24.45	6.82	14.52	10.35	...	...	...	1.02	0.62	0.82	
13	5	18	6.74	10.91	8.79	37.76	36.00	36.89	6.91	13.45	9.71	...	...	...	0.08	0.08	0.06	
1,381	1,228	2,609	10.86	12.43	11.66	35.80	33.08	34.26	25.42	22.58	23.94	...	...	...	3.06	2.61	2.83	

APPENDIX I—contd.

ANNUAL FORM NO. V-A.—Death rates according to class, urban and rural areas separately in each district of Orissa Province during the year 1944.

Number.	District.			Christians.	Hindus.	Muhammadans.	Buddhists.	Other classes.	Total.
1	2			3	4	5	6	7	8
1	Cuttack	...	{ Urban ... Rural ...	19.70 22.76	35.47 36.41	22.50 25.26	... ...	... 0.09	32.74 35.19
2	Balarore	...	{ Urban ... Rural ...	9.82 27.00	13.73 37.05	9.95 31.73	... ...	... 15.00	12.85 36.12
3	Puri	...	{ Urban ... Rural ...	... 12.81	45.47 33.50	16.04 19.08	... ...	... ...	44.58 31.80
4	Sambalpur	...	{ Urban ... Rural ...	3.27 2.20	17.01 30.84	... 7.59	... ...	... ...	13.90 22.84
5	Angul	...	{ Urban ... Rural ...	... 5.65	... 23.58	... 13.64	... ...	... ...	... 21.14
6	Khondmals	...	{ Urban ... Rural ...	... 9.80	... 51.48	... 66.67	... ...	... 24.83	... 29.53
7	Ganjam Plains	...	{ Urban ... Rural ...	12.53 28.13	22.51 33.74	21.96 25.62	... ...	218.22 0.40	25.47 31.86
AGENCY DISTRICTS.									
8	Ganjam	...	{ Urban ... Rural ...	... 9.95	... 46.22	... 5.43	... ...	... 0.02	... 5.02
9	Koraput	...	{ Urban ... Rural ...	... 7.30	... 24.45	... 10.35	... ...	... 0.82	... 15.26
Total of Agency district.		{ Urban ... Rural ...	... 8.79	... 33.89	... 9.71	... ...	... 0.06	...	... 6.25
Total for the province.		{ Urban ... Rural ...	14.67 10.73	30.87 34.48	18.51 24.23	... ...	50.10 2.59	...	29.80 30.33

APPENDIX J
Annual Form No. VI

ANNUAL FORM NO. VI.—Deaths registered from different causes in the

1	2	3			4			5			6	7	8	9	10	11
No.	District and towns.	Population for which returns were received.			Births.			Birth rate.			Cholera.	Smallpox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.						
DISTRICTS EXCLUDING TOWNS.																
1	Cuttack	1,031,682	1,136,520	2,168,202	20,104	27,944	58,048	13.72	12.73	13.45	9,394	2,937	...	25,969	9,350	1,376
2	Balasore	498,009	512,016	1,010,025	12,874	12,236	25,070	12.63	11.97	12.32	2,689	3,310	...	23,103	604	167
3	Puri	538,789	552,065	1,090,854	14,646	15,547	29,193	13.54	12.59	13.06	4,114	505	...	15,478	3,268	255
4	Sambalpur	572,298	593,555	1,165,853	18,753	17,719	36,472	15.55	14.72	15.13	71	1,178	...	15,178	1,230	1,213
5	Angul	81,886	83,989	165,865	3,062	2,843	5,910	17.56	16.34	16.95	14	11	...	3,016	93	11
6	Khondama	42,579	44,200	86,779	1,296	1,515	2,811	18.08	17.16	17.62	10	2	...	2,443	18	2
7	Ganjam plains	604,791	722,819	1,327,610	15,709	14,701	30,410	11.54	10.81	11.17	1,594	86	...	20,639	2,329	478
AGENCY DISTRICTS.																
8	Ganjam	158,757	163,645	322,402	1,030	912	1,942	3.02	2.68	2.85	...	2	...	1,376	84	17
9	Koraput	21,038	20,648	41,686	258	331	589	7.73	7.14	7.43	13	5	...	258	121	39
	Total of Agency districts.	179,795	184,293	364,088	1,288	1,243	2,531	3.58	3.21	3.39	61	7	...	1,634	265	56
	Total for the Province.	3,519,819	3,929,178	7,448,997	98,086	91,712	189,838	13.06	12.21	12.63	17,947	7,856	...	127,470	17,687	4,169
TOWNS.																
CUTTACK DISTRICT.																
1	Cuttack	41,590	32,701	74,291	1,128	1,363	2,491	14.39	13.82	14.11	95	116	...	515	267	123
2	Kendrapara	6,016	5,864	11,880	139	135	274	11.95	11.60	11.78	41	1	...	216	29	27
3	Jaipur	5,127	5,461	10,588	66	59	125	5.81	5.30	5.55	28	63	...	87	23	14
BALASORE DISTRICT.																
4	Balasore	10,572	8,873	19,445	47	45	92	2.36	2.26	2.31	3	25	...	748	22	1
PURI DISTRICT.																
5	Puri	22,705	18,760	41,465	533	476	1,009	12.63	11.27	11.95	64	17	...	428	360	126
SAMBALPUR DISTRICT.																
6	Sambalpur	8,529	8,509	17,038	103	103	206	5.80	5.80	5.80	5	4	...	94	25	8
GANJAM DISTRICT.																
7	Berhampur	21,584	21,552	43,136	807	771	1,578	17.76	16.96	17.36	42	1	...	330	177	123
8	Parlakmedi	10,373	10,669	21,042	265	252	517	12.40	11.80	12.10	21	1	...	155	83	32
	Total for all towns.	127,447	112,029	239,476	3,083	2,909	5,992	12.60	11.78	12.19	209	268	...	1,573	1,116	454
	Total for the whole Province.	3,647,266	3,941,207	7,588,473	101,174	94,621	195,835	13.04	12.20	12.62	18,246	8,124	...	129,043	18,803	4,623

DIX I—contd.

district and towns of Orissa Province during the year 1944.

12						13	14			15													
Injuries.						All other causes.	Total deaths from all causes.			Ratio of deaths per 1,000 of population.													
Suicide.		Wounds or accidents.	Snake bite or killed by wild animals.	Rabies.	Total.		Male.	Female.	Total.	Cholera.	Smallpox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.				Mean of previous five years.	
Male.	Female.																	Male.	Female.	Total.			
141	251	440	218	37	1,087	17,130	38,446	58,797	77,243	4'28	1'34	—	16'39	4'28	0'31	0'49	7'80	36'66	33'83	35'19	...	1	
65	83	141	125	95	442	6,872	18,849	18,338	36,927	2'63	3'04	...	22'69	0'59	0'11	0'43	6'72	36'25	35'98	33'12	...	2	
53	58	228	84	20	462	9,783	17,375	17,131	34,506	3'80	0'47	...	14'21	2'86	0'88	0'43	9'04	33'51	30'40	31'29	...	3	
44	12	159	60	13	328	8,312	14,344	13,166	27,500	0'06	0'98	...	12'61	1'02	1'01	0'25	6'11	24'25	21'48	22'84	...	4	
3	9	56	14	2	84	457	1,900	1,780	3,686	0'08	0'06	...	17'20	0'54	0'03	0'43	2'62	22'09	20'22	21'14	...	5	
3	2	6	10	...	22	110	1,373	1,274	2,687	0'11	0'02	...	21'67	0'21	0'02	0'45	1'25	30'74	28'36	29'53	...	6	
14	39	56	47	13	169	7,427	21,068	22,264	43,332	1'17	0'06	...	22'5	2'18	0'25	0'13	5'46	33'87	30'17	31'36	...	7	
...	2	2	7	1	12	273	869	843	1,712	0'14	0'01	...	3'74	0'25	0'05	0'03	0'60	5'18	4'87	5'02	...	8	
1	1	10	1	1	14	217	386	321	707	0'28	0'11	...	6'43	2'61	0'84	0'39	4'69	16'46	14'02	15'26	...	9	
1	3	12	8	2	26	40	1,325	1,164	2,419	0'16	0'02	...	4'06	0'23	0'14	0'07	1'27	6'56	5'94	6'25	...	...
324	453	1,101	556	131	2,600	50,521	114,116	114,104	229,220	2'29	1'04	...	16'83	2'36	0'35	0'25	6'73	31'62	29'22	30'38	...	...
5	1	3	3	3	15	1,313	1,487	1,657	2,544	1'23	1'50	...	6'66	4'75	1'59	0'19	16'29	34'32	31'12	32'91	...	1	
1	...	3	1	...	5	148	242	255	497	3'52	0'09	...	18'57	5'07	2'32	0'43	12'72	40'72	44'31	42'72	...	2	
...	...	3	...	1	4	24	114	129	243	2'47	5'25	...	7'66	2'02	1'23	0'35	2'11	1'40	23'54	21'39	...	3	
...	...	...	1	...	1	89	127	110	244	0'15	4'27	...	2'41	1'10	0'05	0'05	4'32	11'91	23'5	12'35	...	...
5	...	7	1	...	13	884	903	889	1,882	1'52	0'40	...	10'14	8'29	2'08	0'31	20'94	42'49	47'17	44'38	...	...
...	...	7	...	...	7	94	145	102	247	0'28	0'23	...	5'29	1'97	0'45	0'39	5'29	16'50	11'36	13'90	...	...
1	1	22	3	1	28	483	639	547	1,196	0'52	0'02	...	7'16	3'89	2'71	0'62	10'67	27'60	24'51	26'09	...	7	
2	...	2	...	2	6	218	281	235	516	0'98	0'05	...	7'25	3'89	1'50	0'23	10'20	26'44	21'89	24'15	...	8	
14	2	47	9	7	79	3,252	4,128	3,343	7,381	1'21	1'17	...	7'58	4'52	1'34	0'32	13'18	30'37	28'91	29'60	...	...
325	460	1,148	595	138	2,679	53,843	118,144	117,437	235,581	2'35	1'05	...	16'66	2'42	0'39	0'35	6'94	31'68	29'42	30'36	...	...

DIX I—contd.

of fevers, dysentery, diarrhoea, respiratory diseases and other causes.

Pneumonia.	Pulmonary tuberculosis.	Whooping cough.	Other respiratory diseases.	Beri-beri.	Acute poliomyelitis.	Diphtheria.	Chicken pox.	Mumps.	Tuberculosis of joints.	Other tubercular diseases.	Leprosy.	Cancer.	Deaths from child birth.	Deaths under one year.	Infantile mortality rate per 1,000 births.
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
28	...	...	88	1	...	...	8	2	...	7	10	7	...	399	181.69
10	...	...	15	...	...	...	...	...	...	2	...	2	10	76	277.37
5	...	...	8	...	...	...	...	...	...	1	...	...	6	25	200.00
...	...	...	1	...	...	...	...	...	...	...	...	...	...	12	180.43
43	6	...	77	...	...	...	...	...	...	...	60	...	13	255	252.73
...	...	...	6	...	...	...	8	...	...	2	1	...	10	39	189.32
51	...	...	63	...	...	...	...	...	...	9	10	2	14	156	98.86
10	7	...	15	4	...	...	...	...	...	...	4	...	6	73	141.20

ANNUAL FORM NO. VII—Deaths registered from cholera in the

1	2			3		4		5						
No.	District.			Circles of registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
				Number in each district.	Number from which deaths from cholera were reported.	Number in each district.	Number from which deaths from cholera were reported.							
1	Cuttack	...	...	18	11	5,287	2,315	695	570	568	827	270	422	435
2	Balasore	...	...	10	10	3,426	4,018	677	336	287	31	18	76	114
3	Puri	...	...	6	6	2,913	885	851	189	321	164	139	205	462
4	Sambalpur.	...	...	27	12	2,595	25	5	1	15	9	12	1	...
5	Angul	..	...	5	2	47 ³	3	...	...	...	...	...	3	7
6	Khondmals.	...	...	4	2	1,219	4	...	7	...	...	...	...	8
7	Ganjam plains	...	...	9	9	2,615	995	43	3	5	42	16	206	317
AGENCY DISTRICTS.														
8	Ganjam	...	...	4	2	2,415	19	...	...	...	2	...	...	...
9	Koraput	...	...	6	3	6	3	...	...	...	...	...	...	7
Total of Agency districts...				10	5	2,421	22	...	...	...	2	...	...	7
Total for the Province				84	59	20,949	5,297	1,771	1,165	1,196	575	455	913	1,345

DIX I—contd.

districts of Orissa Province during each month of the year 1944.

					6			7			8	1
August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
					Male.	Female.	Total.	Male.	Female.	Total.		
778	868	1,793	1,910	932	4,524	5,034	9,558	4.10	4.23	4.16	...	
62	134	473	198	227	1,859	1,333	2,692	2.52	2.54	2.58	...	
838	745	346	295	128	1,940	2,238	4,178	3.58	3.84	3.72	...	
9	5	6	10	8	43	33	76	0.07	0.05	0.06	...	
...	...	...	...	4	10	4	14	0.12	0.05	0.08	...	
...	...	...	...	...	7	3	10	0.16	0.07	0.11	...	
861	332	91	42	199	783	674	1,657	1.19	1.13	1.16	...	
7	39	...	...	...	27	21	48	0.16	0.12	0.14	...	
2	...	...	...	4	5	8	13	0.21	0.35	1.29	...	
9	39	...	...	4	32	29	61	0.17	0.15	0.16	...	
2,057	2,123	2,709	2,455	1,482	8,698	9,548	18,246	2.82	2.32	2.35	...	

ANNUAL FORM NO. VIII.—Deaths registered from smallpox in the district

1 No.	2 Districts.	3 Circles of registration.		4 Villages.		5					
		Number in each district.	Number from which deaths from smallpox were reported.	Number in each district.	Number from which deaths from smallpox were reported.	January.	February.	March.	April.	May.	June.
1	Cuttack ..	18	13	5,287	919	265	380	406	720	488	228
2	Balasore ..	10	8	3,416	916	301	417	569	743	537	256
3	Puri ..	6	6	2,913	278	18	21	27	92	52	80
4	Sambalpur ..	27	27	2,595	316	210	143	110	110	295	187
5	Angul ..	5	2	473	8	..	..	..	..	..	..
6	Khondmals ..	4	1	1,219	1	..	..	..	..	..	..
7	Ganjam Plains ..	9	7	2,615	46	11	12	17	6	..	..
AGENCY DISTRICTS.											
8	Ganjam ..	4	1	2,415	2	..	2	..	..	..	..
9	Koraput ..	6	2	6	2	..	1	1	..	..	2
Total of Agency districts.		10	3	2,421	4	..	3	1	..	..	2
Total for the Province		84	69	20,949	2,468	805	976	1,130	1,611	1,122	652

DIX 1—*contd.**of Orissa Province during each month of the year 1944.*

						6			7		8			9	1
July.	August.	September.	October.	November.	December.	Total.			Number of deaths among children.		Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
						Male.	Female.	Total.	Under one year.	One year and under 10 years.	Male.	Female.	Total.		
168	118	86	65	57	186	1,551	1,566	3,117	326	1,010	1.40	1.31	1.36	..	1
111	58	24	37	46	87	1,635	1,560	3,195	149	320	8.16	2.97	3.07	..	2
97	51	50	46	47	111	244	278	522	11	31	0.45	0.48	0.46	..	3
160	90	150	92	18	37	614	568	11,82	96	97	1.02	0.91	0.97	..	4
2	4	4	1	..	..	6	5	11	5	9	0.07	0.06	0.06	..	5
..	2	..	..	..	..	1	1	2	..	..	0.02	0.02	0.02	..	6
18	..	..	..	..	24	43	45	88	3	21	0.07	0.06	0.06	..	7
..	..	..	..	..	..	2	..	2	..	..	0.01	..	0.01	..	8
1	..	..	..	..	..	1	4	5	..	..	0.04	0.17	0.11	..	9
1	..	..	..	..	..	3	4	7	..	..	0.02	0.02	0.02	..	
497	328	224	171	168	445	4,097	4,027	8,124	590	1,488	1.10	1.00	1.05	..	

ANNUAL FORM NO. IX.—Deaths registered from fevers in the district

1	2	3	4	5								
No.	Districts.	Circles of registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which deaths from fever were reported.	Number in each district.	Number from which deaths from fever were reported.							
1	Cuttack ...	18	18	5,287	5,247	4,123	3,255	3,308	3,253	2,764	2,288	1,637
2	Balasore ...	10	10	3,420	3,362	3,039	2,224	2,402	2,031	1,557	1,327	1,295
3	Puri ...	6	6	2,913	2,853	2,106	1,538	1,581	1,378	1,293	1,065	1,008
4	Sambalpur ...	27	27	2,595	2,262	1,304	1,151	1,291	1,406	1,515	1,110	1,007
5	Angul ...	5	5	473	466	388	216	386	341	319	210	171
6	Khondmals ...	4	4	1,219	1,132	185	153	154	203	270	198	164
7	Ganjam Plains ...	9	9	2,615	2,446	2,412	1,655	1,844	1,858	1,974	1,624	1,820
AGENCY DISTRICTS.												
8	Ganjam ...	4	4	2,415	973	74	81	110	145	79	108	81
9	Koraput ...	6	6	6	6	22	24	19	17	18	22	28
Total of Agency districts ...		10	10	2,421	979	96	105	129	162	97	130	109
Total for the Province ...		84	84	20,949	18,737	13,603	10,397	11,040	10,632	9,789	7,943	7,301

DIX I—contd.

of Orissa Province during each month of the year 1944.

					6			7			8	1
August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
					Male.	Female.	Total.	Male.	Female.	Total.		
2,452	2,526	3,218	3,567	4,401	17,876	18,911	36,787	16.19	15.88	16.03	...	
1,543	1,530	1,955	1,944	2,304	11,402	11,749	23,151	22.02	22.40	22.21	...	
1,091	1,167	1,067	1,190	1,341	7,849	8,057	15,906	14.48	18.84	14.15	...	
1,169	1,418	1,411	1,196	1,299	7,727	7,545	15,272	12.87	12.15	12.50	...	
245	264	214	211	161	1,535	1,481	3,016	17.79	16.82	17.80	...	
223	233	243	239	178	1,250	1,193	2,443	28.83	26.56	27.67	...	
3,337	4,025	3,939	3,498	3,108	15,652	15,472	31,124	23.87	20.07	21.82	...	
74	141	146	88	149	661	615	1,276	3.94	3.55	3.74	...	
27	22	35	40	24	163	135	298	6.96	5.90	6.43	...	
101	163	181	128	173	824	750	1,574	4.31	3.83	4.06	...	
10,161	11,821	12,248	11,973	12,865	64,115	65,158	129,273	17.14	16.21	16.66	...	

ANNUAL FORM NO. X—Deaths registered from dysentery and diarrhoea in the districts

1	2	3	4	5								
No.	Districts.	Circles of registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which deaths from dysentery and diarrhoea were reported.	Number in each district.	Number from which deaths from dysentery and diarrhoea were reported.							
1	Cuttack	13	13	5,287	3,267	1,167	862	900	769	628	585	512
2	Balasore	10	10	3,426	429	103	81	71	86	47	47	32
3	Puri	6	6	2,013	1,243	381	344	304	260	239	251	294
4	Sambalpur	27	27	2,595	545	115	112	120	104	78	73	74
5	Angul	5	5	473	55	8	8	6	6	6	3	10
6	Khondmals	4	2	1,219	8	7	...	...	7	...	2	...
7	Ganjam Plains	9	9	2,615	1,227	406	178	187	168	159	177	227
AGENCY DISTRICTS.												
8	Ganjam	4	4	2,415	45	7	18	6	...	...	1	7
9	Koraput	6	6	6	6	3	2	8	13	8	4	18
Total of agency districts		10	10	2,421	51	10	15	14	13	8	5	25
Total for the Province		84	82	20,949	6,836	2,192	1,600	1,602	1,363	1,165	1,178	1,174

DIX I—contd.

of Orissa Province during each month of the year 1944.

					6			7			8	1
August	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
					Male.	Female.	Total.	Male.	Female.	Total.		
681	761	1,023	915	1,016	5,092	4,747	9,839	4.61	3.99	4.29	..	1
28	45	33	39	64	354	272	626	0.68	0.52	0.60	..	2
337	330	308	285	245	1,911	1,647	3,558	3.53	2.83	3.17	..	3
131	144	140	90	84	713	552	1,265	1.19	0.89	1.03	..	4
6	8	6	8	2	41	52	93	0.47	0.59	0.54	..	5
...	1	..	1	...	7	11	18	0.16	0.24	0.21	..	6
546	602	2.2	1.5	152	1,468	1,731	3,199	2.24	2.25	2.24	..	7
3	30	12	2	3	43	41	84	0.26	0.24	0.25	...	9
21	12	10	15	7	65	56	121	2.77	2.45	2.61	...	10
24	42	22	17	10	108	97	205	0.56	0.49	0.53	...	
1,713	1,553	1,824	1,410	1,594	9,694	9,109	18,803	2.59	2.27	2.43	...	

ANNUAL FORM NO. XI.—Deaths registered from respiratory diseases in the

1	2	3	4	5								
No.	Districts.	Circles of registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which deaths from respiratory diseases were reported.	Number in each district.	Number from which deaths from respiratory diseases were reported.							
1	Cuttack	13	13	5,287	897	188	127	124	157	86	101	99
2	Balasore	10	10	3,426	73	14	6	9	5	10	8	12
3	Puri	6	6	2,913	496	108	91	101	81	60	64	60
4	Sambalpur	27	26	2,595	576	102	87	112	140	93	97	109
5	Angul	5	3	478	8	...	...	1	3	...	...	2
6	Khondmals	4	2	1,219	2	...	...	...	...	...	...	1
7	Ganjam Plains	9	9	2,615	1,786	50	38	68	73	48	29	33
AGENCY DISTRICTS.												
8	Ganjam	4	4	2,415	13	2	1	3	...	...	1	2
9	Koraput	6	5	6	5	6	4	2	1		3	5
Total of Agency districts ...		10	9	2,421	18	8	5	5	1	3	4	7
* Total of the Province ...		84	78	20,949	3,856	470	354	420	460	320	303	323

DIX I—contd.

districts of Orissa Province during each month of the year 1944.

					6			7			8	1
August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.
					Male.	Female.	Total.	Male.	Female.	Total.		
112	89	123	116	178	949	551	1,500	0·88	0·46	0·65	...	1
9	15	6	8	6	71	87	108	0·14	0·07	0·10	...	2
84	87	93	125	108	591	491	1,082	1·03	0·84	0·96	...	3
99	89	95	99	99	780	441	1,221	1·80	0·71	1·00	...	4
2	...	3	...	...	8	8	11	0·09	0·03	0·06	...	5
...	...	...	...	1	1	1	2	0·02	0·02	0·02	...	6
71	72	70	24	57	298	355	653	0·45	0·48	0·44	...	7
8	1	3	1	...	9	8	17	0·05	0·05	0·05	...	8
8	1	4	5	2	31	8	39	1·32	0·35	0·84	...	9
6	2	7	6	2	40	16	56	0·21	0·06	0·14	...	
383	354	327	378	451	2,738	1,875	4,613	0·73	0·47	0·59	...	

DIX I—concl'd.

district of Orissa Province during each month of the year 1914.

						6	7		8	1				
July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	No.	
						Male.	Female.	Total.	Male.	Female.	Total.			
Nil.														

APPENDIX II.

PROVINCIAL.

Statement showing details of registration in areas in which it is compulsory.

Compulsory registration area.	Population according to census of 1941.	Probable number of births at the rate of 2.6 per 1,000 married women between the ages of 15 and 40.	Actual number of births registered during the year.	Probable birth-rate per mille (columns 2 and 3).	Registered birth-rate per mille during the year.	Number of deaths registered during the year.		Death rate per mille.		Number of persons prosecuted under Act IV B. C. of 1932.	Number of persons convicted.	
						Including deaths in dispensary.	Excluding deaths in dispensary.	Including deaths in dispensary.	Excluding deaths in dispensary.			
1		2	3	4	5	6	7	8	9	10	11	12
Cuttack	74,291	Not available.	2,156	Not available.	28'41	3,143	2,544	40'66	32'91	...	...
Kendrapara	11,880		274		23'55	547	497	47'02	42'72	...	...
Jajpur	11,188		115		11'01	255	243	23'33	21'29	...	...
Raisaore	19,405		92		4'62	272	246	18'67	12'35	...	...
Puri	41,665		1,009		23'90	2,342	1,882	55'47	44'58	43	19	
Sambalpur	17,079		226		11'63	317	247	17'84	13'90	...	...
Berhampur	43,536		1,278		24'71	1,684	1,186	37'04	26'09	...	...
Parlakmedl	21,042		517		24'20	545	516	25'51	24'15	...	...
Total	250,476	...	5,927	...	24'28	9,215	7,561	37'37	32'50	43	19	

APPENDIX III

Rural areas.

[illegible]

APPENDIX IV

Table showing maternity and child-welfare centres, health visitors and trained midwives in rural and urban areas in Orissa during 1944

District.	Maternity and child welfare.												Remarks.
	Centres maintained by—						Trained visitors.		Trained midwives.		Trained dais.		
	Government.		Local and municipal bodies.		Other agencies.								
	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
Cuttack	1	...	1	...	5	8	3	
Balasore	2	1	...	...	...	...	...	2	4	
Puri	1	1	...	...	...	...	...	3	1	
Bambalpur	1	...	...	...	...	1	...	1	
Ganjam	1	1	...	1	...	1	13	2	7	1
Koraput	1	...	...	...	7	...	10	...
Total	4	4	1	2	...	2	20	8	20	10

STATEMENT No. 1

STATEMENT No. I.—Showing particulars of vaccination in the

Number.	District.	Population of district according to the census of 1941.	Average number of vaccinators employed throughout the season.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.	Primary
				Male.	Female.	Total.		
1	2	3	4	5	6	7	8	9
1	Cuttack	{ District excluding towns ... } { Towns ... }	{ 74 6 }	211,130 15,906	88,179 12,069	300,009 28,175	4,054 4,696	64,904 9,759
2	Balasore	{ District excluding towns ... } { Towns ... }	{ 53 1 }	107,491 4,152	69,167 1,527	176,658 5,679	3,333 5,679	31,911 259
3	Parl	{ District excluding towns ... } { Towns ... }	{ 38 3 }	69,600 11,061	40,529 6,222	109,529 17,313	2,882 5,771	23,973 1,538
4	Sambalpur	{ District excluding towns ... } { Towns ... }	{ 51 1 }	46,346 1,554	18,563 497	69,009 2,046	1,181 2,041	17,115 318
5	Angul	...	7	6,249	3,142	9,391	1,741	4,826
6	Khondmals	...	4	6,503	4,408	10,999	2,750	1,418
7	Ganjam	{ District excluding towns ... } { Towns ... }	{ 44 3 }	140,962 3,888	119,886 2,564	260,748 6,472	5,928 2,157	48,600 1,693
8	Koraput	...	22	44,950	39,772	84,752	3,852	26,373
Total of Vaccine Department.		{ District excluding towns ... } { Towns ... } { Total ... }	{ 293 14 307 }	626,751 26,561 653,312	381,644 25,124 407,768	1,011,395 29,685 1,071,080	3,472 4,363 3,450	226,143 7,467 233,210
		Jails	...	6,567	216	7,183	...	51
		Total of Railway Dispensary	...	51	18	69	...	15
	Cooly Depot	...	...	2,611	1,467	3,678	...	...
	Grand Total	...	...	672,941	409,160	1,032,010	...	233,276

districts of Orissa during the year 1944.

vaccination.				Re-vaccination.			Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total cost of Vaccination Department.	Number of all successful vaccinations and re-vaccinations performed by the vaccination staff only.	Average cost of each successful case performed by the vaccination staff.
Successful.				Total.	Successful.	Unknown.	Primary.	Re-vaccination.				
Under one year.	One year and under six years.	Total of all ages.	Unknown.									
10	11	12	13	14	15	16	17	18	19	20	21	22
5,495	33,57	50,191	2,660	235,105	56,360	67,721	95.08	51.63	68.40	2,517 3 3	154,977	0 6 2
293	1,857	2,332	98	25,416	6,601	9,378	87.63	41.15				
2,406	20,870	31,063	1,495	113,617	99,366	38,919	98.59	94.83	130.01	1,462 4 :	133,889	0 0 2
116	229	319	...	5,320	2,530	305	100.00	50.45				
905	14,014	22,155	6,530	79,623	28,213	37,392	16.43	66.98	49.47	431 13 6	54,511	0 0 1½
229	1,378	1,938	17	15,375	1,913	1,740	16.32	14.54				
10,111	5,102	13,403	3,375	42,114	3,902	35,377	98.37	57.92	15.87	4,839 2 9	18,774	0 4 1½
122	128	318	...	1,723	788	348	100.00	57.10				
2,846	1,893	4,749	71	4,555	1,757	1,513	96.66	56.17	39.47	1,239 0 0	6,246	0 2 6
555	128	1,599	1	9,551	4,784	1,861	99.73	61.07				
11,375	24,846	37,818	5,484	212,243	52,589	33,921	87.70	29.68	53.79	35,433 13 4	95,123	0 6 6
513	1,019	1,597	87	4,779	2,400	87	97.62	51.15				
5,933	9,711	19,820	1,811	53,379	21,225	12,127	80.69	40.19	36.97	17,018 12 9	41,655	0 6 6
38,947	108,940	189,631	21,817	785,251	298,706	229,021	92.84	53.73	53.62	66,317 1 10	511,628	0 2 1
1,293	4,681	6,514	172	22,618	14,302	11,838	94.47	35.69				
40,241	113,621	196,205	21,919	837,870	313,008	240,879	92.90	52.43				
10	17	41	10	7,132	2,375	762	100.00	37.23	...	...	...	...
1	11	15	...	54	54	...	100.00	100.00	...	...	...	...
...	...	...	...	...	3,673	...	...	...	...	...	...	...
40,241	113,649	196,261	22,019	22,009	848,734	241,531	92.97	51.96	58.62	66,317 1 10	511,628	0 2 1

SUMMARY.

	Total number of persons vaccinated.		Total number of operations performed.		Percentage of successful cases in which the results were known.		Average number of persons vaccinated by each vaccinator.		Number of children successfully vaccinated.		Ratio of successful vaccinations per 1,000 of population.	Total cost of Vaccination Department.	Average cost of each successful case.
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One year and under six years.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
BY SPECIAL STAFF.												Rs. a. p.	Rs. a. p.
Station (D) ...	233,210	537,570	233,210	537,570	92'90	53'43	307	3,489	40,240	113,221	58'62	66,317 1 10	0 2 1
BY OTHER AGENCIES.													
Jail, railway dispensaries and cooly depot.	66	10,564	66	10,564	100'00	24'02	—	—	21	28			
Total	233,276	548,134	233,276	548,134	92'90	51'96	307	3,489	40,261	113,249	58'62	66,317 1 10	0 2 1

Comparative Statement No. II Showing the percentage of persons primarily vaccinated to the total number of vaccinations performed in the Province of Orissa in each of the undermentioned official years.

Establishments.	Years.									
	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	1940.	1941.	1942.	1943.	1944.
1	2	3	4	5	6	7	8	9	10	11
Government staff ...	47'84	45'39	37'61	47'92	44'17	30'84	23'27	22'30	28'15	23'59
Municipal ...	22'10	25'42	28'84	14'25	10'37	11'39	17'31	15'41	16'19	11'84
District Board ...	31'01	23'78	24'38	28'27	25'36	24'06	17'91	15'04	15'08	19'22
Licensed vaccinators ...	65'78	63'24	65'70	64'82	64'97	64'84	61'18	64'66	28'78	25'20
Railways ...	...	...	...	17'68	31'69	...	...	...	23'21	21'74
Jails ...	...	1'31	1'74	1'13	0'99	0'82	0'33	0'50	0'43	0'71
Cooly depot ...	...	3'70	...	...	...	...	...	3'97	8'25	...

Statement No. III.—Showing particulars of vaccination

District.	Total number of persons vaccinated.		Total number inspected—								Percentage of	
			By Assistant Directors of Public Health or Superintendents of Vaccination.				By native Superintendents or other Inspecting Officers.				By Assistant Directors of Public Health or of Vaccination.	
			Assistant Directors of Public Health.		Superintendents of Vaccination.		District Inspectors and Health Inspectors.		Sub-Inspectors.		Assistant Directors of Public Health.	
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
1	2	3	4	5	6	7	8	9	10	11	12	13
Cuttack ...	67,075	262,851	—	—	2,188	3,020	1,491	3,622	14,232	21,276	—	—
Balasore ...	73,370	150,151	—	—	1,109	1,030	520	825	1,578	5,039	—	—
Puri ...	31,844	55,515	—	—	375	685	—	—	1,543	4,090	—	—
Sambalpur ...	17,413	44,515	—	—	2,411	1,629	—	—	13,720	5,737	—	—
Angul ...	4,836	4,755	—	—	—	—	2,051	1,555	—	—	—	—
Khondmals ...	1,418	2,551	—	—	—	—	1,399	4,754	—	—	—	—
Ganjam ...	50,332	217,698	—	—	811	1,515	18,020	29,334	25,163	169,317	—	—
Koraput ...	25,338	63,177	131	373	44	10	—	—	24,320	47,538	0'50	0'59
Total ...	333,275	848,734	131	373	6,938	7,569	23,401	63,690	90,555	235,327	0'08	0'04

verified by Inspecting Officers during the year 1944.

Inspection to total number vaccinated.						Percentage of cases found successful to total number inspected—						Percentage of successful cases reported by Vaccinators.					
By native Superintendents or other Inspecting Officers.						By Assistant Directors of Public Health or Superintendents of Vaccination.			By native Superintendents or other Inspecting Officers.								
Superintendents of Vaccination.		District Inspectors and Health Inspectors.		Sub-Inspectors.		Assistant Directors of Public Health.		Superintendents of Vaccination.		District Inspectors and Health Inspectors.						Sub-Inspectors.	
Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.					Primary.	Re-vaccination.
14	15	16	17	18	19	20	21	22	23	24	25					26	27	28	29
8'93	1'15	2'30	1'38	21'03	8'13	...	...	21'04	44'33	21'28	45'33	23'36	45'08	24'78	50'21
8'22	0'69	1'56	0'55	5'63	4'02	...	...	100'00	100'00	100'00	100'00	100'00	100'00	98'59	92'48
1'18	0'71	...	...	5'16	4'90	...	...	100'00	82'85	...	...	100'00	25'04	96'63	53'87
13'86	3'14	...	...	78'79	15'00	...	...	25'28	40'67	...	...	56'80	67'92	98'40	65'44
...	...	12'61	25'67	...	...	...	...	...	...	24'08	66'94	...	...	90'66	59'07
...	...	58'73	47'08	...	...	...	...	...	...	26'73	49'03	...	...	98'73	61'07
1'61	0'70	35'80	24'27	69'86	77'28	...	...	89'40	47'26	88'92	32'83	88'16	31'13	88'08	20'21
0'17	0'02	...	...	92'16	75'12	87'79	36'73	97'73	60'00	...	...	96'18	44'37	80'71	43'46
2'97	0'90	10'07	7'60	38'99	30'08	87'79	36'73	94'62	50'71	20'43	38'74	20'61	37'03	92'90	51'96		

STATEMEN No. IV—Showing side by side the ratios per mille of population of deaths from smallpox

District.	1935-36.		1936-37.		1937-38.		1938-39.	
	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.
1	2	3	4	5	6	7	8	9
Cuttack ...	1.12	24.13	0.27	22.83	0.16	22.38	0.06	80.04
Balasore ...	0.39	46.96	0.41	39.92	0.55	41.85	0.05	34.82
Puri ...	0.66	24.25	0.17	32.97	0.06	39.99	0.06	37.59
Sambalpur ...	0.84	27.80	0.25	88.94	0.01	89.28	...	104.19
Angul ...	0.05	61.73	...	85.22	...	40.15	0.01	101.02
Khondmals ...	0.06	27.99	1.22	86.52	0.66	85.24	0.05	47.22
Ganjam ..	0.09	41.25	0.29	58.66	0.26	60.82	0.13	49.78
Koraput ...	0.26	40.40	0.88	45.56	0.10	39.21	0.22	38.49
Total ..	0.64	32.89	0.29	45.45	0.19	46.85	0.11	47.74

and the ratios of successful vaccinations per mille of population during the ten years ending 1944

1939-40.		1940.		1941.		1942.		1943.		1944.	
Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.	Ratio of deaths from small-pox.	Ratio of successful vaccination per mille of population.
10	11	12	13	14	15	16	17	18	19	20	21
1.82	33.51	0.54	38.28	1.28	25.55	1.02	39.05	0.66	74.64	1.33	68.40
0.18	40.10	0.42	49.06	0.54	49.50	0.43	35.94	0.75	84.41	8.07	120.01
0.21	43.46	0.68	47.11	0.43	60.13	0.18	48.14	0.09	46.60	0.46	49.47
0.12	63.25	0.25	29.85	0.20	25.68	0.21	23.57	1.17	25.48	0.97	15.87
0.04	52.69	0.06	66.06	0.11	81.29	0.37	45.72	0.03	37.19	0.06	32.47
...	67.93	...	74.20	...	71.22	0.10	83.26	0.35	60.61	0.02	70.04
0.14	65.04	0.26	77.28	0.93	85.72	0.47	73.75	0.25	59.71	0.05	55.79
0.01	37.15	0.14	40.05	2.21	46.73	0.12	67.11	0.22	48.10	0.11	26.27
0.59	45.94	0.38	46.05	0.81	51.30	0.48	51.28	0.55	4	1.05	48.62

STATEMENT NO. V—Showing the protection afforded to infants in each town in the Province of Orissa during the year 1914.

District.		Towns.	Number of births during the year	Number of deaths amongst infants under one year during the year	Number of successful vaccinations amongst infants under one year during the year	Date of extension of vaccination Act to town.	
1		2	3	4	5	6	
Cuttack	...	Cuttack	...	2,196	399	275	1st September 1884.
		Kendrapara	...	274	76	18	7th February 1888.
		Jajpur	...	15	25	..	Ditto.
		Total	...	2,595	500	293	
Balasore	...	Balasore	...	92	12	116	7th February 1888.
Puri	...	Puri	...	1,009	255	229	Ditto.
Sambalpur	...	Sambalpur	...	206	39	122	7th March 1895.
Ganjam	...	Berhampur	...	1,578	156	266	24th June 1921.
		Parlakimedi	...	517	73	267	Ditto.
		Total	...	2,095	229	533	
Total for the Province			5,997	1,085	1,293		

ANNEXURE II.

Provincial statement showing the different kinds of lymph

District.	Primary vaccination.											
	Direct from calf.					With lanoline or glycerine lymph.					Arm-to-arm	
	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.
	2	3	4	5	6	7	8	9	10	11	12	13
Cuttack	67,675	61,590	3,387	2,758	91.78	...	...
Balasore	33,370	31,427	448	1,495	98.59	...	...
Puri	31,844	24,063	884	6,947	96.65	...	...
Sambalpur	17,418	13,814	224	2,875	98.40	...	...
Angul	4,836	4,749	16	71	99.66	...	...
Khondmals	1,418	1,399	18	1	98.73	...	...
Ganjam	50,832	39,444	5,337	5,551	88.08	...	...
Koraput	26,888	19,835	4,742	1,811	80.71	...	...
Total	233,276	196,261	15,006	22,009	94.90	...	...

II.

used and their rates of success during the year 1940.

		Re-vaccination.															
vaccination.		Direct from calf.						With lanoline or glycerine lymph.						Arm-to-arm vaccination.			
Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
...	2,62,851	93,447	92,242	77,162	50.32	...	...	...	...	...
...	150,151	102,426	8,836	89,353	92.48	...	...	...	...	...
...	95,816	80,448	26,078	39,295	53.87	...	...	...	...	...
...	44,915	4,060	8,957	35,968	55.44	...	...	...	...	...
...	4,553	1,797	1,245	1,518	59.07	...	...	...	...	...
...	2,581	4,784	2,936	1,861	61.07	...	...	...	...	...
...	2,17,688	55,679	127,966	34,043	30.82	...	...	...	...	...
...	61,177	21,860	28,881	12,436	43.08	...	...	...	...	...
...	8,48,784	3,15,437	2,91,606	2,41,613	51.86	...	...	...	...	...





