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ANNUAL PUBLIC HEALTH REPORT

OF THE

PROVINCE OF ASSAM

FOR THE YEAR

1926

BY

MAJOR T. D. MURISON, D.P.H., I.M.S., DIRECTOR OF PUBLIC HEALTH, ASSAM.



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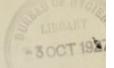
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FROM

MAJOR T. D. MURISON, D.P.H., I.M.S., DIRECTOR OF PUBLIC HEALTH, ASSAM,

To

THE SECRETARY TO THE GOVERNMENT OF ASSAM IN THE TRANSFERRED DEPARTMENTS.

Shillong, the 24th June 1927.

SIR,

I HAVE the honour to submit herewith the Annual Public Health Report of the Province of Assam for the year 1926.

Your obedient servant,

T. D. MURISON, Major, I.M.S.,

Director of Public Health, Assam.

ENCLOSURES :-

1 Report.

13 Statements.

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[Maximum limit of narrative portion of the report, 30 pages.]

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ANNUAL PUBLIC HEALTH REPORT

OF THE

PROVINCE OF ASSAM

FOR THE YEAR

1926.

SECTION I.

METEOROLOGY.

The following summary of the chief meteorological features of the province has been furnished by the Director General of Observatories:—

The cold weather period, January and February.—The western disturbances of January gave nearly general rain over the province on the 9th and 10th, and a few falls on the 19th. The total precipitation for the month was in slight excess of the normal. In February, rain fell locally or at a few stations on ten days in connection with the western disturbances. The total amount was in slight defect. The air was drier than usual in February.

The hot weather period, March to May.—In March, the western disturbances were remarkably active, and caused continuous wet weather during the first three weeks. Rain fell on a few days during the last week also. The falls were frequently widespread. The aggregate for the month was in large excess. The weather in April was also mostly wet; but the western disturbances, which affected the province, were somewhat less active than usual and rainfall was generally light. The total amount was in moderate defect. In May, rain fell on all days of the month. This constant wet weather was due partly to the passage of the western disturbances over the province, and partly to an extension of the Bay monsoon, which occurred during the last week. In connection with a storm, which formed in the Bay on the 20th and, crossing inland between Cox's Bazar and Akyab on the 22nd, disappeared over North Burma by the 24th, locally heavy rain fell over the province and a telegraphic breakdown occurred in the Assam-Burma route. Silchar recorded 5" on the 23rd. The total rainfall for the month was slightly below the average. Skies were more clouded than usual in March. Humidity was in defect in April. Maximum temperature was below normal in March.

The monsoon period, June to September.—There was nothing particularly unusual about the weather during this period. The monsoon was, on the whole, normally active, and rain fell almost daily. Considering the monthly totals of rainfall, a slight excess was registered in June and July, a slight defect in August and a moderate defect in September. The other climatic elements were nearly normal throughout.

The retreating monsoon period, October to December.—In October, the Bay monsoon was active during the first fortnight and rainfall occurred daily from the 2nd to the 13th. The falls were widespread from the 4th to the 9th. Another spell of wet weather prevailed between the 18th and 27th, in connection with a depression which moved from the Bay of Bengal into Upper Burma. The fall of 5" at Silchar on the 23rd was noteworthy. The total rainfall for the month was in large excess. In November there were only a few falls of rain between the 12th and the 15th, apparently associated with a western disturbance. The total amount was in moderate defect. In December, local rain fell on the 12th and 13th, and a few falls occurred on the 17th in connection with the western disturbances and locally heavy rain fell between the 26th and 28th, under the influence of a severe storm, which crossed into Bengal from the Bay. Cherrapunji recorded 7 inches on the 27th. The aggregate rainfall for the month exceeded twice the normal amount. Skies were more clouded than usual in December. Humidity and temperature were nearly normal.

Common rice was sold at an average rate of 61 seers for the rupee as compared

Prices of food-grains and their with 7 seers in the preceding year.

SECTION II.

EUROPEAN ARMY.

(No remarks.)

SECTION III.

NATIVE ARMY.

(No remarks.)

SECTION IV.

JAILS.

(No remarks.)

SECTION V.

GENERAL POPULATION.

Vital statistics.

2. The statistics for this report relates to a population of 6,852,242 for the plains

General census figures. Provincial birth and death-rates. Comparison with other provinces.

Registration in the hill districts is shown separately in paragraph 10 of this report.

The birth-rate of the province for the year 1926 was 30.82 per mille, compared with 29.08 in 1925, and 29.41, the quinquennial average.

The following table compares the birth-rate with those of other Provinces :-

					Mary 1	Birth-rate.			
		Provi	nc28.		10000	1920-24.	1925.	1926.	
digula l	dininies u-minos	1	a lidka sa			2	3	4	
Assam	(6)					29.16	29.08	30-82	
Bengal						28-8	29.60	27.43	
Bihar and C	Orissa					35-0	85-63	37.28	
Central Pro	vinces			I dinimit		40:54	48.90	46.03	
Madras						30.7	33.71	36.10	
Burma						29-98	25.38	27.59	
Pombay	60					33-29	34-67	37.05	
United Pro	vinces					84.57	32.73	34.20	
Punjab						40-9	40.1	41.65	
North-Wes	t Frontier	Province			,	26.8	26.86	30-19	

As in the year 1925, the birth-rate of Assam was lower than that of the provinces of Bihar and Orissa, Central Provinces, Madras, Bombay, United Provinces and Punjab.

The death-rate of Assam for the year 1926 was 23.02 per mille, the actual number of deaths recorded being 157,787.

The following table compares the death-rate with those of other Provinces :-

				MINA HE	(80) - 11	Death-rate.	
ra Veryer and	Province	is mi and	1920-24.	1925.	1926.		
(clos amiliano colo). La rope (2000).	1	(1)	Approximation		2	3	4
Assam					25.95	22.52	23.05
Bengal					27.7	24.90	24.74
Bihar and Orissa			gelen, et		28.5	23-69	25.7
Central Provinces			i ensemble		35.31	27-27	84.33
Madras					21.9	24.40	25.5
Burma	m-1		901.1		22.43	18.75	20.9
Bombay					26.36	23.67	28-58
United Provinces					30.69	24.78	25.10
Punjab	1		on		30.7	30.0	36;5
North-West Frontier	Province				26.1	19.81	21.7

The death-rates in 1923 in all provinces, with the exception of Bengal, were higher than those of the preceding year.

30.82 as compared with 199,261 and 29.08 for the year 1925 and 29.41 mean for the preceding five years. The increase in the registered birth-rate for 1926 over that of 1925 was shared more or less by all districts. As compared with the ratios of the preceding quinquennium, there was also an increase in all districts except Lakhimpur in which there was a slight fall of 17. Variations in either case were small and do not require an explanation. The highest birth-rate of 35.84 was recorded in the Cachar district and the lowest rate of 25.73 in the Lakhimpur district. The Nowgong district which returned the lowest rate of 24.72 in 1925 recorded a higher rate of 26.80 in 1926. The natural increase of population by excess of birth-rate over the death-rate for the year was 7.80 as compared with 6.56 in 1925.

4. The average birth-rate of the towns of Assam during 1926 was 30·20 per mille as compared with 30·46 in 1925 and 28·73 the quinquenBirth registration in urban nial average. In 7 towns out of 23, the birth-rate was higher than the provincial urban average (30·20). As in previous years the town of Barpeta recorded the highest rate of 66·24 per mille. The next highest rate was 47·11 in Nazira. Six towns recorded birth-rates between 30 and 40 per mille and 10 between 20 and 30. In the remaining 5 towns the recorded birth-rates were under 20. The lowest rate of 11·36 was recorded in Tinsukia, apparently due to defective registration.

5. During the year under report, 206,728 births were registered in rural areas, yielding a ratio of 30.84 per mille as compared with 194, 716 and 29.04, respectively, in the previous year and 197, 231 and 29.42, respectively, in the preceding quinquennium.

Rural circles being considered individually the Kalaigaon circle in the Darrang district reported the highest rate (49.48), followed by Dudnai (43.20) in Goalpara, Hailakandi (42.35) in Cachar, and Sorbhog (41.27) in Kamrup. The following rural circles reported rates below 20 per mille, which is probably due to defective registration—Gohpur (19.88) and Dhekiajuli (16.87) in the Darrang district, Dharmapassa (18.59) in Sylhet, Jamunamukh (17.40) in Nowgong, Majuli (12.81) in Sibsagar and Margherita (.65) in Lakhimpur.

6. The total number of deaths in the province during the year was 157,787 as compared with 154,351 in the previous year. The provincial death-rate for 1923 was 23.02 as compared with 22.52 in 1925 and 25.34, the quinquennial average. The bighest district death-rate was recorded in Goalpara (28.37), followed by Darrang (26.86) and Kamrup (25.93). In all these districts kala azar is endemic and cholera was prevalent in epidemic form.

The gradual decline in the Provincial death-rate would appear to have been maintained during the year. This has been due in large measure to the extensive campaign which has been undertaken in order to eradicate kala azar out of the province. Although the death-rate exceeded that of 1925 by 5 only, it has to be remembered that cholera was more prevalent in the province in 1926. In the Goalpara and Nowgong districts where kala azar is widely prevalent the death-rates for the year were well below their quinquennial average. In the Kamrup and Darrang districts where kala azar is also endemic the death-rates were a little higher than the quinquennial average and this was due to the prevalence of cholera in those districts.

7. During the year under report the number of deaths registered in urban areas was 3,372 as compared with 3,525 in 1925. The death-rates for the two years and the quinquennial average were 22.60, 23.63 and 23.92, respectively. The largest death-rate was reported from North Lakhimpur in the Lakhimpur district (41.70). This was due to fevers, dysentery and diarrhæa. Habiganj in Sylhet district reported a death-rate of 34.13 and this was also due to fevers, dysentery and diarrhæa. Gauhati in Kamrup district reported a death-rate of 31.49 which was due to cholera and fevers. Tezpur in Darrang district reported a death-rate of 30.37 which was due to respiratory diseases and diseases grouped under the heading "All other causes". The Civil Surgeon, Sylhet, has been asked to investigate into the causes leading to the continued high mortality in the Habiganj town through its Health Officer.

The lowest rate of 7.79 was reported from Maulvi Bazar in Sylhet district. Other low rates were Silchar (11.66) and Hailakandi (11.23) in Cachar district and Tinsukia (11.04) in Lakhimpur district. These low rates were probably due to defective registration as there is nothing to show that these places were unusually healthy during the year.

8. The total number of deaths in rural areas during the year was 154,415 and the death-rate per mille of population was 23.03 as compared with 150,826 and 22.50 in 1925 and 25.38 the quinquennial average.

Circle by circle, the highest death-rate was reported from Kalaigaon in Darrang district (50.76) due to fevers and cholera, followed by Rangia in Kamrup (44.89) due to cholera, Panerihat in Darrang (42.16) due to fevers and cholera, and Lumding in Nowgong (35.70) due to fevers. The rates reported from Majuli in the Sibsagar district (7.57) and Margherita in Lakhimpur (48) were unreliably low and must have been due to defective registration.

9. The subjoined table shows the results of the enquiries conducted by the Vaccination Inspecting Staff in compulsory urban areas Presecution under Act IV (B.C.) to test the accuracy of registration of vital statistics during the non-vaccination season of the year 1926:—

	Municipalit	ties.	amenta si	during th		Records occurrence the yea	es during	0	entage of sions.
				Births.	Deaths.	Births.	Deaths.	Births.	Deaths.
	1			2	3	4	5	6	7
Silebar			4.1			. 111	87		
Hailakandi	****					33	19		· · · · ·
Sylhet					1	514	377		.26
Karimganj				9	3	105	91	7.89	3 19
Maulvi Baza	r			3		47	26	6.0	
Habiganj				2	1	171	201	1.15	.49
Sunamganj	0 I			2	1	133	128	1.48	.77
Dhubri				18	15	213	163	7.79	8.43
Goalpara	o tomoció			4	4	183	113	2.14	3.42
Gauripur				61	27	101	57	37-65	32.14
Gauhati		,		11	13	422	506	2.54	2.50
Barpeta				8	1	769	301	1.03	.23
Tezpur	T			16	7	191	216	7.73	3.14
Mangaldai				7	6	23	20	23.33	23.08
Nowgong			15 111	11	8	214	162	4.89	1.82
Jorhat			ml	11	5	166	127	6.21	3.78
Sibsagar	•••			11		134	79	7.58	
Golaghat				9	6	57	74	13.64	7.50
Nazira	1		M	4		120	41	3.23	
Dibrugarh				15	12	350	299	4.11	3.86
North Lakh	impur			4	7	59	75	6.35	8.53
Doom-Doom	a					23	26		
Tinsukia				9	2	26	33	25.71	5.88
Shillong						505	231		
	Total			215	114	4,675	3,451	4:40	3.20

A total of 312 persons were prosecuted for failing to register an occurrence of a birth or death and 149 persons were convicted and fined. No prosecution was instituted in Silchar, Hailakandi, Doom-Dooma and Shillong towns. An enquiry will be made in order to ascertain whether house to house inspections were carried out

according to departmental instructions to detect omissions in the non-vaccination season. In general, the average fine inflicted per person amounted to Re. 0-13-4. As anticipated the percentage of omissions detected was high in small towns, viz., Gauripur, Mangaldai and Tinsukia in which registration is known to be very defective.

Registration in hill districts.

10. The following table shows the recorded birth and death-rates in hill districts:—

			1926.		1925.	
	Districts.	manit.	Birth-rate.	Death-rate.	Birth-rate.	Death-rate,
Khasi and Jaintia Hi	lls		 28.15	12.75	23.65	14.06
Naga Hills		111	 24.51	21.47	16-10	19.65
Lushai Hills	en	10	 49-37	28-73	48.12	26.55
Garo Hills	TT	A13	 28-69	21.98	29-17	22.98

The general health of the Khasi and Jaintia Hills district during the year was good. There was no epidemic disease except cases of cholera which occurred sporadically in Cherra and other parts of the district in the months of June and August 1926. The infection was brought into the district from the adjoining plains districts. Contacts were promptly inoculated with cholera vaccine and the spread of the infection effectively stopped.

A Sub-Assistant Surgeon of the Epidemic Unit was sent to investigate into a suspected outbreak of cholera in a village named Mawsynram. The source of infection could not be traced, and it was doubtful if the outbreak was really cholera. As a precaution, however, 446 persons were inoculated with cholera vaccine.

Five hundred and five births and 231 deaths were reported from the Shillong Municipality, yielding ratios of 29 35 and 13 43, respectively, per mille of population. Four suspected cases of cholera occurred in the Municipality. The segregation of the sick in the isolation hospital outside the town and inoculation of the contacts terminated the infection in no time. Six and one cases of typhoid and diphtheria, respec-tively, were reported from the Municipality. In the Naga Hills district registration is confined to Kohima town and Dimapur rural area whose total population amounts to 4,936 only, and therefore the ratios shown above do not represent the health of the whole district. The bulk of the mortality in the above area is attributed to fevers. Anti-malaria work on similar lines to those undertaken in 1925 was carried out for about 7 months in the Kohima town. This had the effect of reducing the incidence of malaria amongst the local population and improving the general sanitary condition of the town. Malaria is reported to be prevalent throughout the district. Amoebic dysentery in epidemic form was detected in a village. Suitable instructions as to the disposal of the dejecta of the patients were given and fly paper was distributed to the affected houses to minimise the evil of propagation of the disease. A special Compounder was provided. There were 225 cases in all, children being more affected than adults. In the month of May a village in the Mokekchong subdivision was infected with small-pox. The infection was brought from the plains. A total of 227 cases occurred, of which 35 ended fatally. A Vaccinator was at once sent to the village and 241 vaccinations were performed. A small epidemic of small-pox was also reported from the Colliery Station of Borjan. The infection was brought by the labourers working in the Colliery from the neighbouring district of Sibsagar where the disease was widely prevalent. There were altogether 6 cases and no deaths. The Medical Officer of the Colliery vaccinated all contacts.

The general health of the Lushai Hills district was not so good as in the previous year. This was due to an outbreak of influenza in certain villages, both in the Aijal and Lungleh subdivisions. A campaign in connection with the treatment of syphilis by intravenous injections of Neo-Kharsivan was begun in the month of July 1926. The chief of each village was ordered by the Superintendent to send in persons suffering from the disease to the nearest hospital for treatment. Itinerating Sub-Assistant Surgeons also search for cases when visiting villages. There were fewer deaths from malaria and kala azar in the Garo Hills district in 1926 as compared with that of

1925. The decrease in the latter was due to the fact that more cases were brought under treatment. There are a large number of lepers in this district for whom treatment arrangements are being made. A Sub-Assistant Surgeon has been trained in the technique of leprosy treatment. The establishment of a leper colony in this district is at present under consideration. A few sporadic cases of cholera and small-pox were reported during the year.

The number of births and deaths recorded in the Sadiya Frontier Tract in 1926 was 619 and 433, as compared with 568 and 475, respectively, in 1925. Malaria accounts for the largest number of cases treated in the various dispensaries. Goitre

appears to be very prevalent among the hill tribes.

Registration in tea gardens.

11. The following table shows the birth and death rates reported from tea estates during the year 1926:—

2 6 2 3 B C 2 3 1	Dis	tricts.			rate.	Death-rate.
otast state	Coalesta.	1	II, SC SI	LICE BOOK	2	3
Cachar					34-71	19.57
Sylhet					31.53	15.58
Goalpara					33-92	27.93
Kamrup					14.07	13.61
Darrang					25.66	18.85
Nowgong					28.50	18-45
Sibsagar					31-18	17.09
Lakhimpur					26-19	21.28
		Total			29.58	18.57

There was a natural increase of 11 per thousand of population in tea estates during the year. The increase was most marked in Cachar (15·14) and Sylhet (15·95) both in the Surma Valley. The figures probably represent the more favourable conditions under which the coolies now live and which has been brought about by the greater care for the health and general welfare for the garden population which has been effected by the Managers of the gardens. One hundred and twenty-seven deaths from kala azar were reported from certain tea estates, in the district of Darrang (48), Nowgong (38), Sibsagar (26), Sylhet (13) and Goalpara (2). Garden authorities are fully alive to the risk of the spread of infection, if not immediately checked. Tea gardens are now treating their patients with Urea Stibamine. Arrangements have been made by the Public Health Department with the manufacturers to supply tea gardens with the drug at the concession rate of Rs. 2 per gramme in all sizes of ampoules.

12. The total number of births and deaths recorded within railway limits during the year were 134 and 336, respectively, against 110 and 325, respectively, in 1925. The bulk of these deaths was reported from the Lakhimpur district mainly under heads "Respiratory diseases" and "Other causes".

Seasonal incidence of births and deaths.

Seasonal incidence of births and June. As usual high birth-rates were recorded in January, November and December and low birth-rates in June and July. As regards deaths, the highest death-rates were recorded in May (2 38) and June (2 39) when cholera was prevalent in epidemic form in certain districts. The lowest death-rate (1 44) was recorded in March.

Mortality according to age, sex age and the lowest among persons between 10 and 15 years. The total combined mortality amongst males was as usual higher than that amongst famales, their proportion being 111 to 100. There were as usual differences in the death-rate amongst the different classes of the community. The death-rate was the highest amongst other classes (34-89) and the lowest amongst Christians (18-56). Those of Hindus, Muhammadans and Buddhists were 21-58, 22-71 and 25-52, respectively.

The infant mortality rate for the year 1926 is compared below with those of the previous five years :-

Years.			Dea	Deaths of infants.			Death-rates of infants.			
16	ire.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1		2	3	4	5	6	7	8	9	10
1921		105,395	97,758	230,153	21,174	16,864	38,038	200.90	172.50	187-23
1922		100,433	94,465	194,898	21,268	17,361	38,629	211.76	183.78	198.20
1923		101,861	95,657	197,518	19,367	16,689	35,456	190-13	168-19	179.50
1924		110,107	102,648	212,755	21,636	17,671	39,307	196-49	172-15	184-75
1925		103,009	96,252	199,261	19,009	15,733	34,742	184.53	163.45	174.35
1926		108,967	102,266	211,233	21,059	17,403	38,432	192-98	170-17	181.94

In the subjoined table the infant mortality rate of Assam is compared with those of other provinces:—

Assam			 		181:94
Bengal			 		196.79
Bibar and	Orissa		 ***		147.71
Central Pa	rovinces		 		253-38
Madras			 		189-52
Burma			 	***	201.40
Bombay			 1		194-64
United P	rovinces		 		177.35
Punjab			 		203.43
North-We	est Frontier P.	rovince	 		146.57

Magic lantern slides on Child Welfare are being regularly demonstrated by Medical Officers in the course of their visits to villages in connection with the campaign against kala azar. It appears that Indian ladies are taking a keen interest in these demonstrations and when they assimilate in the course of time some of the knowledge being imparted to them for the care and welfare of their infants, a substantial reduction in the infant mortality rate may be anticipated. A permanent Child Welfare centre has been opened in Shillong. In some towns Baby Week is held and much useful work is being done.

Inspection of village register of vital statistics.

Inspection of village register of vital statistics.

Ces and detected 2,871 omissions during the year 1926 as compared with 63,670 and 2,971, respectively, in1925.

During the year two members of the Vaccination Inspection in small-pox infected villages. This accounted for a smaller number of entries being verified during the year. The percentage of omissions in the entries detected to the total number examined during the year was 5.52 against 4.66 in the previous year. The percentage of omissions was the highest in the Kamrup district (17.23) followed by Goalpara (16.85).

16. There was no change in the agency for the collection and registration of vital statistics. Four rewards of Rs. 20 each were, as in previous years, granted to selected gaonburas in each subdivision in Kamrup, Darrang, Nowgong and Lakhimpur districts.

Weekly epidemic reports from all districts, showing the number of cases and deaths from cholera, small-pox, influenza and plague are obtained, printed and circulated. They are also published in the Provincial Gazette. This serves a useful purpose as it keeps the public fully informed of the prevalence or not of the chief epidemic diseases in their midst.

SECTION VI.

HISTORY OF CHIEF DISEASES.

17. The following statement compares the ratios under the chief heads of mortality. Chief causes of mortality. tality in 1925 with the mean ratios of the previous ten years:—

				1916-25.		1926.			
Discuses.	Urban.	Rural.	Combin- ed.	Urban.	Rural.	Combined			
1		HYAN S	2	3	4	5	6	7	
Cholera Small-pox			1.17	1.95	1.92	·71 ·12	1.51	1.49	
Plague Fevers			7.01	17:08	16:81	7-23	13.81	13.67	
Dysentery and diarrhœa Respiratory diseases			3.85	1.76	2.23	3.23 2.73	138	1.43 .77 .28	
Injuries All other causes			7.45	5 02	5.06	8·01	-27 4-58		
T	otal		23.32	28.76	28.53	22.60	23 03	23.02	

The fall in the urban mortality under cholera during the year 1923 as compared with the decennial average appears to be due to greater attention being paid by Municipal Boards to improvements in conservancy and water-supplies. The substantial reduction in the rural mortality under fevers was, as noted in the last report, due to the extensive treatment of kala asar patients.

INFLUENZA.

A total of 77 deaths from influenza was reported in 1926 as compared with 103 in 1925. The disease did not break out in epidemic form in any district.

18.—CHOLERA.

			70.60			95	Death-rate pe	r mille.
			Distri	ict.	dant a	1916-25.	1926.	
that yes -	oline of		1				2	3
Cachar							2.21	-27
Sylhet			***				1.99	.74
Goalpara		***		***			1.42	2.49
Kamrup						***	3.63	6.65
Darrang							2.87	1.31
Nowgong							1.63	1.14
Sibsagar							.94	.11
Lakhimpur							.59	.16
				Total			1.92	1.49

The provincial death-rate from cholera rose from '90 in 1925 to 1'49 in 1923 but it was below the decennial average (1'92). The district of Kamrup recorded the highest death-rate from the disease, viz., 6'65. Gauhati subdivision was affected more heavily than Barpeta. The source of infection was traced to the foot of the Bhutia Hills where a mela was held. The first report of the epidemic reached the Civil Surgeon when it appeared in the Rangia circle. From here it spread along the villages on the banks of the Barolia river and its tributaries. As it was impossible to disinfect the rivers, cholera inoculation was adopted with excellent results as a preventive measure. The services of the Epidemic Unit staff was utilised principally in the treatment campaign. They were assisted by the Sub-Assistant Surgeons on

kala azar duty. Goalpara, Nowgong and Darrang districts were also infected with cholera though to a less extent. Here too anti-cholera inoculation was resorted to. It is gratifying to note that these inoculations are rapidly becoming increasingly popular in Assam as will be seen from the following table showing the quantity of vaccine issued in the last three years:—

Cholera vaccine issued in-

1924	 	 	 75,295c. cs.
1925	 	 	 103,930 ,,
1926	 	 	 154,760 ,,

Prior to 1924 very little vaccine was used except in tea gardens. In 1925, with the introduction of the two Epidemic Units, inoculation was started on a large scale. In a country like Assam our mainstay in combating outbreaks of cholera must be by inoculation. It is gratifying to know that people have come to realise and appreciate the efficacy of this method of protection against the disease. In order to still further popularise and to demonstrate the efficacy of the vaccine, Civil Surgeons and the Assistant Director of Public Health are immediately supplied with the quantities of the vaccine which they require. In the event of Local and Municipal Boards being unable to pay for the vaccine used by them, the cost is borne from the Epidemic Grant in the Public Health budget.

The difficulty in combating epidemics in Assam and bringing them rapidly under control with a minimum death-rate is due to a deplorable shortage of fully trained personnel. Two Epidemic Units and one since sanctioned after the close of the year are quite inadequate to meet the needs of the whole province. I have submitted to Government a proposal for the reorganisation of the Department which, when sanctioned, will very considerably strengthen the position of the Public Health Department in combating these appalling epidemics and thereby very considerably reducing the unnecessarily high death-rate from diseases.

High rates of mortality from cholern in individual towns and rural areas.

(2.60), Karimganj (1.98), Mangaldai (1.95) and Sunamganj (1.64). In Gauhati, the infection was imported from neighbouring rural areas where the disease prevailed in has a pipe water-supply of filtered water. Karimganj, Mangaldai and Sunamganj have no protected water-supply and their sanitary arrangements are otherwise defective. No case of cholera was reported from nine towns during the year.

Among rural circles, Rangia in Kamrup reported a mortality of 22.18 per mille. This area was severely infected as noted in the preceding paragraph and necessary preventive measures were immediately undertaken to stamp out the disease. The next highest rate of 12.58 was reported from the Kamalpur circle in the same district. Seventeen rural circles escaped infection from the disease.

20. Total of 449 deaths from cholera were reported from tea estates during the year as compared with 652 in 1925, the ratios per mille being 49 and 71, respectively. The highest rate, viz., 3.22 was reported from Goalpara. In all other districts the ratio was well below 1 per mille.

21.-SMALL-POX.

		Di-	Districts.			Death-rate p	er mille.
		Di	serious.			1916-1925,	1926.
		110 2	1			2	3
Cachar		A PARTY			1010	-33	·01
Sylhet		***				-18	•08
Joalpara						.45	.50
Kamrup						.72	1.19
Darrang						•49	-45
Vowgong					***	1.38	.01
Sibsagar	***	107***				.57	3.57
akhimpur						•08	•21
				Total		•41	-70

The death-rate from small-pox in 1926 was '70 per mille as compared with '40 in 1925 and '4 the decennial average. The disease prevailed in an epidemic form in the Sibsagar and Kamrup districts which reported the highest rates of 3.57 and 1.19, respectively The epidemic has persisted in the Sibsagar district throughout the year and into 1927. Vaccinations and revaccinations are being carried on as energetically as possible but the epidemic has not yet subsided. All mauzas reporting small-pox and where there has been opposition to vaccination have been notified as small-pox infected areas. In these localities the special regulations which have been framed under the Epidemic Diseases Act making vaccination compulsory have been enforced. A section of the Epidemic Unit has been sent to push on vaccination systematically in the Sibsagar subdivision which area is now badly affected. Unscrupulous opposition on the part of the local people generally to vaccination and their habit of secreting cases on superstitious grounds continue to maintain foci of infection. This is clearly borne out by the fact that as soon as infection dies out in one place, it reappears in another. Under these circumstances the difficulty of completely eradicating the disease from the district is made much more difficult. In the Kamrup district too there is much opposition, but vaccination and revaccination are being pushed on as much as possible in spite of difficulties. It is my considered opinion that the present vaccination inspecting staff is inadequate for the needs of the province. I have suggested an addition of 10 members to the staff to admit of two Sub-Inspectors being posted to a bigger and more populous subdivision. As there is no means of controlling epidemics of small-pox other than by vaccinations and revaccinations, the district staff for the purpose should be adequate to meet the needs of the district. Local Boards should increase the number of vaccinators whenever necessary.

All Municipal Boards other than Shillong, Gauhati, Dhubri and Tezpur should provide well equipped isolation hospitals for segregation of patients. The present practice of isolating cases in a ward of a charitable dispensary is both unsound and does not work well in practice. Information as to the number of patients treated in a special isolation hospital and their vaccinal condition is given below:—

Municipal towns.		Number of small-pox patients treated.	Number of small-pox patient treated. Vaccinated as evidenced by presence of one or more vaccination cicatrices. Stated to have been succesfully vaccinated but no vaccination cicatrix present.		Stated to be unvaccinated (or vaccitated unsuccessfully) and no vaccination cicatrix present.	Previously unvaccinated but vaccinated during incuba- tion of small-pox.	Stated to have been successfully revaccinated,	
1		2	3	4	5	6	7	
Habiganj		4	4					
Gauhati		3			3			
Tezpur		2	2					
Shillong		1				1		

22. North Lakhimpur (1·02), Jorhat (·91), Nazira (·76), Golaghat (·55), Sibsagar (·38), Tezpur (·27), Gauhati (·12) and Barpeta (·08) are small-pox in individual towns and rural areas.

(·38), Tezpur (·27), Gauhati (·12) and Barpeta (·08) are the towns in which a few sporadic cases occurred. All other towns were free from the disease. The towns in the Sibsagar and Kamrup districts which suffered severely from the epidemic could not as a matter of course escape infection.

Among rural circles, Amguri (7 28), Teok (6 98), Jorhat (6 13), Dergaon (5 61), Sibsagar (5 10), Golaghat (4 85), Nazira (4 65) all in the Sibsagar district and Gohpur (4 91) in the Darrang suffered from an epidemic of small-pox during the year. Thirty-seven rural circles were free.

23.-FEVERS.

						Death-rate	per mille.
		1 1 1 1 1 1 1	Districts.			1916-25.	1926.
Second in		ad trapid	1	his ma	ella mission Sont do Ass	2	3
achar						 14.88	9.75
ylbet						 16.96	12.76
calpara						 27.15	23.86
amrup						 17.86	13.88
arrang						 16.08	16:87
lowgong						 16.25	15.08
ibsagar						 11.81	3.21
akhimpur						 10.99	10.16
Tot	al					 16.81	13.67

The death-rate from fevers was 13.67 against 14.30 in 1925 and the decennial mean of 16.81. This decrease is chiefly attributable to an actual decrease in the prevalence of kala azar, for the treatment of which a very extensive and well organised scheme is in operation. The death-rate from fevers was, as in previous years, the highest in the Goalpara district (23.83) and the lowest in Sibsagar (9.21).

MALARIA.

No new anti-malaria measures of any magnitude was undertaken in Assam during the year. The price of prophylactic quinine was further reduced from Re. 0-6-0 a treatment tube to Re. 0-4-6. This has brought the drug within the reach of the poor.

The more expensive anti-malaria measures, such as the clearance of jungles and undergrowths, improvement of drains and treatment of sheets of water with kerosine oil were carried out in certain localities. The details of these measures are given below:—

Anti-malarial measures were continued at Pasighat, Lumding, Haflong and Kohima.

Jungle clearing was carried out all round Pasighat. The Mora-Lalli river in that town was cleaned and drained for an additional distance of about 400 yards south-west. Its banks were trimmed and low lying places filled in or drained. Systematic oiling with drip-cans and oil spraying were carried out in the Mora-Lalli and also in the stream behind the Assistant Political Officer's bungalow during the hot weather. A prophylactic issue of chinchona and quinine was made to both Assam Rifles and permanent coolie corps establishment on three days a week. Mosquito nets were also provided. Although there was a slight rise in the percentage for malaria in 1926 it was much less than in 1924.

The routine of oiling as a preventive measure against mosquito breeding was continued and many breeding places were filled up at Lumding. There was a reduction in the number of malaria patients from 1,690 in 1925 to 1,008 in 1926.

An anti-malaria gang of 7 men under a gang overseer worked all over the town of Haflong. The duty of this gang is to clear drains and sprinkle kerosine oil by means of drip-cans, of which 22 were in use on all possible breeding grounds. The station was kept clear of jungle and undergrowth. The work is carried out by the Subdivisional Officer under the instructions of the Civil Sargeon, who generally inspects the station once in every month. The general sanitation of the place was considerably improved and there were fewer cases of malaria than in the previous year.

The anti-malaria work at Kohima began on 10th June and ended on 31st December 1923. As in the preceding year a staff of 1 sardar, 1 assistant sardar and 30 coolies were engaged. Their work lay principally in keeping down all scrub in the station from its western extremity near Kuki picket to the outskirts of the Kohima village. All trickling streams were bunded to get an expanse of water which could be treated with oil. Oil drip cans were constructed and placed in the main pools.

They acted satisfactorily and lightened the work of the staff employed for oiling of streams and pools. The result of these measures was the complete absence of mosquitoes from the station during the year. There was generally a diminution in the number of malaria cases treated in the various institutions in the station except in the 3rd Assam Rifles Hospital. Several recruits were taken into this Battalion who were badly infected with malaria prior to their arrival in the station. They were admitted several times both as indoor and outdoor patients and thus swelled the number of cases treated in the hospital.

A decrease in rainfall, and the prophylactic issue of quinine to men of the Assam Rifles might have contributed to the decrease in the malaria incidence during the year.

The Doom-Dooma Tea Company and the Assam Frontier Tea Company are carrying out certain anti-malarial measures on their tea estates in the Lakhimpur district, details of which are n t yet available.

24. The rates reported from the towns of Doom-Dooma (16:35), North Lakhim-High rates of mortality from pur (15:26), Nazira (12:54), Gauhati (11:95), Mangaldai (11:73), Golaghat (10:94) and Sibsagar (10:34) were high. There is no Medical Registrar in any of these towns except Gauhati and it is probable that deaths due to other diseases, whose principal symptom was fever, have been erroneously misclassified under "Fever". The high mortality from fevers in Gauhati conclusively indicates the necessity for more attention being paid to the question of drainage and jungle clearing by the local authority.

Among rural circles, Kalaigaon (37:47), Panerihat (29:21), Behali (21:51) and Mangaldai (20:77) in the Darrang district, Lumding (34:84) in Nowgong, Golakganj (29:58), North Salmara (26:82), Kokrajhar (26:61), Mankachar (26:50), Goalpara (24:51), Dudnai (22:96) and Dhubri (22:49) in Goalpara, Doom-Dooma (22:99) and Moran (22:60) in Lakhimpur and Jaintiapur (20:23) in Sylhet reported high rates of mortality from fevers, due mainly to kala azar or malaria. Deaths resulting from other causes are also attributed to fevers by ignorant gaonburas and chaukidars.

**EALA AZAR.

25. The following table shows the number of deaths from kala azar from 1917

Districts.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.
ring provious years.	2	3	4	5	6	7	8	9	10	11
Cachar	1	4	3	5	1		4	2	3	9
Sylhet	31	34	7	26	183	275	841	1,874	2,109	1,320
Goalpara	153	313	311	602	557	253	442	309	453	297
Kamrup	287	564	423	931	755	450	976	1,152	1,120	714
Darrang	245	263	171	256	169	202	289	448	478	474
Nowgong	591	565	559	846	1,172	933	1,291	1,479	1,445	839
Sibsagar	181	235	168	114	121	128	289	235	200	170
Lakhimpur	1	3	5		3	4	13	13	8	1
Khasi and Jaintia Hills					2 -11 0	***			8	4
Lushai Hills										1
Naga Hills						pall, el			1	
Garo Hills	18	22	20	18	26	47	54	69	435	340
Sadiya Frontier Tract			Si-way				2	4	3	1
Manipur State					100	in this	141.7		2	i empo
Total	1,508	2,003	1,667	2,798	2,987	2,292	4,131	5,585	6,365	4,176

The following table shows the number of kala azar cases treated from 1920 to 1926:—

Districts.		1920.	1921.	1922.	1923.	1924.	1925.	1926.
1	Polley	2	3	4	5	6	7	8
Cachar	4	75	316	210	332	253	442	333
Sylhet		158	2,837	5,148	9,278	16,516	10,934	13,855
Goalpara		1,569	2,500	2,731	4,176	5,016	6,003	5,671
Kamrup	1	2,402	* 3,491	2,700	4,098	5,780	8,758	7,301
Darrang		387	1,360	1,229	2,416	3,286	5,262	4,414
Nowgong		1,816	4,343	5,934	11,847	13,625	13,895	9,586
Sibsagar		659	875	1,307	2,143	2,929	3,285	2,658
Lakhimpur		9	22	12	68	81	99	20
Khasi and Jaintia Hills		54	52	59	120	274	213	198
Naga Hills					4	8	4	2
Garo Hills		43	84	329	589	985	1,952	2,812
Sadiya Frontier Tract			200	7 11 000	l villad	total los	8	bahaa4
Manipur State						22	85	31
Total	6	7,188	15,880	19,659	85,071	48,770	60,940	49,385

The number of deaths from kala azar fell from 6,365 in 1925 to 4,176 in 1926. All districts except Cachar which is lightly infected contributed more or less to the decrease. There was a substantial decrease in the districts of Sylhet, Kamrup and Nowgong, which had returned the largest number of deaths during previous years. The number of kala azar patients treated also fell from 60,940 to 49,385 in 1926. As the same organisation for treatment and survey existed in both years, the fall both in the number of deaths and cases treated indicates that the disease is now under control and its further spread arrested. The percentage of deaths to the total treated was 8.48 against 10.44 in the preceding year. As in previous years Sub-Assistant Surgeons in charge of special kala azar dispensaries, State or Local Board dispensaries continued to search for cases within a radius of five miles of their dispensaries and out-centres and bring them under treatment. Treatment is growing in popularity and the number of cases stopping treatment before completion fell by 1,212. Civil Surgeons of infected districts are responsible for the proper and efficient execution of the operations against the disease. They must tour extensively and regularly. in their districts, inspecting and checking the work of subordinates under their control All returns and correspondence in connection with the disease are submitted by them to the Director of Public Health and for this purpose they are provided with a special kala azar clerical staff. Only one Assistant Director of Public Health has been provided for the province. His headquarters are at Sylhet which is by far the largest and most heavily infected district in the province. In this district a sub-board of the Health Board (Epidemics) has been constituted for purposes of dealing with the campaign against the disease. It consists of the Civil Surgeon as President and the Assistant Director of Public Health as Secretary. All matters of policy in connection with kala azar in the district are discussed by this sub-board and then submitted to the Health Board (Epidemics) for approval. As stated above this district is a very extensive one and comprises five subdivisions. The Assistant Director of Public Health, who tours almost continuously, relieves the Civil Surgeon of much of his tours in connection with kala azar and so enables the latter to devote more time to his ordinary duties at headquarters. Each Civil Surgeon of an infected district is provided with a special kala azar Assistant Surgeon, who is borne on the cadre of the

Department of Public Health. He is constantly on tour in the district inspecting and checking the work of the Sub Assistant Surgeons and bringing all matters of importance to the notice of his Civil Surgeon. One of his principal duties is the checking of kala azar surveys.

In each infected district all Local Board Sub-Assistant Surgeon in charge of Local Board dispensaries in infected areas must take part in the campaign against the disease in addition to their ordinary medical duties. Each of these dispensaries is fully equipped with apparatus and medicines for carrying out treatment. Each Local Board Sub-Assistant Surgeon has been trained to diagnose the disease and to treat it by intravenous injections. He must treat all kala azar patients attending at the dispensary and, in addition, is held responsible for the discovery and treatment of all fresh cases in villages within a five-mile radius of the dispensary. In order to do this he must visit and revisit all these villages regularly and constantly. Powers to compel attendance at a dispensary or hospital have been provided in the Regulations framed under the Epidemic Diseases Act. Unwilling patients are reported by the Sub-Assistant Surgeon to the headquarters or subdivisional executive authority who compels the attendance of the patients at the dispensary.

Patients who are too ill to attend at outdoor dispensaries are admitted as indoor patients at headquarters and subdivisional dispensaries and also at special kala azar hospitals.

In more heavily infected areas not falling within the jurisdiction of Local Board dispensaries, special kala azar hospitals and dispensaries have been provided. These are intended solely for the treatment of kala azar and its complications and are staffed by special temporary kala azar Sub-Assistant Surgeons. These Sub-Assistant Surgeons are passed through a course of training in the diagnosis of the disease and the technique of its treatment. Each special kala azar hospital and dispensary is fully equipped with apparatus and medicines for the treatment of the disease and its complications. These special Sub-Assistant Surgeons are placed in charge of a special kala azar dispensary and generally have in addition two out-centres located within a five-mile radius of the dispensary. At all hospitals, dispensaries and out-centres, injections are given twice a week. The Sub-Assistant Surgeons in charge have to visit and revisit all villages within a five-mile radius of the dispensary and out-centres with a view to discovering all fresh cases and bringing them under treatment. Recalcitrant patients are dealt with as in the case of Local Board dispensaries.

Special kala azar hospitals have been opened in heavily infected areas where there is either no convenient indoor dispensary or where the indoor accommodation available is insufficient to accommodate all the bad cases.

Areas not covered by Local Board and special kala azar dispensaries and hospitals with their out-centres are most carefully watched for the first indications of the disease. Whenever the disease is suspected in these areas, special kala azar Sub-Assistant Surgeons are drafted in for the purpose of carrying out detailed kala azar surveys. Before the surveys are undertaken the special Sub-Assistant Surgeons are provided with "village census reports" and maps of the areas under suspicion. They are given definite tour programmes by Civil Surgeons and with "Formol-gel Test Boxes" they enter the areas and proceed from house to house making a record of all suspected fever cases. The "Aldehyde Test" is performed on selected cases of fever in order to eliminate chronic malaria. The special kala azar Assistant Surgeons are responsible for the careful checking of these special surveys as well as the ordinary village visiting. If cases of the disease are found in these areas and they cannot be conveniently treated at existing dispensaries and hospitals, one or more special kala azar dispensaries are immediately opened at suitable places for the treatment of the newly discovered cases.

The number of hospitals and dispensaries with their out-centres treating kala azar in the province are as follows:—

Special kala azar hospitals	***			14
Special kala azar hospital out-centres				7
Special kala azar dispensaries				90
Special kala azar dispensaries out-centres			***	128
Local Board and other dispensaries	***			116
Local Board and other out-centres		5 10 L		60

The treatment of the disease in Assam with Tartar Emetic began in 1919, when only a comparatively small number of cases were treated. It was soon realised that this drug was not without its dangers and it was soon replaced by Sodium Antimony Tartrate, which was found much safer and gave much more satisfactory results. In the special kala azar dispensaries, and out-centres Sodium Antimony Tartrate, manufactured by Messrs. Burroughs Wellcome and Company, London, and put up in "Soloids" form is used exclusively. It is passed through a severe test for purity before being supplied to the Assam Government. Local Boards at their discretion use either the ordinary Sodium Salt or Soloids. Treatment with Sodium Antimony Tartrate in 1 per cent. solution given in divided and increasing doses over a period of three months is the method employed. It has been estimated that from 200 to 300 ccs. of this solution is necessary to effect a cure in the average adult patient. As outdoor patients cannot be placed under constant observation for signs of intolerance to the drug it is considered advisable to administer smaller doses than those usually given in indoor hospitals. The initial dose was therefore fixed at 2 c. cs. increasing each successive dose by \frac{1}{2} c. c. until the maximum of 8 c. cs. was reached. Although treatment with this drug has been very successful, it has the disadvantage of being long and tedious. Treatment is, therefore, difficult to enforce, as patients who have been completely incapacitated by the disease, improve so considerably after a few injections that they discontinue treatment altogether or attend very irregularly. This irregularity makes it very difficult to effect complete cures. In spite of the regulations in force under the Epidemic Diseases Act to compel patients to undergo a complete course of treatment, our campaign against the disease is being greatly handicapped by the large number of patients who are stopping treatment. To overcome this difficulty communiqués are being regularly issued inviting the co-operation of the people. Much propaganda work is being done by means of lantern demonstrations and illustrated posters and pamphlets on the disease, emphasising the grave dangers of stopping treatment before a complete cure has been effected. This has had some effect in reducing our" Stopped Treatment" cases. It was felt that the above difficulties would be still further overcome if some drug could be introduced which was not only as efficacious as Sodium Antimony Tartrate but took a much shorter time to effect a cure.

In 1923 certain organic aromatic compounds of antimony appeared on the market and it was claimed for them that they were not only more efficacious than the ordinary Antimony Salts, but effected cures in a considerably shorter period. Varying amounts of these were supplied by the manufacturers. Very careful and most detailed experiments have been carried out with these drugs in the kala azar research wards attached to the Pasteur Institute and Medical Reseach Institute at Shillong. Research work is still being carried out at these wards with these and other more recent preparations for the treatment of kala azar. These researches have been of the very greatest assistance in helping on our campaign against the disease. In 1924 it was hoped that one of these drugs would soon replace Sodium Antimony Tartrate, but for financial reasons this was not possible on a large scale. The cost of these new organic antimony preparations was prohibitive and it was found impossible to employ them on anything like the necessary scale. In 1925 there was a marked reduction in the prices of these drugs, due to competition, and the Government of Assam decided to carry out treatment with Urea Stibamine (Brahmachari) and "471" (Von-Heyden) as an experimental measures. In the middle of 1 25 sanction was given to the treatment with Urea Stibamine and "471" of all indoor kala azar patients and 10 per cent. of those out-door patients attending at the indoor hospitals. In order to undertake this new departure satisfactorily the staff concerned was brought up to Shillong and trained in the technique of Urea Stibamine and " 471" injection at the Pasteur Institute and Medical Research Institute. The results achieved have proved most satisfactory and encouraging, and at the close of the year the question of using Urea Stibamine for all kala azar cases was under consideration.

The surveys which have been strenuously carried out in the villages are revealing the fact that fewer cases are being discovered in the earlier stages of the disease. This indicates that kala azar is being brought more and more under control.

I have to express my grateful thanks to the Civil Surgeons of kala azar infected villages and to their subordinate officers for their whole-hearted co-operation and excellent work in connection with the campaign against the disease. Local and Municipal Boards have also co-operated and without the able assistance which has been received from the above the campaign against the disease would not have reached the high standard of efficiency which has been maintained during the year.

The following Sub-Assistant Surgeons and Local Board doctors did excellent kala azar work and deserve special mention:—

Srijut Hem Chandra Barua. Babu Hirendra Chandra Endo.

- " Rasik Chandra Gupta.
- " Sarat Chandra Chakravarty.
- " Kshirode Chandra Chowdhury.
- " Sashi Kumar Deb Laskar.

Maulvi Mahammad Easin Ali. Babu Jogesh Chandra Das Gupta.

" Poresh Nath Sen Gupta.

Babu Dindayal Kamarkar.

.. Narendra Nath Bose.

Srijut Dharani Kanta Barua.

" Ram Prasad Kakati.

Babu Rash Behari Dutta.

- " Kailash Chandra Pal.
- " Dwarika Nath Datta.
- " Ramani Kanta Mahinta.
- " Ram Lal Majumdar.

26.-DYSENTERY AND DIARRHŒA.

		7:1	Mairo:		hell oil	Death-rate	per mille.
		Dist	rict.		38	1916-25.	1926.
				1000	ond the	2.21	2.16
Cachar	•••		***			1.61	1.36
Sylhet			***		200	32	*32
Goalpara		***	***	A 14 TO	18	.81	-84
Kamrup	***	***				2.76	2.59
Darrang				- 1		-79	•79
Nowgong				***			1.59
Sibsagar		***				2.94	
Lakhimpur						3 49	2.58
- Park				1 120210	-		
				Total		1.78	1.48

The death-rate from dysentery and diarrhoea was 1.43 in 1926 which is higher than that of 1925 by '09 but lower than that of the decennial average by '35.

The mortality on tea gardens from these causes during the year was 3.51 as compared with 3.54 in 1925, a little increase being reported from Cachar, Darrang and Lakhimpur districts. The gradual and steady fall in the mortality under this head is due to the improvements in the conservancy and water-supply arrangements which are being carried out in gardens.

27. No case of plague was reported during the year.

OTHER CAUSES.

28. The death-rates from "Respiratory diseases," "Injuries" and "All other causes" were '77, '28 and 4'66, as compared with '81, '28 and 4'46, respectively, in 1925. There were no big variations under any of these heads of mortality requiring an explanation.

PUBLIC HEALTH PROPAGANDA.

This consists of propaganda amongst the general public and in schools. Propaganda amongst general public comprises lantern demonstrations. These are delivered by Special Kala azar Assistant Surgeons during the course of their tours in the districts. These demonstrations and lectures are confined to the prevalent epidemic diseases in Assam such as malaria, kala azar, cholera and small-pox. A special point is made of demonstratings the disease which is prevalent at the time. A minimum of eight demonstrations a month is insisted upon. Lantern slides are very fully and simply explained and much interest is shown by the public as evidenced by the large attendances at the demonstrations. At the conclusion of each demonstration, illustrated pamphlets and leaflets on the above diseases are distributed to the public. The illiterate have them read and explained. Copies of these leaflets and pamphlets have been distributed to public libraries. Gramaphones and records in Bengali and Assamese have been supplied in order to make the demonstrations and lectures more popular. An interesting and encouraging feature is that the demonstrations and lectures are very largely attended by Indian ladies. They have shown much interest

in Child Welfare and suitable slides and pamphlets on this subject have been provided. Each Kala azar Assistant Surgeon has been given a lantern operator to assist him at the demonstrations. This has resulted in fewer interruptions and greater interest in the lectures. Illustrated pictorial posters on Malaria, Kala azar, Cholera, Small-pox and the "Fly" are exhibited in railway stations, schools, post offices, courts of justice and dispensaries.

PROPAGANDA IN SCHOOLS.

The Director of Public Instruction in Assam is supplied annually with ten thousand copies of simply illustrated pamphlets in Bengali and Assamese on Malaria, Kala azar, Cholera and Small-pox for distribution in schools. He is also provided with illustrated pictorial posters on the above diseases and the Fly. To ensure an interest being taken in the subject of prevention of disease by pupils and teachers in Primary schools, a system of prizes has been introduced varying from Rs. 2 to Rs. 5 for pupils and Rs. 5 to Rs. 9 for teachers. These prizes are given for answers to questions relating to public health asked at the Primary Scholarship Examination. Local Bodies are heartily co-operating in the scheme. Public Health Propaganda, although only recently started in the province, is certain to have far-reaching effects in the future and the time must come when the poorest man will have a knowledge of how to protect himself against the ravages of disease. The entire scheme is under the direction and control of the Director of Public Health in the province.

SECTION VII.

VACCINATION.

(Published separately.)

SECTION VIII.

Sanitary works—Military.
(No remarks.)

SECTION IX.

SANITARY WORKS-CIVIL.

- 29. As in the previous year, there were seventeen Municipal Boards and eight town committees under report.
- 30. The total income of these Municipalities and town committees including the Municipal expenditure on sanita.

 Municipal expenditure on sanita.

 opening balance amounted to Rs. 111,5,830 in 1926, as compared with Rs. 10,91,609 in 1925. Rupees 460,163 or 41.24 per cent. of the total income was spent on sanitary works, original and recurring, as compared with Rs. 4,29,203 and 39.32, respectively, in 1925. Their percentage of expenditure on public health individually was as below:—

(1)	Tinsukia town committee	9			81.36
(2)	Karimganj Municipal Board				76.52
(3)	Gauhati ditto				57:09
(4)	Dibrugarh ditto				56.06
(5)	Palasbari town committee				52.06
(6)	Sylhet Municipal Board	2 [1]			
	Jorhat ditto	***	***	***	44.98
(7)	The state of the s		***	***	48.21
(8)	Shillong ditto	1777	T 1000	***	43.07
(9)	Silehar ditto	***	***		40.63
(10)	Tezpur ditto	***			39.86
(11)	Habiganj ditto				39.64
(12)	Goalpara ditto				39.61
(13)	Gauripur town committee				39.59
(14)	Hailakandi ditto		100	11010111	36.34
(15)	Dhubri Municipal Board				35.91
(16)					33-69
(17)	Nowgong Municipal Board				29-43
	Maulvi Bazar ditto				28.49
(19)				***	26.50
(20)			ALLO SEE MADE	***	26.04
(21)		311			23.84
		***	***	***	
(22)	Barpeta ditto			***	21.88
(23)			***	***	18:21
	Nazira town committee			***	11.94
(25)	Mangaldai town committee		***		11.04

The following statement shows the expenditure for sanitary purposes during the year 1926, as compared with that for the year 1925:—

Heads of expenditure.	Total exper	aditure.	Differe	ence.
nesus of expenditure.	1926.	1925.	Increase.	Decrease.
wiley to built air 1 on the const	3	3	4	5
The series of the organism of	Rs.	Rs.	Rs.	Rs.
1. Conservancy including establishment, road watering, latrines, etc.	2,52,229	2,30,449	21,780	ma wh d
2. Drainage	23,694	20,257	3,437	
3. Water-supply	1,34,191	1,39,239		5,048
4. Disposal of the dead	550	907		857
5. Markets and slaughter bou es	27,885	17,228	10,657	
6. Vaccination	4,036	3,967	69	
7. Other sanitary works	17,608	17,156	452	
Total	4,60,193	4,29,203	30,990	Eggs to de
S. Construction and maintenance of roads	1,37,461	1,15,548	21,918	letel A
Total including roads	5,97,654	5,44,751	52,903	

The substantial increase of Rs. 21,780 under conservancy is satisfactory, as this is the most important item on which much can be usefully spent. The increase of Rs. 10,657 under markets and slaughter houses is due to the construction of Municipal markets in the towns of Karimganj and Hailakandi. The decrease of Rs. 5,048 under water-supply was due to the Shillong Municipal Board having spent a larger sum in 1925 in impounding a spring to augment its water-supply.

31. Surma Valley Division.—The periodical bacteriological analyses of the public water-supplies of Silchar and Sylhet show that a reasonably pure filtered water is being supplied to the public. An attempt is being made to solve the vexed question of removal of night-soil in the Sylhet Municipality by means of a trolly line with receptacles and horse traction. The drainage of Sylhet town also needs attention. The Habiganj Municipal Board requires to give conservancy, drainage and the opening up of congested areas their immediate attention. The Karimganj Municipal Board have constructed a Municipal market and now contemplate taking up the question of the construction of water-works. The Sunamganj Municipal Board would do well to pay more attention to their conservancy, drainage and market. The trenching ground of the Maulvi Bazar Municipality requires widening. The public latrines in the Silchar Municipality are of a very old pattern and require replacement by a more modern and sanitary type.

Assam Valley Division.—The public water-supplies of the Gauhati, Dhubri, Tezpur and Jorhat Municipalities are periodically examined and their results are not generally as good as in Silchar and Sylhet, where filtered water is treated with chlorine.

The surface cleanliness, surface drainage and conservancy arrangements of the Gauhati Municipality are far from satisfactory. The demand for more good water for domestic purposes is a pressing need in this Municipality. Regrettable friction between the Municipality and the Health Officer at Gauhati impaired the efficiency of the public health service. In the Barpeta Municipality there are many badly

congested areas. There is fortunately ample room within Municipal limits for expansion. The sooner this question is taken up by the Municipal Board the better. In the Goalpara Municipality two new masonry wells are being constructed as an additional supply of drinking water. The best solution of the water-supply difficulties of this Municipality would be the construction of water-works. The watersupply of the Mangaldai town needs improvement. In the Nowgong Municipality seven new wells have been constructed. These will be provided with cemented platforms, roofs and suitable lifts as soon as funds are available. This Municipality is also improving its markets. In the Dibrugarh Municipality, no further progress has been made in the matter of a pipe water-supply beyond the experimental boring referred to in the last report. Water-borne diseases such as enteric fevers and dysentery prevail every year in this town and therefore it is of the greatest importance that the town water-supply should be put on a sound basis at no very distant date. The drainage of the town is also very defective. The Doom-Dooma and Tinsukia town committees are gradually improving the sanitation of their respective towns with the limited funds at their disposal. The water-supply of the Jorhat Municipality is unreliable in regard to quantity and quality. The water-works is admittedly too small now to serve the needs of the whole town. The machinery is worn out and defective and cannot possibly function much longer. The need for a sound and ample water-supply in the Municipality is most pressing.

Hill Districts.—The Iwater-supply of the Shillong Municipality was well maintained during the year. The water-supplies of Kohima, Mokokchong and Dimapur towns in the Naga Hills district, Tura in the Garo Hills and Aijal and Lungleh in the Lushai Hills and Haflong in the North Cachar Hills were satisfactorily maintained. The sanitary requirements of the British Reserve at Imphal were discussed locally with the President of the Manipur State and reported on to Government. Certain schemes for sanitary improvements in the Sadiya and Balipara Frontier Tracts were also considered.

A total expenditure of Rs. 23,429 was incurred by the Public Works Department on the maintenance of water-supplies, drainage and town improvement in 1926 as compared with Rs. 23,945 in 1925.

SECTION X.

GENERAL REMARKS.

32. Local Boards incurred an expenditure of Rs. 2,60,938 mainly on the improvement of water-supplies as compared with Rs. 70,244 in 1925. Government made a grant of Rs. 3,00,000 during the year to Local Boards for the purpose of improving and augmenting rural water-supplies. The expenditure incurred on original works (new tanks and wells) by individual Local Boards was as follows:—

					Re.
Nowgong Local B	Board	 			37,206
Dhubri		 			25,089
Gauhati		 			16,765
Goalpara		 			12,219
Mangaldai		 			10,990
Tezpur		 	*** - 12	***	10,697
Golaghat		 			8,272
Sibsagar		 	1619		8,162
North Lakhimpur		 			7,453
Silchar		 	24		6,193
Dibrugarh		 			5,897
Barpeta		 			5,836
Jorhat		 	TO SERVICE OF THE PARTY OF THE		4,746
Hailakandi		 			2,413
North Sylhet					
South Sylhet	malined.			1114	32,674
Karimganj > co	mbined	 		***	02,014
Sunamganj					
Cunamgan]					

Other sanitary measures carried out in rural areas were vaccination and reva ccination of people in order to protect them against small-pox. With the introduction of the Epidemic Units sanctioned in 1925, cholera inoculations are being exten sively undertaken and sources of water-supply in infected areas are being regularly disinfected. Magic lantern demonstrations are being given regularly in villages and schools on the common diseases prevalent in Assam. Knowledge on personal hygiene is being gradually diffused in villages by the distribution of pamphlets and by instruction in elementary hygiene in village Primary schools. Illustrated posters on the common communicable diseases of Assam are being exhibited in public places.

Village authorities are also improving sanitation in areas under their charge by

providing better water-supplies, constructing village paths, etc.

33. A total of 4,360 parcels of quinine treatments was sold during the year 1926 as compared with 3,524 parcels in the preceding year. The following statement shows the sale by districts:—

				Treatment parce	ls sold in-	Differe	ence.
	District	ş.		1926.	1925.	Increase.	Decrease.
	1			2	3	4	- 5
Cachar .				247	269		22
Sylhet				717	1,037	roters to sin	320
Goalpara				691	455	236	did
Kamrup .	17.0			569	446	123	
Darrang .				419	254	165	and
Nowgong				283	238	45	estid.
Sibsagar				299	135	164	
Lakhimpur				147	105	42	ledgel rehit
Khasi and Jaint	ia Hills			197	170	27	
Naga Hills				84	69	15	
Lushai Hills .				643	275	368	to the limit
Garo Hills				26	19	7	
Sadiya Frontier	Tract			14	2	12	
Manipur State				24	50	****	26
LOUISIES IN SAID I		Total	A	4,360	3,524	1,204	368

In order to reduce the ravages of malarial fevers and to alleviate the great sufferings of the people from these fevers, the retail sale price of a treatment of twenty tablets of quinine sulphate, which is sufficient to cure an ordinary attack of malarial fever, was reduced by 50 per cent., i.e., from 9 annas to 4 annas and 6 pies a treatment. Agencies for the sale of the drug were extended to selected school masters, gaonburas, mauzadars, patwaris, etc. A notification regarding the reduction in the price of the drug was published in local newspapers and in the Assam Gazette and it was also widely circulated in villages through the vaccination staff. The drug is now being sold below cost price for the benefit of the public, especially cultivators and poor people.

34. The only fair of any importance which is held annually in the province was the Sidheswari fair in the Cachar district at which some 8,000 people assembled. Every sanitary precaution was

taken and there was no outbreak of any epidemic disease.

Railway coolie camps.

Construction in the province of Assam, viz., Sibsagar-Khowang and Karimganj-Longai Valley. The total number of coolies employed on the whole length of the former line was 3,492. Trench latrines were generally provided and 24 sweepers were engaged. Healthy elevated sites were selected for location of camps. The water-supply was from adjacent Local Board tanks, water from tube wells or river was passed through jewell filters. Segregation camps were provided. No epidemic of any disease was reported and only a few sporadic cases of cholera, small-pox, measles and dysentery occurred. In the latter construction 2,358 coolies were employed. Some of the camps were insanitary as neither sweepers nor latrines were provided. The Chief Medical Officer of the Railway is taking steps to rectify these defects. The water-supply was generally from local village tanks. No epidemic was reported from this line. In both lines thatched huts were provided for the coolies.

No new construction was undertaken by the Eastern Bengal Railway in Assam during the year.

36. The appended table indicates the work undertaken at the Public Health

Laboratory in 1926 as compared with that of the previous

year:—

			- 37	1926.	1925.
1				2	3
Chemical analysis of water	***			105	93
Ditto of ghee					16
Ditto of milk		week. 22-1		150	123
Ditto of mustard oil	Wie			159	38
Ditto of other food stuffs]	L L DANS	11
Miscellaneous chemical analysis				3	3
Bacteriological examination of water				319	234
Miscellaneous bacteriological analysis				111	12
Bacteriological analysis of vaccine lymph				281	207
Antisepties				8	43
Identification of mosquitoes	1		-	83	San Hills
19	0.2	Total		1,069	779

Of the 54 samples of mustard oil analysed during the year none showed the presence of hydrocyanic acid. As in previous years, Shillong pipe water was regularly examined and was found to have maintained its high standard of purity throughout the year except when some repairs were done to the pipe lines. Sylhet, Silchar, Jorhat, Tezpur and Dhubri pipe waters were each examined eight times during the year. Sylhet water was found to be uniformly good. Silchar water was found to be unsatisfactory only once in May, Jorhat water was unsatisfactory in January, February and June, Tezpur water was unsatisfactory in January, July, August and November and Dhubri water was uniformly unsatisfactory in all the eight examinations. Gauhati water was examined eleven times and was found unsatisfactory on three occasions in January, February and June. Umkhrah river water in Shillong was also regularly examined for determination of the organisms that are found prevalent in the open water at this altitude.

Assistant Surgeon-Ram Taran Sen, D. P. H., held charge of the Laboratory up to 31st December 1923. He was then permanently transferred to the Medical Department. He discharged his duties in a most satisfactory manner.

Immigration.

37. The number of immigrants to Assam by the different routes during the year was as follows:—

Vid Chandpur by rail to Assam Valley			5,418
Via Chandpur by rail to Cachar and Sylhet	***		4,701
Vid Naihati and Amingaon by rail	***		42,737
Total		700	52,856

The number of immigrants for the year exceeded that for the year 1925 by 15,663, showing an improvement in the recruitment of labourers for tea gardens. As in previous years all immigrants were inoculated with cholera vaccine and vaccinated at recruiting depôts as a preventive measure against outbreaks of cholera and small-pox en route.

There were 28 admissions to hospital at Goalundo, of whom two died of dysentery. At Naihati there were 8 admissions, of whom one died of diarrhoea during the year as compared with 4 and 5, respectively, in 1925. No cases of cholera were admitted at either hospital.

Twenty-nine immigrants were repatriated from Goalundo during the year.

As usual Mr. Crunden, I.M.D., the Travelling Inspector of Emigrants, inspected sanitary and feeding arrangements on steamers, railways, debarkation depôts and hospital as frequently as was found necessary and reported them to be satisfactory. He discharged his duties in a most efficient and satisfactory manner.

38. I was in charge of the Department throughout the year. In the month of February kala azar operations and vaccination work in the Personal proceedings. Personal proceedings. Kamrup and Nowgong districts were inspected. In April, Dibrugarh was visited in connection with the Medical School examination. May and June were spent at headquarters in the preparation of administration reports and in administrative work. In July, Gauhati, Dhubri, Tezpur and Dibrugarh Municipalities and Sadiya town were inspected. In August, Sylhet and Silchar Municipalities were inspected and also a site of land at Haflong, proposed to be handed over to the Prefect Apostolic of Assam for the establishment of a school for European and Anglo-Indian boys. In September and October Imphal and Kohima were visited, the former in connection with a scheme for the sanitary improvement of the British Reserve and the latter in connection with the anti-malarial measures being undertaken in that town. In October Medical School examination in Hygiene and vaccination was attended to at Dibrugarh. In November the kala azar hospital at I'ura in the Garo Hills was inspected and the general policy of the treatment of kala azar patients in Garo Hills was discussed with the Deputy Commissioner and Civil Surgeon. In December kala azar and vaccination work in the districts of Kamrup and Nowgong and also the Nowgong Municipality were inspected.

The Assistant Director of Public Health during the year inspected kalı azar operations and vaccination in the Sylhet and Cachar districts and also the smaller Municipalities and town committees in the Surma Valley and Assam Valley Divisions. In December he inspected the sanitary arrangements in the Congress camp at Pandu.

I have to express my thanks to my entire office establishment for the satisfactory manner in which they have carried out the duties entrusted to them, but especially to my Personal Assistant, Babu Chandra Nath Halder, and my Head clerk, Babu Iswar Chandra Das, who proved themselves reliable, diligent and hard working.

SECTION XI.

ANNUAL REPORT OF THE PUBLIC HEALTH BOARD, ASSAM, FOR THE YEAR 1926.

39. No meeting of the Board was held during the year. The Health Board (Epidemics) functioned as in previous years. The rules for the control of epidemics were revised and submitted by the Board to Government during the year.

T. D. MURISON, Major, I.M.S.,

G. HUTCHESON, Colonel, I.M.S.,

Secretary, Public Health Board, Assam.

President, Public Health Board, Assam.

STATEMENTS.

26

IMPERIAL STATEMENT No. I .- Statement showing the birth:

io.	District		Population acc	cording to the C	ensus of 1921.	Number	tered.	
10.	District	•	Male.	Female,	Total,	Male.	Pemale,	Total.
1	2		3	4_	5	6	7	8
	SURMA VA	LLEY.						
1	Cachar	***	 261,594	238,890	500,484	9,233	8,704	17,93
2	Sylhet		 1,308,734	1,232,607	2,541,341	41,371	38,111	79,48
	Tota		 1,570,328	1,471,497	3,041,825	50,604	46,815	97,41
	ASSAM VA	LLEY.						
3	Goalpara		 406,628	355,895	762,523	13,717	13,151	26,86
4	Kamrup		 397,267	365,404	762,671	12,124	11,496	23,62
5	Darrang		 252,849	224,593	477,442	7,352	7,143	14,49
6	Nowgong	***	 208,731	189,276	398,007	5,663	5,005	10,66
7	Sibsagar		 433,913	389,284	823,197	11,924	11,146	23,07
8	Lakhimpur	•••	 312,843	273,734	586,577	7,583	7,510	15,09
75	Total		 2,012,231	1,798,186	3,810,417	58,363	55,451	113,81
	Total for the	Province	 3,582,559	3,269,683	6,852,242	108,967	102,266	211,23

IMPERIAL STATEMENT No. II .- Statement showing the births and deaths

			square	Populati	on (Census	of 1921).	Birth	18-	Number o	of deaths re	gistered.
No.	Districts.	Area, in square miles.	Average population per sq. mile.	Male.	Female.	Total.	Total number.	Births per 1,000 of popu- lation.	Male.	Female.	Total.
1	2	3	4	5	6	7	8	9	10	11	12
-	SURMA VALLEY.										
1	Cachar	1,859	269	261,594	238,890	500,484	17,937	35-84	5,108	4,914	10,022
2	Sylhet	5,388	472	1,308,734	1,232,607	2,541,341	79,483	31-27	30,372	27,549	57,921
	Total	7,247	419	1,570,328	1,471,497	3,041,825	97,419	32-02	35,480	32,463	67,943
	ASSAM VALLEY.			1							
3	Goalpara	3,954	193	406,628	355,895	762,523	26,868	35.25	11,958	9,677	21,635
4	Kamrup	3,863	197	397,267	365,494	762,671	23,620	30-97	10,261	9,516	19,777
5	Darrang	2,916	164	252,849	224,593	477,442	14,495	30:36	6,576	6,250	13,826
6	Nowgong	3,699	108	208,731	189,276	398,007	10,668	26.80	4,234	3,668	7,902
7	Sibsagar	5,097	162	433,913	389,284	823,197	23,070	28.02	8,272	7,573	15,845
8	Lakhimpur	3,910	143	312,843	273,734	586,577	15,093	25.73	6,387	5,472	11,850
	Total	23,439	162	2,012,231	1,798,186	3,810,417	113,814	29.87	47,688	42,156	89,844
	Total for the Province	30,686	223	3,582,559	3,269,683	6,852,242	211,233	39.82	83,168	74,619	157,787

registered in the districts of Assam during the year 1926.

Ratio of bir	the per 1,000 of 1	population.	Number of males born to every 100	Excess of births over deaths per 1,000 of popu-	Excess of deaths over births per	Mean ratio of bir	ths per 1,000 during years.	g provious five
Male.	Female.	Total,	females born.	lation.	1,000 of popu- lation,	Male.	Female.	Total.
9	10	11	12	13	14	15	16	17
18:45	17:39	35.84	107	15.81		16.50	15.72	32-2
16-28	14.99	31-27	109	8.48		15-61	14:48	30-1
16-63	15:39	32.02	108	9.69		15:76	14:69	30-4
17-99	17:24	35.25	104	6.86		17:75	16.63	34:3
15.89	15.07	30-97	105	5.04		14.68	13-61	28-3
15.39	14:96	30.36	103	3-49		14.80	14.08	28.8
14.23	12:57	26-80	113	6-95		13.05	11-99	25.0
14:48	13.54	28.02	107	8.77		13.88	12-96	26.8
24-24	27:44	25.73	101	5.21		13-24	12.66	25.9
15.32	14:55	29.87	105	6.29		14-75	13.82	28.5
15.90	14.92	30.82	106	7.80		15.20	14-21	29:4

registered in the districts of Assam during the year 1926.

os to			I	eaths per	1,000	of popu	alation	from-	10			Mean ratio during the	of deaths previous fi	per 1,000 ve years.
femal	100			12-13	hous.	i i			1	All cause	8-			
Number of deaths of males every 100 deaths of females.	Cholera.	Small-pox.	Plague.	Fover.	Dysentery and Diarrhosa.	Respiratory diseases.	Injuries.	All other causes.	Male.	Female.	Total.	Male.	Female.	Total.
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
												1 . 1		1000
104	.27	-01	***	9-75	2.16	1.23	-31	5.97	19.53	20:57	20-02	26.46	27.56	26.98
110	-74	-05		12.76	1-36	.28	-30	6.94	23-20	22:35	22.79	27:73	25.60	26-70
109	-66	-07		12:27	1:49	-74	-30	6:78	22:59	22.06	22:33	27-52	25-92	27:08
124	2:49	*50	***	23'86	-32	.15	-33	*69	29-40	27-19	28:37	31.75	28-96	30:45
108	6-65	1.19		13.88	.84	-31	-26	2.79	25.83	26'04	25:93	25'36	24:13	24:77
105	1.31	-42	***	16 87	2-59	*88	-24	4.23	26.00	27-83	26.86	26.01	27.70	26 90
115	1.14	-01		15-63	-79	-37	-23	2-27	20:28	19:38	19.85	23:84	22-81	23:33
109	-11	3.57		9-21	1.59	1.00	•25	3.42	19-06	19:45	19.25	18.67	19-52	19 07
117	.16	-29		10.16	2-53	2.10	.23	4.75	20:43	19799	20.23	20.85	21.48	21:12
113	2:16	1.20		14.79	1:37	*80	-26	2:97	23:60	23:44	23-57	24-42	23:99	24-25
111	1:49	-70		13.67	1.43	-77	-28	4:66	23-21	22.82	23 02	25-79	24-86	25:3

28

IMPERIAL STATEMENT No. III .- Deaths registered in the

No.	1	1	Districts.		January.	February.	March.	April,	May.
1	- Shirt		2		3	4	. 8	6	7
	su	RMA V	ALLEY.				120	9	
1	Cachar				 793	667	704	784	966
2	Sylhet				 5,925	4,636	3,731	4,150	5,09
	The second		Total	***	 6,718	5,303	4,435	4,934	6,063
	ASSAM	VALLI	EY.						
. 3	Goalpara				 1,331	1,405	. 1,409	1,755	2,49
4	Kamrup				 1,077	885	1,010	1,763	3,39
5	Darrang				 780	736	756	902	1,32
6	Nowgong				 - 572	531	498	654	86
7	Sibsagar				 1,051	1,164	1,131	1,132	1,25
8	Lakhimpur				 759	657	690	706	92
			Total		 5,570	5,378	5,494	6,912	10,25
	Total for the Pro	vince	***		 12,288	10,681	9,929	11,846	16,31
	Ratio per 1,000				 1.79	11.56	1.44	1:72	2:5

IMPERIAL STATEMENT No. IV .- Deaths registered according to

					τ	Inder 1 y	ear.							1 and u	nder 5.
No.	Districts.	Not ex	ceeding 1	month-		1 month s seding 6 m			months i		Total of male columns	Total of female	Total.		Femal
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	3, 6 and 9.	4, 7 and 10.	10tal.	Male.	Femal
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	SURMA VALLEY.														
1	Cachar	788	550	1,338	436	392	828	239	172	411	1,463	1,114	2,577	717	70
2	Sylhet	5,425	4,357	9,782	2,012	1,551	3,563	866	637	1,503	8,303	6,545	14,848	3,982	3,48
	Total	6,213	4,907	11,120	2,448	1,943	4,391	1,105	809	1,914	9,766	7,659	17,425	4,699	4,18
	ASSAM VALLEY.													-	
3	Goalpara	1,839	1,412	3,251	1,132	891	2,023	406	305	711	3,377	2,608	5,985	1,689	1,59
4	Kamrup	1,089	1,005	2,094	716	655	1,371	425	371	796	2,230	2,031	4,261	1,704	1,80
5	Darrang	531	487	1,018	684	678	1,363	379	356	735	1,594	1,521	3,115	1,001	1,00
6	Nowgong	464	394	858	375	344	719	168	137	305	1,007	875	1,882	668	50
7	Sibsagar	714	669	1,383	641	540	1,181	436	404	840	1,791	1,613	3,404	1,476	1,3
8	Lakhimpur	523	404	926	443	405	847	300	287	587	1,264	1,096	2,360	1,097	1,00
	Total	5,159	4,371	9,530	3,990	3,513	7,503	2,114	1,860	3,974	11,263	9,744	21,007	7,635	7,35
1	Total for the Pro-	11,372	9,278	20,650	6,438	5,456	11,894	3,219	2,669	5,888	21,029	17,403	38,432	12,334	11,5
-	Population (according to the census of 1921).										101,343	99,389	200,731	359,087	376,5
1	Ratioper 1,000				***						207:50	175-10	191-46	34:35	30"

districts of Assam during each month of the year 1926.

June.	July.	August.	September,	October.	November.	December.	Total.
8	9	10	11	13	13	14	15
913	830	763	765	705	974	1,158	10,925
5,005	4,400	3,952	3,774	4,812	5,623	6,817	57,921
5,918	5,230	4,715	4,539	5,517	6,597	7,975	67,94
909			9 9 19 9				
2,289	1,896	1,827	1,990	1,572	1,826	1,839	21,63
3,156	2,119	1,653	1,267	1,162	1,211	1,082	19,77
1,563	1,352	849	1,386	963	1,140	1,075	12,82
830	. 683	688	746	696	548	596	7,90
1,538	1,520	1,671	1,363	1,551	1,057	1,414	15,84
1,078	1,021	1,241	1,309	1,240	1,212	1,021	11,85
10,454	8,591	7,929	8,061	7,184	6,994	7,027	89,84
16,372	13,821	12,644	12,600	12,701	13,591	15,002	157,78
2.39	2.01	1.84	1.83	1.85	1.98	2.19	23.0

age in the districts of Assam during the year 1926.

and u	nder 10.	10 and	ander 15.	15 and	under 20.	20 and	under 30.	30 and	under 40.	40 and	under 50.	50 and u	inder 60.	60 and u	pwards.
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	33
266	208	161	160	149	291	383	725	448	518	386	297	323	277	812	620
1,827	1,567	1,092	800	1,040	1,621	2,421	4,324	2,898	2,734	2,554	1,657	2,200	1,576	4,055	3,344
2,093	1,775	1,253	960	1,189	1,912	2,804	5,049	3,346	3,252	2,940	1,954	2,523	1,853	4,867	3,864
	1, 14													10 21	
923	718	556	378	446	613	949	1,207	1,182	943	941	541	728	468	1,167	673
1,142	990	576	397	433	512	840	1,166	959	832	866	621	758	475	753	640
476	428	298	244	229	321	519	768	710	709	680	448	500	411	539	397
357	261	224	161	206	204	326	466	383	368	371	258	300	247	392	200
577	543	337	323	321	452	657	1,019	830	868	831	504	663	420	789	451
463	381	260	208	179	252	549	715	731	644	701	404	568	308	575	396
3,908	3,321	2,251	1,711	1,814	2,354	3,840	5,341	4,795	4,364	4,390	2,776	3,547	2,329	4,215	2,826
6,031	5,096	3,504	2,761	3,003	4,266	6,614	10,390	8,141	7,616	7,330	4,730	6,070	4,182	9,082	6,690
80,966	568,880	438,305	342, 744	278,664	292,075	577,151	613,934	556,071	448,620	359,844	259,435	198,849	149,979	137,290	118,12
10:38	8:77	8.08	7-79	10.77	14:60	11:51	16.92	14'64	16:98	20:37	18-23	30-52	27:88	66.12	56.6

IMPERIAL STATEMENT No. V .- Deaths registered according

			1							1	opulation :	according
				110	Christians.	1		Hindus.	1	M	hammadan	
No.	Di	stricts.		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1		2		3	4	5	6	7	8	9	10	11
	SURMA	VALLE	ey.			-						
1	Cachar	***	***	848	762	1,610	165,782	152,463	319,245	89,513	81,109	170,622
2	Sylhet	***		970	786	1,756	565,443	534,302	1,009,745	738,916	694,474	1,433,390
	-	Total		1,818	1,548	3,366	732,225	686,765	1,418,990	828,429	775,583	1,604,012
	ASSAM	VALL	EY.									
3	Goalpara			5,434	4,878	10,312	198,904	170,488	369,392	167,765	148,725	316,490
4	Kamrup	***		1,926	1,735	3,661	283,534	261,685	544,639	59,986	51,560	111,546
5	Darrang			2,816	2,502	5,318	179,272	158,457	337,729	20,137	16,398	36,535
6	Nowgong			1,465	1,460	2,925	116,864	105,235	222,099	38,655	31,927	70,582
7	Sibsagar			4,557	3,823	8,380	365,885	329,131	695,016	19,370	15,624	34,994
8	Lakhimpur	***		4,216	3,515	7,731	244,853	214,283	459,135	9,485	5,961	15,446
		Total		20,414	17,913	38,327	1,389,331	1,238,679	2,628,010	315,398	270,195	585,593
	Total for the	Provin	00	22,232	19,461	41,693	2,121,556	1,925,444	4,047,000	1,143,827	1,045,778	2,189,605

IMPERIAL STATEMENT No. V .- Deaths registered according

	and I would be						Number of	deaths reg	istered—c	oneld.		10/4
				В	uddhists.		Ot	her classes			Total.	
0.	Dist	ricts.		Male.	Female.	Total.	Male.	Female.	Totel.	Male.	Female.	Total.
	The second second			30	31	32	33	34	35	38	37	38
	SURMA	VALLE	ey.									
1	Cachar			***			326	270	596	5,108	4,914	10,025
2	Sylhet				-		235	211	446	30,372	27,549	57,921
	Total	***					561	481	1,042	35,480	32,463	67,943
	ASSAM	VALL	EY.									
3	Goalpara			2	10	12	2,406	2,010	4,416	11,958	9,677	21,633
4	Kamrup				***	***	1,841	1,811	3,659	10,261	9,516	19,777
5	Darrang			10	4	14	2,189	1,971	4,169	6,576	6,950	12,8%
6	Nowgong	***	***	***			1,310	1,206	2,516	4,2:4	3,668	7,909
7	Sibsagar	***		70	58	128	1,081	886	1,967	8,272	7,573	15,845
8	Lakhimpur	***	***	50	31	81	1,009	942	1,951	6,387	5,472	11,8%
194	To	tal		132	103	235	9,836	8,926	18,662	47,688	42,156	89,844
1	Total fo	n the T	Province	132	103	235	10,397	9,307	19,704	83,168	74,619	157,787

to the	Censu	s of 195	21.									Numb	er of dea	ths regis	tered.		
Bu	ddhist	8.	0	ther class	08.		Total.		Ch	ristian	8.		Hindus.		Mu	hammada	ins.
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
33	2 9	35 43	4,418 3,371	4,554 3,036	8,972 6,407	261,594 1,308,734		500,484 2,541,341	6 41	8 26	14 67	2,897 12,477	2,881 11,495	5,778 23,972	1,879 17,619	1,755 15,817	3,634 33,436
67	11	78	7,789	7,590	15,379	1,570,328	1,471,497	3,041,825	47	34	81	15,374	14,376	29,750	19,498	17,572	37,070
547 286	375 113	922	35,978 51,515	31,429	65,407 102,426	406,628	355,895 365,404	762,523 762,671	123 24	94	217	5,201 7,174	4,216 6,719	9,417	4,226 1,222	3,347	7,573
466 24	244	710	50,158 51,723	46,993 50,648	97,150	252,849 208,731	224,593 189,276	477,442 398,007	113 22	101	214	3,855	3,746 1,935	7,601 4,197	409 640	428 510	837
1,389 2,516	1,055 2,110	2,444 4,626	42,713 51,774	39,651 47,865	82,363 99,639	433,913 312,843	389,284 273,734	823,197 586,577	53 35	49 88	102 73	6,760 5,090	6,306 4,323	13,066 9,413	308 203	274 138	582 341
5,228	3,903	9,131	281,860	267,496	549,356	2,012,231	1,718,186	3,810,417	370	323	693	30,342	27,245	57,587	7,008	5,639	12,667
5,295	3,914	9,209	289,649	275,086	564,735	3,582,559	3,269,683	6,859,242	417	357	774	45,716	41,621	87,837	26,506	23,231	49,737

to class in the districts of Assam during the year 1926-concl.

					Ratio o	f deaths	per 1,00	0 of popt	lation.					4	1100		
CI	hristians.			Hindus.		Mul	hammad	ms.	Bu	ddhists		Oth	er clas	aca.		Total.	
Male.	Female.	Total.	Male,	Female.	Total.	Malo.	Female.	Total.	Male.	Female.	Total.	Male.	Femalo.	Total.	Male.	Female.	Total.
39	40	41	42	43	44	45	46	47	48	49	50	51	53	53	54	55	86
7·07 42·27	10·49 \$3·08	8-69 38-15	17:37 22:06	18·89 21·51	18:09 21:79	20·99 23·84	21·64 22·77	21·30 23·32				73-79 69-71	59-20 69-50	69·61	19·53 23·20	20°57 22°33	20:00
25-85	21:96	24.06	20:90	20-93	20:96	23:53	22:65	23:11				72-02	68-37	67:75	22:59	22.06	22:33
22 63 12 46	19·27 13·54	21.04	26:14 25:00	24·72 25·73	25·49 25·51	25:19 20:37	22-50 18-66	23:93 19:58	8-66	26.66	13.01	70·81 35·72	63-95 33-47	67·52 35·66	29·40 25·83	27·19 26·04	28:3
40·12 15·02	4036 1164	40-24 13-33	21°50 19°35	23·64 18·38	22·51 18·90	20:31 16:56	26·10 15·97 17·54	16:29 16:63	21.46	16:39	19-72	43-64 25-33 25-31	41:94 23:81 22:34	42·83 24·58 22·88	26°00 20°28 19°06	27.83 19.38 19.45	26·8 19·8 19·2
11·63 8·30	12-82 10-81	12·17 9·44	18·48 20·79	19·16 20·17	18·80 20·50	15:90 21:40	23:15	22-08	19:87	14:69	17-50	19-49	19:68	19-58	20:43		20-2
18-12	18:03	18-08	21.84	21-99	21:91	22-22	20-94	21:63	25:24	26:39	25.73	34-89	32-99	33-97	23:09	23:44	23.5
18-75	18:34	18.56	21.35	21.61	21.58	23:17	22-21	22-71	24:93	26:31	25-52	35-89	33-83	34:89	23:21	22-82	23.03

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IMPERIAL STATEMENT No. VI .- Deaths registered from different

1	2	100	3			4	- 1	5	6	7	8	9	10
1			sman		Births.	1			1			-	200
No.	Districts and tow	ns-	Population according to Census of 1921.						100			Dysentery and diarrhona.	Respiratory diseases.
-			Population of 1921.	Male.	Female.	Total.	Birth-rate.	Cholera.	Small-pox.	Plague.	Fover.	Dysentery	Respirator
10.5	DISTRICTS EXCI									18		7 1	10
	SURMA VALLEY			0.00=		17.000	0.0.00	139	8		4,847	1,047	753
1	Cachar	***	488,053	9,097	8,571	17,668	36-20	1,861	227	***	32,224	3,332	1,371
2	Sylhet	***	2,505,744	40,878	37,618	78,496	31.32	1,801	221	***	00,009	0,000	2,012
	Total		2,993,796	49,975	46,189	96,164	32-12	2,000	235		37,071	4,379	2,124
	Assam Valle	Υ.					\$ 140°						
3	Goalpara		745,293	13,422	12,866	26,288	35-27	1,900	383	***	18,074	205	88
4	Kamrup		734,461	11,513	10,897	22,410	30-51	5,024	906	***	10,275	554	160
5	Darrang		469,078	7,240	7,018 .	14,258	30-39	617	200		7,994	1,210	369
6	Nowgong		391,122	5,538	4,905	10,443	26.70	453	2	***	5,931	293	121
7	Sibsagar	***	804,955	11,641	10,917	22,558	28-02	90	2,926		7,428	1,278	868
8	Lakhimpur	***	564,362	7,327	7,280	14,607	25-88	85	160		5,837	1,385	1,162
	Total		3,709,271	56,681	53,883	110,564	29-80	8,169	4,586		55,539	4,925	2,768
	Total of districts of		6,703,067	106,656	100,072	206,728	30-84	10,169	4,821		92,610	9,304	4,892
	TOWNS.											1	
	SURMA VALI	EY.			-							-	
1	Silchar		10,204	116	111	227	22-24		***	***	27	31	13
2	Hailakandi		2,228	20	22	43	18:85		***		9	6 2	1
3	Sylhet	***	16,912	248	266	514	30-39	12	***		89	63	73
4	Karimganj		4,552	64	50	114	25.04	9	***	***	18	10	9
5	Maulyi Bazar	***	3,334	27	23	50	14:99			***	18	5	
6	Habiganj		5,918	85	88	173	29-23	3	***		49	50	21
7	Sunamganj	***	4,881	69	66	135	27.66	8			41	8	3
	Total		48,029	629	626	1,255	26.13	33			251	169	12

causes in the districts and towns of the province of Assam during the year 1926.

		1	1			12	13	-					14					15
	In	juries,	9								Ratio o	of death	us per 1,0	00 of po	pulation			1
Saic	ide.	1.	asls.	1								hoea.				From a	ll causes.	
Male.	Female.	Wounds or accidents.	Snakes and wild animals.	Rabies.	Total.	All other causes.	Total.	Cholera.	Small-pox.	Plague.	Fevor.	Dysentery and diarrhosa	Rospiratory diseases.	Injuries.	All other causes.	For the year.	Mean of previous five years.	No
The same													1				1	
		99	30	1	145	2,939	9,878	-28	-02		9-92	2:15	1.24	-29	6:04	20-24	27-27	1
18	7 9	674	51	4	756	17,321	57,092	-74	-09		12-86	1.33	*54	130	6-91	22-78	26.74	2
								-67	-07		10.00	1.10		-00	6-77	22:37	00,00	
26	16	773	81	5	901	20,260	66,970	*67	-97	200	12:38	1.46	-71	-30	6.11	22'37	26.83	
6	6	151	80	5	248	358	21,236	2-55	-51		24-25	-27	-11	-33	-48	28-52	30-54	3
30	24	79	43	12	188	1,849	18,956	6.81	1.23		13-39	-75	*22	-26	2-52	25-81	24:61	4
8	3	40	49	8	108	2,079	12,577	1:31	-42		17:03	2.58	-78	-23	4.43	26-81	26.83	5
4	3	44	26	8	85	852	7,737	1.16	.01		15.16	-75	-30	-23	2.18	19-78	23:28	G
34	28	107	24	12	205	2,718	15,513	-11	8.63		9.23	1.29	1.08	-25	3.38	19-27	19:02	7
20	5	88	10	1	124	2,644	11,406	.15	'30		10:34	2.45	2.06	-22	4.68	20-21	21.13	8
102	69	509	232	46	958	10,500	87,445	2:20	1.23		14.97	1.32	-74	-25	2.83	23-57	24:20	
128	85	1,282	313	51	1,859	30,760	154,415	1.21	1-71	***	13.81	1:38	-72	-27	4.58	23-03	25:38	
											III.	DI.						
1		6	1		8	40	119			***	2.65	3.04	1.27	-78	3-92	£11.66	15-09	1
	***		***	2	2	11	25	***		***	4-04	-90	-45	-90	4.91	11:23	1795	-3
		2	***	2	4	137	378	-71		***	5-26	3.72	4:31	123	8.10	22-35	23-29	3
***	***	5	200		5	43	94	1.38		***	3-95	2.19	1.98	1:09	9-45	20.65	19-99	4
	***	***	***			3	26				5-39	1.49			*89	7:79	13:79	5
***	***	13			13	66	203	-51		***	8-28	8.45	3-55	2.19	11.15	34-13	34-47	6
	***	1			1	68	129	1.64		***	8-39	1.64	-61	-20	13-93	26-43	24.79	7
		27	1	4	33	368	979	-66			5-22	3.51	2.49	-68	7:66	20-26	21.86	

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IMPERIAL STATEMENT No. VI .- Deaths registered from different causes

No-	Districts	and towns.		Population according to Consus of 1921.		Births.							diarrhon.	castos.
No-	Districts	and towns.		nalation according to Co									diarrhos.	cases.
	-		1	Po	Male.	Female.	Total.	Birth-rate.	Cholera.	Small-por.	Plague.	Fever.	Dysentery and diarrhos.	Respiratory diseases.
1	TOWNS-	-concld.										23	26	17
8 D	Dhubri			6,707	112	119	231	34-44	5	***	***	60	9	7
9 G	Goalpara			6,212	91	96	187	30.10	1	""	***		1704	4
10 G	Sauripur	***		4,311	92	70	162	37:58	***	***	***	38	6	383
11 G	Sauhati	***	***	16,480	213	230	433	26.27	43	2	***	197	65	50
12 B	Barpeta			11,730	398	379	777	66:24	9	1	***	116	27	26
13 T	l'ezpur			7,341	96	111	207	28-19	7	2	***	51	28	58
14 2	Mangaldai			1,023	16	14	30	29:32	. 5		***	12	.3	
15 N	Nowgong			6,885	125	100	225	32-68	1			52	20	29
16 J	Jorhat	***		6,626	102	75	177	20.71		6		26	15	20
17 8	Sibsagar			5,829	90	55	145	27:21		2		55	11	1
- 100	Golaghat			3,655	26	40	66	18-06		2		40	4	11
100	Nazira			2,632	65	5.9	124	47-11		2	***	33	2	
	Dibrugarh			16,067	194	171	365	22:80	***			54	68	59
500 100	North Lakhim		411	1,966	35	28	63	32:04	2	2		30	24	5
3300	Doom Dooma			1,162	. 11	12	23	19:79	1			19	1	5
700	Tinsukia			3,080	16	19	35	11.36	3		***	22	5	1
20 1	Total			101,146	1,682	1,568	3,250	32-13	74	19		828	314	288
		or towns		149,175	2,311	2,194	4,505	30 20	196	19	W	1,079	483	408
1	Total for t			6,852,242	108,967	102,266	211,233	30-82	10,275	4,840		93,689	9,787	5,300

Supplementary (optional) Statement

0		ME	1	1	2		- 1	3		1	5		6	
2	Towns.	3.00	Mal	aria.	Enterio	fever.	Mes	slos.	Relapsia	g fever.	Kala c	ate,	Other	levezs.
			Deaths.	Batio.	Deaths.	Batio.	Deaths.	Ratio.	Deaths.	Ratio-	Deaths-	Ratio.	Deaths.	Batio.
Silchar			15	1.47							1	.09	11	1.07
Sylhet	***		23	1.36	8	.47	2	.12			4	-23	52	3.07
Habiganj		***	10	1.69	7	1.18					31	5.24	1	-17
Karimganj			12	2.63		***					6	1.31		
Gauhati	***		45	2.73	2	.12					39	2.36	111	6-73
Barpeta			89	7.59	3	.25	1	.08			22	1.87	1	-08
Dhubri			3	*44	3	-44	1	15			16	2.38		
Goalpara			13	2.09			3	.48		***	1	.16	43	6:92
Tezpur			11	1.50							22	3.00	18	2.45
Nowgong			2	-29							27	3-92	23	3.34
Jorhat		***	3	•45			1	.15	1	.15	2	.30	19	2.86
Dibrugarh			5	.31	1	-06					1	-06	47	2.93
Shillong			4	-23							5	-29	63	3.66

in the districts and towns of the province of Assam during the year 1926-concluded.

-			11			12	13					1	4					15
		Injuri	os.								Ratio o	of deaths	per 1,000	of popu	lation.			
Suic	ide.		onle.	1								Sons.	.			From all	causes.	
Mal e.	Female.	Wounds or accidents.	Snakes and wild animals.	Rabies.	Total.	All other causes.	Total.	Cholera.	Small-pox.	Plague.	Fover.	Dysentery and diarrhora.	Respiratory diseases.	Injuries.	All other eauses.	For the year.	Mean of previous five years.	Number.
		6			6	101	178	-74			3.43	3-87	2.23	-89	15.05	26:54	26-33	8
***	***	4			4	36	117	-16			9.66	1:45	1.12	-64	5.79	18.83	28.01	9
***	***					36	84				8-81	1.39	-93		8-35	19.48	21.57	10
311					6	156	519	2.60	-12		11:95	3:94	3:03	-36	9-46	31:49	30-03	11
***	***	3			3	120	302	-76	-08		9-90	2:30	2-21	-25	10-23	25-74	27-53	13
	***	8			8	74	223	-95	-27		6:34	3.81	7-22	1.09	10.08	30:37	26-01	13
						9	26	1.95			11.73	2-93			8:79	25-41	18.57	14
	***	7	1		8	55	165	.15			7.55	2-90	4:21	1.16	7:99	23-97	27:01	15
		1			1	64	132		-91		3-92	2-26	3.02	.15	9:66	19-92	22.03	16
	-					10	79	140	•38		10:32	2:06	-18		1.83	14:82	20-07	17
		2			2	21	80		-55		10-94	1.09	3.01	*55	5.73	21.89	23-25	18
		1			1	3	41		-76		12:54	-76		-38	1.14	15:58	18-23	19
		9			9	121	311				3:37	4-25	3-68	.56	7:56	19:43	21:80	20
		1		***	1	18	82	1:02	1.02		15:26	12:20	2.54	-50	9.16	41.70	25.43	21
					***	***	26	-86			16-35	-86	4:30			22:38	31-84	22
			***	***		3	34	-97			7:14	1.62	-32		-97	11.04	8-44	23
		48	1		49	827	2,399	.73	.18		8:18	3.10	2.84	'48	8.17	23.71	24.90	1
1		75	2	4	82	1,195	3,372	-71	-12		7:23	3.23	2.73	*55	8-01	22:60	23-92	
129	85	1,357	315	55	1,941	31,955	157,787	1.49	-70		13-67	1.43	-77	.28	4.66	23 02	25:34	1
129	20	1,001	1 010		1		1		1	1	1				1	1		1

VI(a) for the year 1926.

	7	8		- 1		1	0	1	1	12	Deatl	as under one	venr.	
Dyse	ntery.	Diarr	hoa.	Pneur	oonia.	Pht	hisis.	Other re	spiratory ases.	Deaths from				Infant mortality rate,
Deaths.	Ratio.	Deaths.	Ratio.	Denths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	child- birth.	Male.	Female.	Total.	
14	1:37	17	1.67	4	-39	3	-29	6	.58	4	9	5	14	61-67
52	3.07	11	-65	18	1.06	7	-41	48	2.84	19	62	50	112	217:90
39	6.59	11	1.86	13	2.19	3	*51	5	-81	6	26	23	49	283-2
7	1.53	3	-66			3	-66	6	1.31	1	11	15	26	228.07
50	3.03	15	-91	26	1.57	15	.91	9	*54	12	31	37	68	157-0
12	1.02	15	1.28	15	1.23	6	.51	5	.43	5	53	37	90	115-8
13	1.94	13	1.94	9	1:34	2	-29	6	•89	4	32	20	52	225.1
6	.96	3	*48	5	:80	1	.16	1	.16	7	21	16	37	197.8
20	2.72	8	1.09	17	2.31	13	1.77	28	3.13	3	11	20	31	149-7
19	2.76	1	-14		.,,	1	-14	28	4:06	1	17	15	32	142-22
11	1.66	4	-60	11	1.66	3	-45	6	.90	1	18	21	39	220-3
66	4.12	2	-12	15	-93	2	.12	42	2.62	7	17	16	33	90.41
4	-23	5	-29	9	-52	2	.11	6	•35	1	17	28	45	89:11

				Circles o	f Regis- ion.	Villa	ges.					
Number.	Distr	ricts.		Number in each district.	Numberf rom which deaths from sholors were report- ed.	Number in each district.	Number from which deaths from cholers were report- ed.	January.	February.	March.	April.	May.
1	3			3	4	5	6	7	8	9	10	11
	SURMA V	ALLE	т.									
1	Cachar			12	8	1,193	35	2	2	5	29	7
2	Sylhet			40	37	10,781	821	113	118	92	206	49
12	Total			52	45	11,884	856	115	120	97	235	56
3	Assam V. Goalpara	ALLEY		22	15	2,137	353	9	19	41	256	74
4	Kamrup			15	14	1,954	293	12	9	36	618	1,96
5	Darrang	413		13	11	1,406	201	3	5	27	84	24
6	Nowgong			10	9	1,495	16*	9	5	1	77	17
7	Sibsagar	***		17	7	2,143	40	3	6	11	5	
8	Lakhimpur	***		15	8	1,702	8	2	19	7	- 4	
	Total	-77		92	64	10,837	911	38	54	123	1,044	3,14
	Total :	for the	Province	144	109	22,721	1,767	153	174	220	1,279	3,70

IMPERIAL STATEMENT No. VIII .- Death's registered from

1				Circ	tration.	Villa	ges.	1	1	1				
Number.	Districts			Number in each district.	Number from which deaths from small-pox were reported.	Number in each district.	Number from which deaths from small-pox were reported.	January.	February.	March.	April.	May.	June.	July.
1	2			3	4	5	6	7	8	9	10	11	12	13
	SURMA VAI	LEY.					1000			06			1	03
1	Cachar	***	***	12	4	1,103	3			3	3	1	***	
2	Sylhet	***		40	19	10,781	94	19	18	21	20	29	17	22
	Total	***		52	23	11,884	97	19	18	24	23	30	17	2:
	ASSAR VAL	LET.												1.55
8	Goalpara		***	22	13	2,137	144	32	35	43	46	43	25	20
4	Kamrup		***	15	13	1,954	60	36	54	83	151	128	144	8
5	Darrang		***	13	11	1,406	44	31	14	7	17	16	19	1
6	Nowgong	***		10	1	1,495	1*	***		***	***	1		
7	Sibsegur		***	17	16	2,143	294	255	317	276	331	318	318	22
8	Lakhimpur	-	-	15	6	1,702	19	1	6	14	26	34	13	10
	Total	-	***	92	60	10,837	562	355	426	423	571	540	519	34
	Total for th	e Province		144	83	22,721	659	374	444	447	594	570	536	37

districts of Assam during each month of the year 1926.

								Total.		Ratio 1,000	of death of popul	hs per ation.	previous	
June.	July.	August.	September.	October.	November.	December.	Malo.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of five years.	Number.
12	13	14	15	16	17	18	19	20	21	23	23	24	25	26
21	2 162	3 64	5 28		3		88 1,032	51 861	139	·33	·21	-27 -74	2°20 1°71	1 2
514	164	67	33	15	3	109	1,120	912	2,033	-71	-62	-66	1.79	
444	221	33	137	3	1	1	907	999	1,906	2-23	2.80	2:49	1.57	3
1,601	448	187	91	23	73 6	7 4	2,501	2,575 280	5,076	6:29	7.05	6.65	3·87 2·16	5
159	5	1	10	8	2	1	254	200	454	1.22	1.06	1.14	1.63	6
15 16	13 12	11 10	2 5	7	8 5	2	43	47 51	90 91	·10	·13	·11	·27	8
2,353	748	276	277	70	97	15	4,091	4,152	8,243	2:03	2:31	2:16	1.62	
2,867	912	343	310	85	100	124	5,211	5,064	10,275	1.45	1.54	1.49	1-69	

Small-pox in the districts of Assam during each month of the year 1926.

			-	1		Total.	111		of deaths children.	Ratio 1,000	of death of popula	s per tion.	f previou	
August.	September.	October.	November.	December.	Male.	Female.	Total.	Under 1 year.	One to 10 years.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	Number.
14	15	16	17	18	19	20	21	23	23	24	25	26	27	28
											9	-		
	***		***	1	6	. 2	8			.03	.01	-01	.02	
7	6	14	17	37	125	102	227	17	33	.09	-08	-08	-0S	
7	6	14	17	38	131	104	235	17	32	.08	-07	-67	-07	
32	59	9	10	29	234	149	383	34	103	-57	-41	.50	*48	
105	26	32	25	40	498	411	909	130	311	1:25	1.12	1:19	*85	
2	75	5	1	1	115	87	202	3	7	45	*38	-42	.75	
	1				2		2		***	'01		-01	1.38	
231	131	190	53	291	1,633	1,305	2,938	166	497	3.76	3.35	3:57	*48	
31	13	8	4	19	97	74	171	37	57	'31	-27	-29	*06	
401	305	244	93	380	2,579	2,026	4,605	370	975	1:28	1.12	1.20	-62	
406	811	258	110	418	2,710	2,130	4,840	387	1,007	.75	-65	-70	-38	

					Circ	les of tration.	Villa	iges.			-		
Number.		Districts.			Number in each district.	Number from which deaths from fevers were reported.	Number in each dis- trict.	Number from which deaths from fevers were reported.	January.	February.	March.	April.	May.
1		2			3	4	5	6	7	8	9	10	11
		SURMA VA	LLEY.										
1	Cachar	411			12	12	1,103	483	350	331	341	380	400
2	Sylhet	-			40	40	10,781	8,204	3,243	2,599	2,109	2,825	2,762
	100				-	-	-	-					
		Total	***	***	52	52	11,884	8,687	3,593	2,930	2,450	2,705	3,184
		ASSAM VALI	EY.									-	
3	Goalpara	***		***	22	, 21	2,137	2,137	1,909	1,278	1,225	1,877	1,627
4	Kamrup		***		15	14	1,954	956	809	650	693	753	957
5	Darrang				13	12	1,406	1,266	508	489	457	528	674
6	Nowgong			***	10	10	1,495	61*	425	432	394	464	539
7	Sibangar			***	17	17	2,143	1,253	495	467	489	415	519
8	Lakhimpur	,	***	***	15	15	1,702	1,259	400	318	322	398	453
		Total			92	89	10,837	6,932	3,846	3,634	3,580	3,935	4,76
	111 919	Total for	the Province	3	144	141	22,721	15,619	7,439	6,564	6,030	6,640	7,958

* Mauza.

IMPERIAL STATEMENT No. X .- Deaths registered from

				Circles of		Ville	ages.					
Number.	Distr	icts.		Number in each dis- trict.	Number from which deaths from dyscutery and darrhos were reported.	Number in each dis- trict.	Number from which deaths from dysentery and diarrhosa were re- ported.	January.	February.	March.	April,	May.
1	2		7	3	4	5	6	7	8	9	10	11
	SURMA 7	VALLEY.										
1	Cachar	***	***	13	12	1,103	174	58	34	62	102	135
2	Sylhet	***	***	40	40	10,781	1,422	327	232	154	218	333
	1	otal	***	52	52	11,884	1,596	385	284	216	320	4/8
	Assam V	ALLEY.										
3	Goalpara			22	20	2,137	88	. 9	8	28	12	21
4	Kamrup	***	100	15	14	1,954	132	31	18	26	56	133
5	Darrang	***	100	13	12	1,406	263	36	38	116	122	213
6	Nowgong	***		10	10	1,495	45*	16	0	22	32	45
7	Sibsagar			17	15	2,143	562	62	80	81	82	92
8	Lakhimpur			15	14	1,702	146	48	38	71	81	125
	Total	***	***	92	. 85	10,837	1,235	202	200	344	385	629
	Total fo	r the Prov	ince	144	137	22,721	2,831	587	486	560	705	1,097

in the districts of Assam during each month of the year 1926.

						and a		Total.		Ratio 1,000	of death of popul	s per ation.	-ezd jo	
June.	July.	August.	September.	October.	November,	December.	Male.	Femalo.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 vious five years.	Number.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
490	463	409	384	321	433	559	2,481	2,402	4,883	9:48	10-05	9.75	13-62	1
2,759	2,672	2,353	2,217	2,657	3,166	3,578	17,240	15,199	32,439	13-17	12:33	12.76	15.85	1
3,240	8,135	2,761	2,601	2,978	3,599	4,137	19,721	17,601	37,322	12-56	11-96	12:27	15:48	
1,666	1,570	1,655	1,695	1,479	1,707	1,707	10,175	8,020	18,195	25.03	22-53	23.86	26:77	
1,092	1,273	1,027	880	825	814	815	5,528	5,060	10,588	13-91	13:85	13.88	15.63	4
1,022	950	546	879	585	749	670	4,133	3,924	8,057	1634	1747	16'87	15:30	- 5
559	591	561	576	540	429	473	3,209	2,774	5,983	15:37	14:65	15.03	16:25	- (
734	803	910	797	812	536	605	3,950	3,638	7,583	9-10	9-33	9-21	10:44	1
481	538	663	574	646	653	514	3,238	2,724	5,962	10:35	9:95	10-16	9:63	. 8
5,554	5,725	5,884	5,401	4,887	4,898	4,784	30,233	20,134	56,367	15.03	14.53	14-79	15:84	
8,803	8,800	8,125	8,002	7,865	8,487	8,921	49,954	43,735	93,689	13:94	13-37	13:67	15-68	

Dysentery and Diarrhwa in the districts of Issam during each month of the year 1926.

						anv		Total.		Ratio 1,000 c	of death of popula	s per tion.	previous	
June.	July.	Angust.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	Namber.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	20
11	100	9-1	20	7	1 50		1		1	1				
119	85	56	78	96	134	121	554	526	1,080	2-12	2-20	216	2-25	
306	237	216	207	299	445	474	1,871	1,597	3,468	1.43	1.29	1.36	1.43	
425	322	272	285	395	579	595	2,425	2,123	4,548	1.54	1:44	1.49	1.26	
78	15	23	18	6	14	14	130	116	246	-32	-33	*32	*30	
105	63	6)	30	50	43	31	338	248	646	1.00	.63	.84	.83	
171	128	90	96	76	85	70	722	519	1,241	2.86	2.31	2.59	2:00	
81	14	27	36	31	. 27	23	177	136	313	-84	-72	-79	*79	
145	144	145	84	150	124	112	732	578	1,310	1.69	1.48	1.59	217	
221	138	157	196	168	135	105	800	683	1,483	2:56	2.50	2:53	2.64	
751	502	402	460	481	428	355	2,959	2,280	5,239	1.47	1.27	1.37	1.43	
1,176	824	774	745	876	1,007	950	5,384	4,403	9,787	1:50	1.34	1.43	1:49	

				Circles of	Registra-	Villa	ges.					
Number.	Dist	ricts.		Number in each dis- trict.	Number from which deaths from respira- tory diseases were re- ported.	Number in each dis- trict.	Number from which deaths from respira- tory diseases were re- ported.	January.	February.	March.	April.	May.
1		2		3	4	5	6	7	8	9	10	11
	SURMA	VALLEY.										
1	Cachar	***	***	12	11	1,103	138	58	61	. 60	38	61
2	Sylhet		***	40	36	10,781	649	159	93	100	101	115
	Total			52	47	11,884	787	217	154	160	139	176
	Assam '	VALLEY.									1000	
3	Goalpara	***		22	15	2,137	37	10	8	14	8	16
- 4	Kamrup			15	14	1,954	38	22	16	18	17	16
5	Darrang		***	13	11	1,406	131	55	63	8	5	7
6	Newgong		***	10	10	1,495	27*	16	10	13	11	12
7	Sibsagar	***		17	13	2,143	189	45	86	. 69	83	69
8	Lakhimpur	***	***	15	13	1,702	47	84	99	90	68	93
	Total	***		92	76	10,837	469	232	282	212	192	213
	Total for	the Prov	ince	144	123	22,721	1,256	449	436	372	331	389

· Mauza.

IMPERIAL STATEMENT No. XII .- Deaths registered from plague

				Circle Regist	es of ration.	vill	ages.					
***************************************	Districts			Number in each district.	Number from which deaths from plague were reported.	Number in each district.	Number from which deaths from plague were reported.	January.	February.	March.	April.	May.
	2			3	4	5	6	7	8	9	10	11
	SURMA VAI	LEY.										177
1	Cachar			12	***	1,103		***	***	***		***
2	Sylhet			40	***	10,781				***	411	
	Total			52		11,884						
	ASSAM VAL	LEY.						-			-	100
3	Goalpara		***	22	***	2,137				***	***	,
4	Kamrup			15		1,954	***			***		
5	Darrang			13		1,406		***	-115	***		
6	Nowgong			10		1,495	***		***			
7	Sibsagar			17	***	2,143	***				***	***
8	Lakhimpur		***	15		1,702						
	Total			92		10,837		***				
	Total for the	Provi	ince	144	111	22,721		***		***	***	

							DMING	Total.		Ratio 1,000 c	of death of popula	s per	previous	
June.	July.	Angust.	September.	October.	November-	December.	Male.	Fomale.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	Number.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
56 118	80 132	64	65 107	54 139	81 136	89 164	451 881	316 596	767 1,477	1-72	1:32	1·53 ·58	2.06	1 2
174	212	177	172	193	217	253	1,332	912	2,244	-84	.63	-74	195	
										1/4/1	144	-		
9	3	5	14	9	12	8	77	39	116	19	-11	•15	25	3
12	24	18	28	21	28	16	158	78	236	*39	-21	*31	.45	4
7	12	4	61	71	63	66	241	181	422	-95	-80	-88	1:54	5
9	15	12	14	16	11	11	76	74	150	'36	*39	-37	-45	6
70	72	86	82	75	79	84	527	373	900	1.21	.96	1-09	1.60	7
126	80	124	129	112	98	129	750	463	1,232	2.40	1.76	210	3-04	8
233	206	249	328	304	291	314	1,829	1,927	3,056	.90	*68	*80	1.19	
407	418	426	500	497	508	567	3,161	2,139	5,300	*88	65	-77	1.09	

in the districts of Assam during each month of the year 1926.

								Total.		Ratio 1,000	of death of popula	s per tion.	previous	
June.	July.	August.	September.	October.	Norember.	December.	Malo.	Female.	Total.	Malo.	Formalo.	Total.	Mean ratio per 1,000 of p five years.	Number.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
HI WALL					1			130		TOL		The same		
***		***	***	***	111			***	***		***	***	***	1
		***	***	***			141					***	***	2
	***						***					241		
	***							-						3
		***									***			4
***		***	***											5
	***		***									***	***	6
***						***		***			***			7
***			***							***				8
				***	***									
***		***	***											

APPENDIX II.

PROVINCIAL.

Statement showing details of registration in compulsory areas.

Compulsory re	egistratio	n area.	Population according to Census of 1821.	Estimated births at 288 per 1,000 married women between the ages of 15 and 40.	Number of births registered during the year.	Estimated bixth-rate per millo.	Registered birth-rate per mille.	Including deaths in hos- queits in principal p	Excluding double in hos- pitals,	Including deaths in hospitals.	Excluding deaths in hos- pitals.	Number of prosecutions under Act IV (B.C.) of 1873.	Number of convictions,
1	1		2	3	4	5	6	7	8	9	10	11	12
611.1	-	1	20.004		0.00		22-24	119	86	11-66	8-43		
Silchar Hailakandi	***		2,228		227 42		18-85	25	17	11.23	7.63		
Sylhet	***	-	16,912	HII.	514		30-39	378	317	22.35	1874	3	2
Karimganj	***		4,552		114		25.04	94	72	20-65	15-82	12	11
Maulvi Bazar	***		3,334	193	50		14-99	26	15	7.79	4:50	3	3
Habiganj			5,918	OII.	173		29-23	202	179	34-13	30-25	3	3
Sunamganj			4.881		135		27-66	129	117	26'43	23:97	3	2
Dhubri			6,707	LUGIT	231	0.3	34.44	178	135	26:54	20:13	33	25
Gealpara	***		6,213		187	1	30-10	117	107	18.83	17:23	8	7
Gauripur			4,311	able.	162	ble.	37-58	84	84	19:48	19:48	86	
Gauhati	411		16,480	Not available.	433	Not available.	26:27	519	352	31:49	21.36	24	8
Barpeta			11,730	lot e	777	tot a	66:24	302	284	25.74	24-21	9	. 9
Texpur	.44		7,341	-	207	~	28-19	223	176	30-37	23-97	18	18
Mangaldai			1,023		30	CHI	29-32	26	18	25-41	17:60	15	10
Nowgong	***		6,885		225		32.68	165	105	23-97	15-25	13	13
Sibsagar			5,329		145		27:21	79	59	14-82	11.07	1	
Nazira	***	141	2,632		124		47.11	41	40	15.28	15.20	} 42	10
Jorhat	***	***	6,626		177		26.71	132	98	19-92	14.79		- 7
Golaghat	***	***	3,655		66		18:06	80	55	21.89	15:05	1	
Dibragarh	***		16,007		365		22-80	311	177	11943	11.06	23	11
Doom Dooma	***	***	1,162	1	23		19-79	26	26	22-38	22:28		***
North Lakhim	pur		1,966		63		32-04	82	70	41.70	35.61	4	4
Tinsukia			3,080		35	-	11.36	34	34	11.04	11:04	13	13
		17.	111	10 1	42	13 1	A. I	181	95.0	201		-	
	Total		149,175		4,505		30-20	3,372	2,623	22:60	17:58	312	149

* Cases are pending.

GOVERNMENT OF ASSAM.

The Governor and the Minister of Local Self-Government.

Resolution on the Annual Public Health Report of the Province of Assam for the year 1926.

Extract from the Proceedings of the Governor of Assam and the Minister of Local Self-Government in the Local Self-Government Department, Public Health Branch, No. 302L.S.G., dated the 5th September 1927.

READ-

The Public Health Report for the year 1926.

RESOLUTION.

The general improvement in the health of the province mentioned in last year's report was maintained during the year 1926. The death-rate, it is true, showed a small increase from 22.52 to 23.02 per mille, but was very considerably below the provincial average for the preceding quinquennium, viz., 25.95. The birth-rate on the other hand rose from 29.08 in 1925 and 29.16 in the previous quinquennium to 30.82 in 1926. The natural increase in the population during 1926 was 7.80 per mille as compared with 6.56 in 1925 and 3.21 for the previous five-year period. The death-rate was lower in Assam than in any other province in India except Burma and the North-West Frontier Province. On the other hand, the majority of the other provinces had a higher birth-rate.

- 2. The death-rate in tea gardens was again considerably less than amongst the general population and shows a small actual decrease as compared with the previous year. The birth-rate was slightly below the provincial average, but shows an improvement over the previous year. The natural increase of 11 per thousand of the population compares very favourably with the provincial average of 7.80.
- 3. There was no change in the agency employed for the collection and registration of vital statistics. In urban areas in which compulsory registration was in force, the check carried out by the vaccination inspecting staff showed that registration was very defective in the smaller towns such as Gauripur, Mangaldai and Tinsukia.

Unusually low birth and death-rates in certain rural areas, conspicuously the Majuli in Sibsagar and Margherita in Lakhimpur, point to very defective registration in these areas.

- 4. The improvement in the mortality from the chief diseases did not extend to cholera and small-pox. There was a severe outbreak of the former in Kamrup district and less severe, though still serious, outbreaks in Goalpara, Darrang and Nowgong. The death-rate from cholera for the province as a whole was, however, considerably less than in the preceding decennial period, and the Governor and his Minister note with satisfaction that the use of anti-cholera vaccine is becoming increasingly popular. The severe outbreak of small-pox in epidemic form in Sibsagar district which was mentioned in last year's report continued unabated and the general death-rate from this disease throughout the province was very much higher than that recorded both in the previous year and in the preceding decennial period. The opposition to vaccination in the districts of Sibsagar and Kamrup, which were those most effected, is very considerable and it has been necessary largely to extend the rules under the Epidemic Diseases Act making vaccination compulsory.
- 5. The resources of the Public Health Department for dealing with epidemics have been increased since the close of the year by the addition of another 'Epidemic

Unit' to the two previously in existence. The Director has pointed out that this is still very inadequate and has recently submitted a scheme for the reorganisation and enlargement of the Department. The scheme is receiving the most careful consideration of Government.

- 6. Anti-malaria measures were continued with success at Pasighat, Lumding, Haflong and Kohima. The high mortality from fevers in Gauhati town conclusively indicates the necessity for more attention being paid to the necessity of better drainage and jungle clearing within the Municipal area. The retail price of quinine, as foreshadowed in last year's report, was further reduced from six annas to four and a half annas per treatment tube. The sales of quinine treatment during the year showed a considerable increase.
- 7. The campaign against kala azar has continued with unabated vigour and there is good reason to believe that the epidemic has now passed its zenith and is well under control. The number of deaths from this disease decreased by over 30 per cent, and the number of cases by nearly 20 per cent. The decrease in the number of deaths was shared by all the districts in which the epidemic is of importance. The same applies as regards the number of cases with the exception of Sylhet and the Garo Hills. The new treatment by urea stibamine has proved very successful. At the close of the year under report the question of using urea stibamine for all Kala azar cases was under contemplation. There has been a very satisfactory decrease of over 1,000 in the number of patients who have stopped treatment before the cure was complete and the policy of making the treatment of urea stibamine universal ought still further greatly to reduce the number of such cases, in view of the much shorter time necessary to effect a cure as compared with the time necessary when Sodium Antimony Tartrate was the drug chiefly employed. The Governor and his Minister note with pleasure that all medical officers and Local and Municipal Boards have co-operated to make the campaign a success.
- 8. Major T. D. Murison, I.M. s., the permanent Director, held charge of the Department throughout the year. The Governor and his Minister congratulate him and his staff on a successful year's work. Their thanks are also due to Major Murison for his interesting report.

ORDER.—Ordered that the Resolution be published in the Assam Gazette.

By order of the Government of Assam,

R. FRIEL,

Offg. Secretary to the Government of Assam in the Transferred Departments.



