

Annual report on vaccination in Bengal.

Contributors

Bengal (India)

Publication/Creation

Calcutta : Bengal Secretariat Book Dept., [1928]

Persistent URL

<https://wellcomecollection.org/works/maxv4ugs>

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

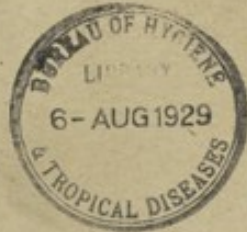
2



Government of Bengal
Public Health Department

Annual Report on Vaccination in Bengal

For the Year
1927-28



by

Dr. C. A. BENTLEY, M.B., D.P.H., D.T.M.&H., K.H.G., F.S.S.

Director of Public Health, Bengal

CALCUTTA
Bengal Secretariat Book Depot
1929

Price—Indian, Rs. 2-4; English, 4s.



22501899005



Government of Bengal
Public Health Department

Annual
Report on Vaccination
in Bengal

For the Year
1927-28



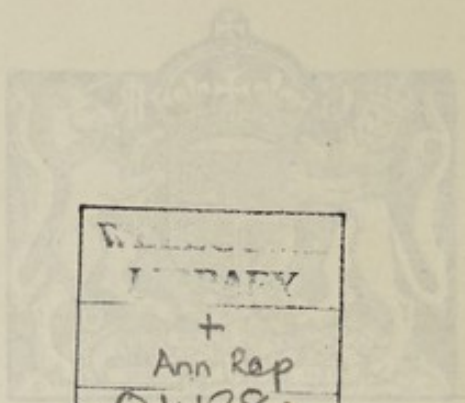
by

Dr. C. A. BENTLEY, M.B., D.P.H., D.T.M.&H., K.H.G., F.S.S.

Director of Public Health, Bengal

CALCUTTA
Bengal Secretariat Book Depot
1929





YEAR
+
Ann Rep
QW28
JJ4
B46
1927-28

Published by the Bengal Secretariat Book Depot,
Writers' Buildings, Calcutta.

Agents in India.

Messrs. S. K. Lahiri & Co., Printers and Booksellers, College Street, Calcutta.

Messrs. Thacker, Spink & Co., Calcutta.

Customers in the United Kingdom and the Continent of Europe
may obtain publications either direct from the High Commissioner's office
or through any bookseller.

BENGAL PUBLIC HEALTH DEPARTMENT.

No. 2057 V.

FROM DR. C. A. BENTLEY, M.B., D.P.H., D.T.M. & H.,

Director of Public Health, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

LOCAL SELF-GOVERNMENT DEPARTMENT.

Calcutta, the 15th January, 1929.

SIR,

I have the honour to submit, for the information of the Government of Bengal, the Annual Report on Vaccination in Bengal for the year 1927-28 with the statistical vaccination returns by Dr. Sufi, Assistant Director of Public Health in charge of Vaccination in the Bengal Public Health Department. The subject has been more fully dealt with in this report than in previous annual vaccination reports.

I have the honour to be,

SIR,

Your most obedient servant,

CHAS. A. BENTLEY,

Director of Public Health, Bengal.

BENGAL PUBLIC HEALTH DEPARTMENT

Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

Report on Vaccination in Bengal for the year 1927-28.

I have the honour to submit the following report on vaccination in Bengal during the year 1927-28

I was in charge of the Vaccination Bureau in the Provincial Public Health Department throughout the year.

2. Strength of staff.—Owing to the absorption in the rural public health organisation of some of the vaccination inspecting officers, their number in rural areas decreased from 143 in the previous year to 125; the aggregate number of vaccinators employed was 1,535 against 1,596 in 1926-27. Dacca, Howrah and South Suburban Municipalities employed three Inspectors while Midnapur Municipality paid a temporary allowance to two Sanitary Inspectors for supervising vaccination. The number of vaccinators employed by the mufassal municipalities increased from 144 to 157 during the year under review. The Corporation of Calcutta retained the same number of Inspectors (16) and vaccinators (58) as in the preceding year. The Provincial Department maintained two Special Inspectors for executive and research work.

3. General Vaccination Statistics.—From the following statement showing the number of operations performed in the province during the year under review, it appears that the primary vaccinations increased by 10·7 per cent., re-vaccinations by 33·2 per cent. and the total number of operations by 21·3 per cent. over those in the previous year. The average number of persons vaccinated by each vaccinator was 2,145 against 1,761 during the preceding year. 94·1 per cent. of the primary and 53·3 per cent. of the re-vaccination cases in which results were known were reported to have been successful as against 95·1 and 52·09 respectively in 1926-27.

Categories.	Number of operations performed.		Increases + or decreases	Percentage of increase + or decrease
	1926-27.	1927-28.		
Primary vaccinations	1,741,801	1,928,674	+186,873	+10·7
Revaccinations	1,536,780	2,047,163	+510,383	+33·2
Total	3,278,581	3,975,837	+697,256	+21·3

4. Recess Vaccination.—In order to cope with the small-pox epidemic during the non-season period, recess vaccination with intensive campaigns in some districts had to be resorted to as in the previous year. A total of 1,162,525 operations including 335,901 primary and 826,624 re-vaccinations was performed during this period against 393,875, 113,119 and 280,756 vaccinations respectively, done during the corresponding period of the previous year, giving an increase of 195·1 per cent. in the total, 196·1 per cent. in the primary and 194·4 per cent. in the number of re-vaccinations.

5. Vaccination in rural areas.—The table below shows the number of operations performed in the rural areas:—

Districts.	Vaccinations.		Differences.	Percentage of increase + or decrease	Number of small-pox deaths 1927-28.
	1926-27.	1927-28.			
Burdwan	55,732	68,441	12,709	+22·8	1,040
Asansol Mining Settlement.	62,832	29,168	33,664	-53·6	51
Birbhum	75,270	75,792	522	+0·7	1,024
Bankura	68,657	72,012	3,355	+4·9	243
Midnapur	190,393	382,606	192,213	+100·9	4,535
Hooghly	38,622	44,733	6,111	+15·8	919
Howrah	35,769	39,212	3,443	+9·6	1,511
24-Parganas	99,732	153,561	53,829	+53·9	2,179
Nadia	71,831	97,171	25,340	+35·3	680
Murshidabad	128,572	158,914	30,342	+23·6	2,977
Jessore	83,084	83,986	902	+1·1	386
Khulna	67,137	76,477	9,340	+13·9	126
Rajshahi	94,123	99,434	5,311	+5·6	327
Dinajpur	109,407	138,809	29,402	+26·9	1,594
Jalpaiguri	60,626	63,988	3,362	+5·5	69
Darjeeling	19,890	18,495	-1,395	-7·0	21
Rangpur	118,737	163,901	45,164	+38·0	2,619
Bogra	71,300	69,974	-1,326	-1·9	2,710
Pabna	157,710	212,754	55,044	+34·9	3,376
Malda	76,767	184,851	108,084	+140·8	1,537
Dacca	155,640	161,997	6,357	+4·1	2,542
Mymensingh	369,262	387,310	18,048	+4·9	3,304
Faridpur	112,342	128,990	16,648	+14·8	1,002
Bakarganj	108,270	150,341	42,071	+38·8	291
Chittagong	97,770	122,929	25,159	+25·7	1,839
Noakhali	123,339	182,948	59,609	+48·3	739
Tippura	151,278	223,137	71,859	+47·5	1,150
Chittagong Hill Tracts	9,984	9,825	159	-1·6	8
Total for the province	2,804,066	3,600,856	996,790	+28·4	38,600

With the exception of the Asansol Mining Settlement, Darjeeling, Bogra and Chittagong Hill Tracts, all the districts showed an increase in the total number of their vaccinations. This increase and decrease will be commented upon in the next paragraph. Suffice it to say here that the increase was most marked in Malda and Midnapur districts where it was 140·8 and 100·9 per cent. respectively over the preceding year.

6. The following statement compares the primary and re-vaccinations in rural areas performed during the year under review and the previous year:—

ing vaccination and re-vaccination and also to the absence of small-pox in epidemic form. The District Health Officer, Birbhum, attributes the decrease

Districts.	Primary Vaccinations.			Percentage of increase + or decrease —	Re-vaccinations.			Percentage of increase + or decrease —
	1926-27.	1927-28.	Difference.		1926-27.	1927-28.	Difference.	
Burdwan	33,710	40,290	6,580	+19.5	22,022	28,156	6,129	+27.8
Asansol Mining Settlement	16,736	13,142	3,594	-21.5	46,096	16,026	30,070	-65.3
Birbhum	36,616	37,360	744	+2.0	38,654	38,432	222	-0.6
Bankura	32,524	36,694	4,170	+12.8	36,133	35,318	815	-2.3
Midnapur	83,207	143,629	60,422	+72.6	107,186	238,977	131,791	+123.0
Hooghly	20,867	19,862	1,005	-4.8	17,755	24,871	7,116	+40.1
Howrah	22,080	24,626	2,546	+11.5	13,689	14,586	897	+6.5
24-Parganas	61,990	112,643	50,653	+81.7	37,732	40,918	3,186	+8.4
Nadia	38,612	45,045	6,433	+16.6	33,219	52,126	18,907	+56.9
Murshidabad	49,071	55,958	6,887	+14.0	79,501	102,956	23,455	+29.5
Jessore	47,505	42,951	4,554	-9.6	35,579	41,035	6,456	+18.3
Khulna	45,793	52,390	6,597	+14.4	21,344	24,087	2,743	+12.8
Rajshahi	41,992	40,740	1,252	-3.0	52,131	58,694	6,563	+12.6
Dinajpur	77,263	83,733	6,470	+8.4	32,144	55,076	22,932	+71.3
Jalpaiguri	21,227	29,510	8,283	+39.0	29,399	34,478	5,079	+17.3
Darjeeling	10,392	8,566	1,826	-17.6	9,498	9,929	431	+4.5
Rangpur	75,354	93,779	18,425	+24.4	43,383	70,122	26,739	+61.6
Bogra	27,460	30,574	3,114	+11.3	43,840	39,400	4,440	-10.1
Pabna	77,275	74,301	2,974	-3.8	80,435	138,453	58,018	+72.1
Malda	32,312	27,467	4,845	-15.0	44,455	157,384	112,929	+254.0
Dacca	131,199	106,214	24,985	-19.1	24,441	54,883	30,442	+124.5
Mymensingh	256,094	240,839	15,255	-6.0	113,168	146,471	33,303	+29.4
Faridpur	53,573	64,993	11,420	+21.3	58,769	63,997	5,228	+8.9
Bakarganj	101,091	126,696	25,605	+25.3	7,179	23,645	16,466	+229.3
Chittagong	54,530	64,542	10,012	+18.3	43,240	58,387	15,147	+35.0
Noakhali	62,983	78,047	15,064	+23.9	60,356	104,901	44,545	+73.8
Tippera	110,913	121,717	10,804	+9.7	40,365	101,420	61,055	+151.3
Chittagong Hill Tracts	6,810	6,242	568	-8.4	3,174	3,583	409	+12.9
Total	1,629,179	1,822,550	193,371	+11.9	1,174,887	1,778,306	604,419	+51.3

Primary vaccinations increased in all but Asansol Mining Settlement, Hooghly, Jessore, Rajshahi, Darjeeling, Pabna, Malda, Dacca, Mymensingh and the Chittagong Hill Tracts; whereas re-vaccination was in excess compared with the previous year in all the districts of the province except Asansol Mining Settlement, Birbhum, Bankura and Bogra. The increase in the number of primary vaccinations was most noticeable in the 24-Parganas (81.7 per cent.) and Midnapur (72.6) and in re-vaccinations in Malda (254.0 per cent.), Bakarganj (229.3), Tippera (151.3), Dacca (124.5) and Midnapur (123.0). The decrease in the number of primary vaccinations will be discussed later when dealing with the degree of protection among available infants (paragraph 9 infra). The decrease in the number of vaccinations in Asansol Mining Settlement amounting to 21.5 per cent. in the case of primary and 65.3 per cent. in re-vaccinations has been ascribed by the Chief Sanitary Officer to the decreased number of persons requir-

ing vaccination and re-vaccination and also to the absence of small-pox in epidemic form. The District Health Officer, Birbhum, attributes the decrease in re-vaccinations to his district being almost free from small-pox, although according to the epidemic diseases returns there were 1,024 deaths from small-pox in that district. The District Health Officer, Bankura, explains the reduction by "the less prevalence of small-pox cases" in his district. In Bogra the re-vaccinations decreased by 4,440 or 10.1 per cent. compared with the previous year in spite of the fact that 2,710 deaths occurred from small-pox there during the year under review. The District Health Officer makes "a greater attention paid to primary vaccination" responsible for this reduction. The District Health Officer is very much mistaken if he believes that "a greater attention paid to primary vaccination" alone at the expense of re-vaccination will help him in averting epidemics of small-pox; in fact the high mortality from small-pox in this district can be appropriately ascribed to negligence in carrying out an intensive campaign of re-vaccination as was undertaken in many other districts where epidemics

of small-pox occurred during the year. This point will be referred to again later in this report. But while the primary and re-vaccinations as a whole, showed an excess over those of the previous year, the former outnumbered the latter by 44,244 in 1927-28 in 15 districts as follows :—

Districts.	Excess of primary over re-vaccinations, 1927-28.	Small-pox deaths, 1927-28.
1. Mymensingh ..	94,368	3,304
2. Dacca ..	51,331	2,642
3. Rangpur ..	23,657	2,619
4. 24-Parganas ..	71,725	2,179
5. Chittagong ..	6,155	1,639
6. Dinajpur ..	28,657	1,594
7. Howrah ..	10,040	1,511
8. Tippera ..	20,297	1,150
9. Burdwan ..	12,139	1,040
10. Faridpur ..	996	1,002
11. Jessore ..	1,916	386
12. Bankura ..	1,376	243
13. Bakarganj ..	103,051	201
14. Khulna ..	28,303	126
15. Chittagong Hill Tracts	2,659 (since July 1927).	8

There may be some excuse for the last five districts named above for this reduction in re-vaccinations, because the number of deaths from small-pox was not so high there as to afford inducement to

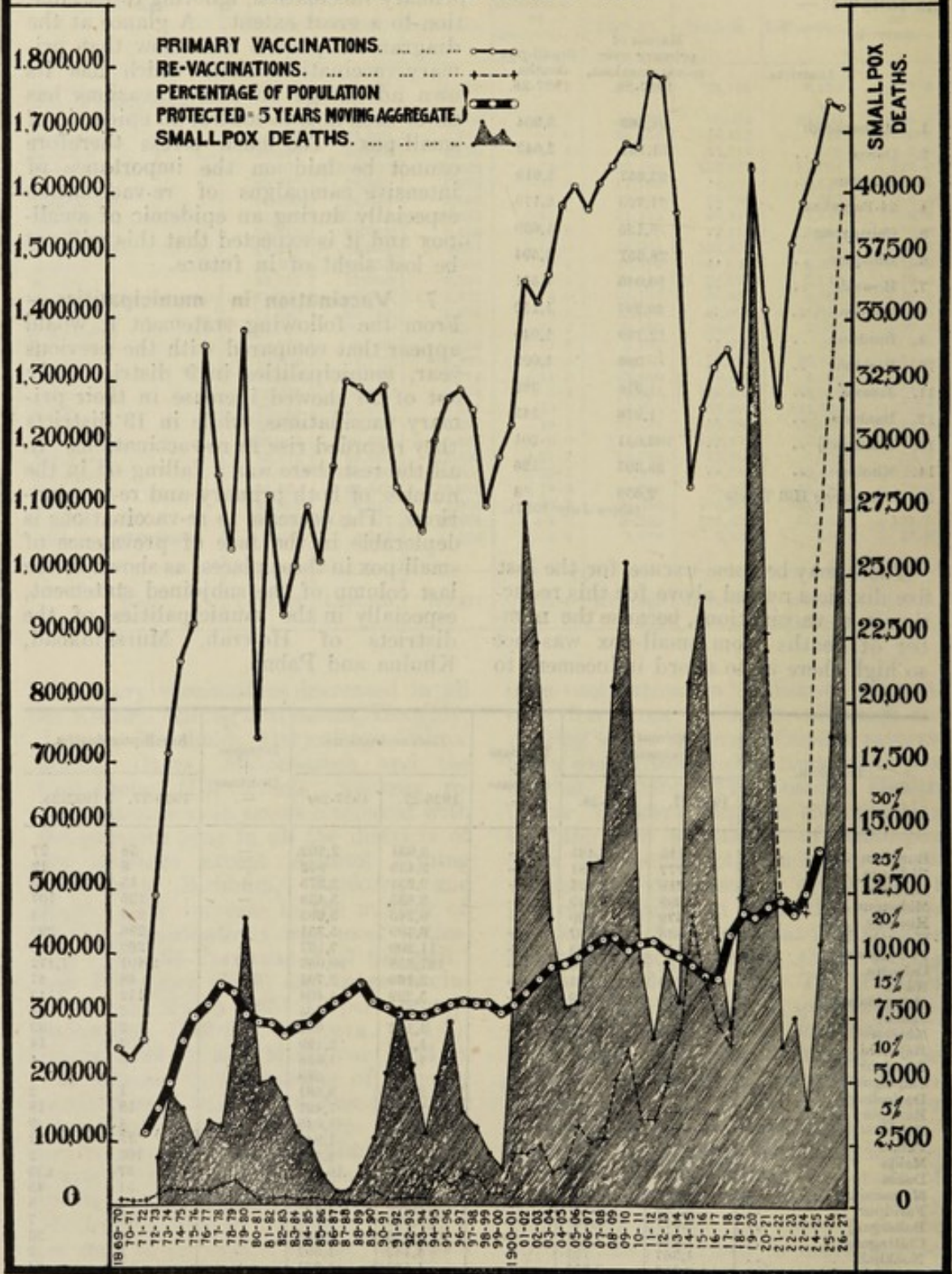
the people to get themselves re-vaccinated, but the state of affairs in the other districts of the list is extremely regrettable, in view of the serious outbreaks of small-pox epidemics in those localities. Unfortunately greater attention has been paid till quite recently to primary vaccination, ignoring re-vaccination to a great extent. A glance at the diagram on page 8 will show that primary vaccination alone which has its own advantage on other occasions has never been able to control an epidemic of small-pox. Too much stress therefore cannot be laid on the importance of intensive campaigns of re-vaccination especially during an epidemic of small-pox and it is expected that this will not be lost sight of in future.

7. Vaccination in municipalities.— From the following statement it would appear that compared with the previous year, municipalities in 9 districts only out of 26 showed increase in their primary vaccinations, while in 13 districts they recorded rise in re-vaccinations. In all the rest there was a falling off in the number of both primary and re-vaccinations. The decrease in re-vaccinations is deplorable in the face of prevalence of small-pox in these places, as shown in the last column of the subjoined statement, especially in the municipalities of the districts of Howrah, Murshidabad, Khulna and Pabna.

Districts.	Primary Vaccinations.		Increase + decrease —.	Re-vaccinations.		Increase + Decrease —.	Small-pox deaths.	
	1926-27.	1927-28.		1926-27.	1927-28.		1926-27.	1927-28.
Burdwan ..	3,115	2,481	—	3,931	3,202	—	58	27
Birbhum ..	777	181	—	2,439	952	—	8	12
Bankura ..	2,719	2,492	—	2,251	2,275	+	13	25
Midnapur ..	2,809	2,049	—	9,835	5,438	—	136	107
Hooghly ..	7,479	4,820	—	9,245	3,693	—	236	54
Howrah ..	4,825	4,267	—	6,799	5,351	—	286	296
24-Parganas ..	12,643	13,039	+	11,200	7,157	—	262	186
Calcutta ..	29,162	20,993	—	187,538	90,087	—	2,401	1,172
Nadia ..	3,203	2,961	—	2,169	2,791	+	48	47
Murshidabad ..	2,596	2,239	—	5,229	4,404	—	112	143
Jessore ..	324	239	—	458	194	—	2	4
Khulna ..	505	580	+	1,152	698	—	2	33
Rajshahi ..	1,004	951	—	1,329	2,199	+	2	14
Dinajpur ..	459	595	+	1,443	1,628	+	2	4
Jalpaiguri ..	398	363	—	458	588	+	..	..
Darjeeling ..	884	1,129	+	3,042	3,681	+	1	2
Rangpur ..	900	1,418	+	2,274	7,427	+	18	18
Bogra ..	264	284	+	552	1,045	+	4	9
Pabna ..	1,677	2,127	+	2,176	1,943	—	18	52
Malda ..	1,376	1,223	—	1,851	2,149	+	105	2
Dacca ..	7,181	8,021	+	9,757	16,474	+	37	233
Mymensingh ..	3,630	3,448	—	3,148	5,331	+	31	45
Faridpur ..	2,082	1,722	—	1,386	1,225	—	8	8
Bakarganj ..	2,317	1,895	—	3,600	1,726	—	13	7
Chittagong ..	1,122	1,897	+	1,458	8,354	+	5	23
Noakhali ..	1,367	771	—	4,143	1,597	—	8	2
Tippera ..	2,282	2,001	—	1,685	1,851	+	1	24
Total ..	97,100	84,186	—	280,548	183,460	—	3,827	2,554

VACCINATION & SMALL POX IN BENGAL

1869-70 TO 1926-27



8. **Vaccinations performed by other agencies.**—The comparative statement below shows the number of vaccinations performed by other agencies :—

Agencies.	Primary vaccinations.		Increase + or decrease	Re-vaccinations.		Increase + or decrease
	1926-27.	1927-28.		1926-27.	1927-28.	
Tea gardens ..	5,203	11,566	+	2,349	13,957	+
Factories ..	8,605	7,303	-	28,742	9,038	-
Railways ..	1,424	2,746	+	8,139	27,220	+
Steamers* ..	..	..	-	9,534	2,391	-
Dispensaries ..	15	..	-	16	..	-
Jails ..	275	323	+	32,565	32,791	+
Total ..	15,552	21,938		81,345	85,397	

* No return received from the British India Steam Navigation Company, Limited.

9. Protection afforded to infants.—

(a) Provincial statement A appended to this Report shows that 261.4 infants per 1,000 of the surviving population under one year of age available for vaccination, were vaccinated successfully during the year under review compared with 273.4 in the previous year. In rural circles this proportion was 246.7 and in mufassal municipalities 511.7 against 249.7 and 589.2 respectively in 1926-27. There was thus a decrease all round especially in Calcutta where it fell from 1,664.7 in 1926-27 to 856.8 in 1927-28.

(b) The degree of protection afforded to infants per 1,000 of the surviving population in the following districts is ridiculous :—

Districts.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28
Bakarganj ..	23.9	45.2	27.8	33.4	41.2
Faridpur ..	35.8	61.3	96.7	125.4	77.9
Mymensingh ..	110.1	94.1	100.2	100.9	95.6
Dacca ..	78.9	124.2	125.1	168.07	115.3
Bogra ..	137.6	141.3	82.3	77.3	137.1

Thirteen of the rural circles recorded a rise in their successful vaccination of infants compared with the previous year but this was outnumbered by a decrease in the remaining 14. This decrease was most marked in Malda, Darjeeling, Chittagong Hill Tracts and Rajshahi. It will be interesting to note the number of primary vaccinations in some of those districts which show a diminished rate of protection (*vide* subjoined statement).

The following points are worthy of note in this connection :—

(a) In all these rural areas, except Malda, the number of primary vaccinations is far in excess of the surviving population of infants, especially in Mymensingh, Pabna and Dacca. This is explained by vaccination much delayed beyond the age prescribed by law for primary vaccination.

(b) In six of these areas, although the surviving population exceeded that of the previous year, the number of those successfully vaccinated showed a comparative decline, possibly because the total number of such vaccinations decreased. In view of the low degree of protection as shown in the subjoined table the explanation of some of the District Health Officers as to the reduction in the number of primary vaccination in their districts being due to the paucity of unprotected children is untenable. Now that the Births and Deaths Registration Act has been applied to all these areas except the Chittagong Hill Tracts, it is expected that there will be a decided improvement in this direction.

(c) Turning to municipalities, it may be incidentally mentioned that a comparison of the last three years' figures show a gradual decrease in the number of operations and in the degree of protection afforded to infants.

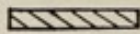
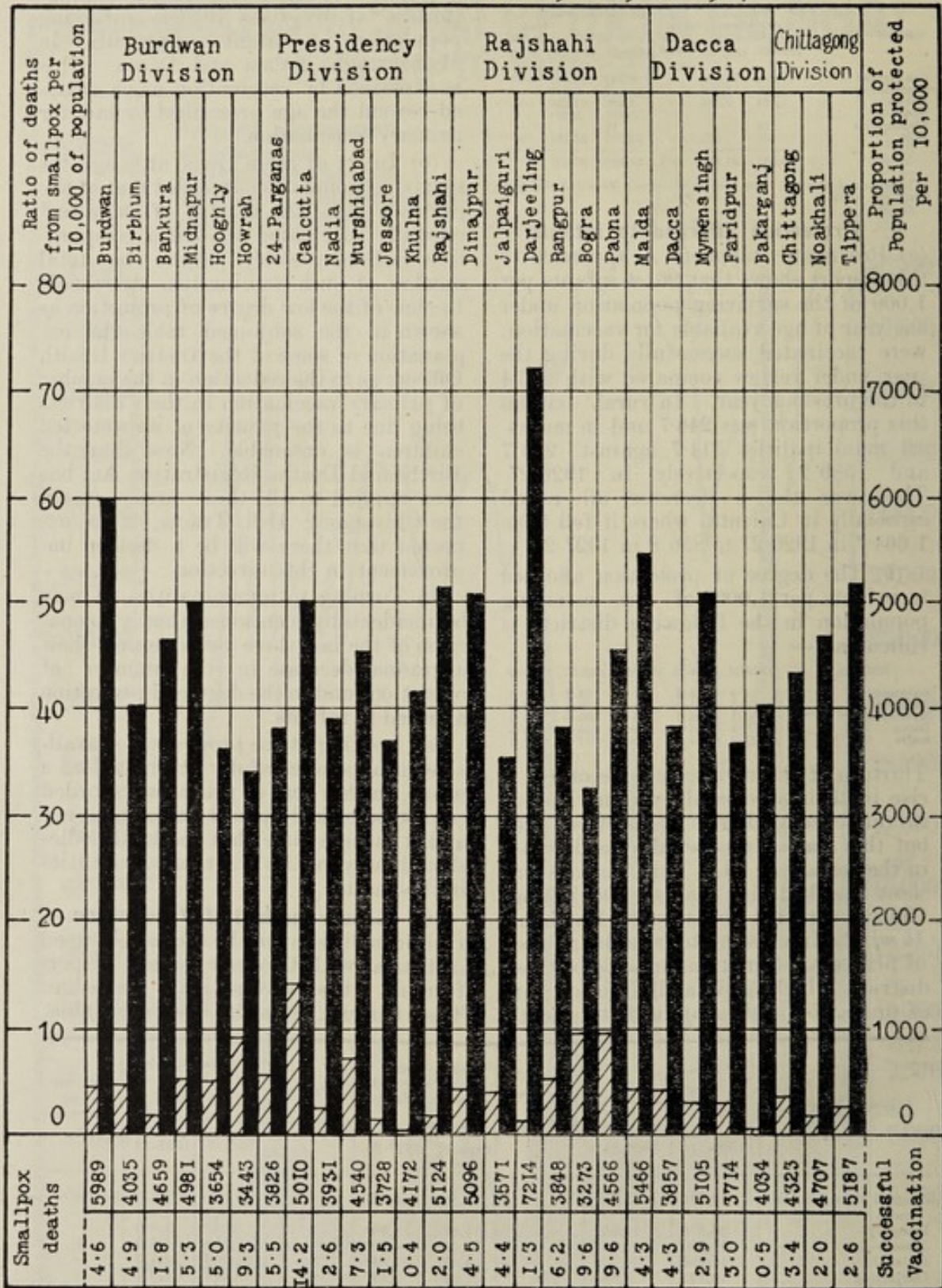
(d) Looking at the proportion of available infants successfully vaccinated as a whole, the low rate of protection afforded cannot be looked upon with complacency and it is high time that the local bodies should fully realise their responsibilities in this matter.

10. Linear method of Vaccination.—

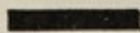
Opinions differ as to the success obtained in Bengal with this new method of performing the vaccination operation. The District Health Officer, Malda,

Rural Circles.	Primary Vaccinations.		Increase + or decrease —	Surviving available population of infants.		Increase + or decrease —	Number successfully vaccinated.		Increase + or decrease.
	1926-27.	1927-28.		1926-27.	1927-28.		1926-27.	1927-28.	
Asansol Mining Settlement.	16,736	13,142	—	7,525	6,917	—	7,200	5,479	—
Hooghly ..	20,876	19,862	—	17,622	17,804	+	3,940	2,801	—
Jessore ..	47,505	42,951	—	41,638	34,183	—	7,198	11,421	+
Rajshahi ..	41,992	40,740	—	34,622	37,941	+	22,653	18,482	—
Darjeeling ..	10,392	8,566	-	7,280	7,347	+	4,384	2,973	—
Pabna ..	77,275	74,301	—	25,753	28,409	+	7,976	9,248	+
Malda ..	32,312	27,467	—	25,246	27,645	+	19,784	13,246	—
Dacca ..	131,199	106,214	—	62,673	69,989	+	10,534	8,096	—
Mymensingh ..	256,094	240,839	—	90,847	97,504	+	9,172	9,328	+
Chittagong Hill Tracts	6,810	6,242	—	3,815	3,944	+	1,115	545	—

DIAGRAM ILLUSTRATING DEATH-RATES FROM SMALLPOX AND DEGREE OF PROTECTION AFFORDED DURING 1918-19 TO 1927-28.



Indicate the death rates: from Smallpox.



Indicate the proportion of population protected by Vaccination.

states that he vaccinated about 1,000 persons with his own hand by this method and he found it more successful than the old gridiron process. Others relying on the reports of their Sub-Inspectors of Vaccination and vaccinators hold a reverse opinion. Naturally the vaccinators, used to the old method, feel a distaste for any innovation and so long as they are not sufficiently practised in the new method, the results obtained by them cannot be accepted as a reliable index of the failure of the linear method vaccination.

11. Cost of Vaccination.—The total cost of vaccination in 1927-28 amounted to the sum of Rs. 4,89,681-9-8 against Rs. 4,52,819-14-9 in the previous year. Rupees 1,77,523-0-8 (including the recurring annual grant of Rs. 50,000 by the local Government for free vaccination) was contributed from provincial revenues, Rs. 1,90,037-1-6 from district and Rs. 1,22,121-7-6 from municipal funds. The average cost of each successful case was two annas and eight pies against two annas and eleven pies in the preceding year.

12. Deaths from small-pox.—The diagram on page 10 shows the death rates from small-pox in each district and the proportion of population protected against the disease by vaccination during the past ten years. The epidemic of small-pox which originated in December, 1924, is still going on. It will appear from the figures noted below that the number of deaths from this disease has been gradually increasing since the year 1924-25 when the quinquennial outbreak started.

1924-25.	1925-26.	1926-27.	1927-28.
10,443	18,618	31,936	39,713

This increase has been shared by practically every district.

In the Public Health Report for the year 1923, Dr. Bentley had forecasted a specially severe recrudescence of small-pox almost in the form of a pandemic in 1930-33 and a glance at the figures quoted above is sufficient to convince one that the situation has been steadily heading towards the fulfilment of the prediction. Since 1900 small-pox

Statement showing the number of vaccinations performed by the Sanitary Inspectors, Vaccination Inspecting staff and the number of villages where small-pox was prevalent during 1927-28.

Districts.	Number of villages in the district.	Number of villages attacked with small-pox.	Number of sanitary Inspectors.	Number of operations performed by Sanitary Inspectors.			Number of vaccination Inspectors and Sub-Inspectors.	Number of operations performed by the Vaccination Inspecting staff.		
				Primary.	Re-vaccination.	Total.		Primary.	Re-vaccination.	Total.
Burdwan ..	2,817	362	12	..	..	3,874	..	..	..
Birbhum ..	2,302	379	3	598	1,038	1,636	3	505	1,880	
Bankura ..	4,003	198	4	942	2,127	3,069	2	719	1,687	
Midnapur ..	10,351	1,179	19	..	..	13,879	7	..	4,453
Hooghly ..	2,197	633	5	152	260	412	3	521	2,937	
Howrah ..	863	100	7	36	170	206	2	432	101	
24-Parganas ..	3,427	427	15	1,389	2,569	3,958	7	1,069	1,658	
Nadia ..	2,353	113	6	4	68	72	6	602	4,568	
Murshidabad ..	1,974	279	6	762	1,189	1,951	5	1,012	6,438	
Jessore ..	3,613	56	7	266	746	1,012	1	79	63	
Khulna ..	2,011	236	17	353	138	491	3	105	492	
Rajshahi ..	4,487	270	5	94	657	751	3	252	196	
Dinajpur ..	6,612	446	8	118	138	256	3	1,767	5,704	
Jalpaiguri ..	722	51	2	6	22	28	3	376	1,473	
Rangpur ..	4,102	134	12	..	..	1,431	3	..	1,487
Bogra ..	2,780	134	5	..	5	5	2	85	128	
Pabna ..	2,539	543	8	665	2,053	2,718	2	1,055	1,432	
Malda ..	2,239	449	11	..	..	1,848	2	..	1,691
Dacca ..	4,737	957	21	3,188	2,588	5,776	5	611	680	
Mymensingh ..	7,354	711	19	1,571	1,981	3,552	6	2,087	218	
Faridpur ..	3,363	82	7	695	970	1,665	5	1,187	2,631	
Bakarganj ..	2,990	174	16	1,889	642	2,531	4	2,905	2,479	
Chittagong ..	870	237	8	..	..	2,297	3	..	313
Noakhali ..	1,719	221	14	..	..	3,901	4	..	8,214
Tippera ..	4,018	227	11	541	1,386	1,927	3	4,088	3,268	
Total ..	84,443	8,598	248	13,269	18,747	59,246	87	18,457	38,033	

deaths have ever been on the increase, with remissions every third or fourth year for two or three seasons and never recording a rate below .08 per mille. It is quite possible that the present epidemic may simply be a fore runner of the apprehended pandemic and may subsequently merge into it. To meet the pandemic a proposal has been submitted to the local Government for a provision of adequate funds in the ensuing year's public health budget to enable local authorities to carry out under the supervision of the Public Health Department intensive campaigns of mass re-vaccination against the apprehended pandemic of small-pox. All local bodies have been asked to strain every nerve to put the public health organisation of the province on the best possible footing so as to push forward vaccination and re-vaccination as widely as possible. The supervising rural health staff composed of the Sanitary Inspectors in charge of health circles and Vaccination Inspectors and Sub-Inspectors were urged early in the season to perform vaccination with their own hands in epidemic areas and their work as shown below, except in a few instances, e.g., in Nadia and Jalpaiguri, has not been negligible.

Intensive campaigns of vaccination and re-vaccination were undertaken in Midnapur, Pabna, Murshidabad, Birbhum, Rangpur, Dinajpur and Malda districts. The Government staff was frequently deputed to help the local bodies in their vaccination campaigns. In addition to both the Special Inspectors of Vaccination who were continually kept on the move throughout the year, Babu Surendra Nath Mazumdar, a Bengal Vaccine depot assistant, operated upon 4,651 persons in the English Bazar Municipality during the course of a very severe outbreak of small-pox in Malda district which starting in November 1927 lasted throughout the year, affecting simultaneously about 284 villages and claiming 1,482 victims out of 6,875 persons attacked from January to April 1928. The campaign in Malda district is still going on and 157,773 operations have been performed there during the last four months of the current year. A full report on the epidemic and the steps taken to combat it will form part of the next year's vaccination report.

13. Percentage of success with glycerinated lymph.—Glycerinated lymph alone is issued now and the percentage

of success obtained with it is shown below :—

	Primary vaccinations.			Revaccinations.		
	Total number of operations performed.	Successful.	Percentage of successful cases in which results were known.	Total number of operations performed.	Successful.	Percentage of successful cases in which results were known.
1926-27*	1,737,906	1,654,041	95.1	1,528,841	798,577	52.2
1927-28	1,928,674	1,814,715	94.1	2,047,163	1,092,249	53.3

*Only with glycerinated lymph.

The highest percentage of success in primary vaccinations (99.3) was obtained in Khulna and in re-vaccinations (77.4) in Dinajpur, the lowest percentages being 85.1 in Malda in primary cases and 32.7 in the Chittagong Hill Tracts in re-vaccinations.

14. Inspections.—The following statement shows the details of inspection by the various inspecting agencies :—

Inspecting agencies.	Percentage of inspection to total number vaccinated.		Percentage of cases found successful to total number inspected.		Percentage of success reported by vaccinators.
	Primary vaccinations.	Revaccinations.	Primary vaccinations.	Revaccinations.	
1. District Health Officers and Civil Surgeons of Darjeeling and Chittagong Hill Tracts	2.5	2.2	93.9	72.1	94.1
2. Municipal Superintendents of Vaccination and municipal Sanitary Inspectors	1.6	2.7	95.1	26.8	55.8
3. Assistant Superintendents of Vaccination and rural Sanitary Inspectors and Assistant Health Officers	24.1	11.1	91.4	53.3	Primary Re-vaccination

(a) The District Health Officers of Chittagong, Rangpur and Howrah inspected 15.9, 13.5 and 11.7 per cent. respectively of the total number of primary cases vaccinated; while of the re-vaccination cases, the District Health Officer of Rangpur inspected 24.9 per cent. In all the other districts the percentage of inspection by these authorities was very low. In fact not a single inspection was done by the District Health Officers of Nadia and Bogra. The District Health Officer, Jessore, inspected only .46 per cent. of the primary cases, but no re-vaccinations. The work of inspection on the whole has been very perfunctory, except in the few notable cases mentioned above.

The highest percentage of success in primary cases 100.0 per cent. was observed by the District Health Officer of Jessore and the Civil Surgeon of Darjeeling; in re-vaccinations the maximum 97.5 per cent. was noted by the District Health Officer, Rangpur. On the other hand only 23.8 per cent. of the primary and 14.8 per cent. of the re-vaccination cases inspected were found to be successful by the District Health Officers of Bakarganj and Mymensingh respectively.

(b) So far as the municipal inspecting staff was concerned, the highest percentage of primary cases (80.0) was inspected in the municipalities of Dinajpur district, and of re-vaccinations (63.2) in those of Hooghly, the lowest 4.6 for primary and 4.9 for re-vaccinations being noted by the Howrah municipal staff.

A success of 100.0 per cent. in primary cases was recorded by the Jessore and Jalpaiguri municipal staff, and of 75.5 per cent. in re-vaccination by that of Nadia. The minimum percentage of success in primary cases (81.9) and in re-vaccinations (13.02) was registered in the municipalities of Bankura.

(c) The rural inspecting staff inspected the highest percentage of primary cases (83.8) in Darjeeling district and that of re-vaccinations (66.3) in the Chittagong Hill Tracts while at the other end only 1.8 per cent. of the primary cases and 1.4 per cent. of re-vaccinations were inspected by the rural staff of Malda and Mymensingh districts. The inspection percentage of Birbhum, Bankura, Pabna and Malda staff in primary cases and of Birbhum, Bankura, Midnapur, Nadia, Jessore, Khulna, Rajshahi, Jalpaiguri, Pabna, Malda, Mymensingh, Chittagong and Tippera staff in re-vaccinations is extremely low, being below 10 per cent. This state of affairs is to be highly deprecated, since it is certain to lead to a deterioration of vaccination work both in quantity and quality which is extremely undesirable especially at the present stage when the whole province has already been in the throes of an epidemic of small-pox since 1924 and a still worse pandemic is apprehended to start about 1930-33.

The Malda staff noted the highest percentage of success (98.4) in primary cases and Midnapur 96.8 in re-vaccinations. The minimum 86.8 per cent. in

primary cases and 28.4 per cent. in re-vaccinations was registered by Mymensingh and Burdwan staff respectively. I am inclined to doubt the accuracy of these percentages especially in re-vaccination cases. In my experience even a 50 per cent. success in revaccination cases is hardly attained and 96.8 per cent. success as observed by the Midnapur staff is absurd. A scratch mark on the skin is not to be taken as an index of success unless there is foveation; of course I exclude cases of accelerated reaction which are never noticed by the inspecting staff.

15. **Bengal Vaccine Depot.**—During the year under review, 2,958 calves were vaccinated against 2,883 in the previous year, but pulp could be collected from 2,664 calves only. The average yield of pulp per calf was 250.76 grains against 201.09 in 1926-27, the increased average being due to the matting system of vaccination introduced during the year. 3,340,098 grains of lymph were manufactured in 1927-28 and this along with the previous year's balance of 235,877 grains and 168,960 grains purchased from the United Provinces Government constituted a total stock of 3,744,935 grains, of which 3,574,274 grains were issued during the year, leaving a balance of 1,706,661 grains in hand on the 1st of April 1928. The supply of lymph has increased by more than 100 per cent. in the course of the last 6 years, from 1,507,487 grains in 1921-22 to 3,574,274 grains in 1927-28. Only glycerinated lymph was issued to the local bodies. All lymph manufactured is stored up in a large Frigidaire cabinet at the Vaccine Depot at a temperature below the freezing point. In view of the intensive campaigns of vaccination already started by practically every local body to meet the apprehended pandemic of 1930-33, a huge reserve supply is required to be maintained which it is impossible for the Vaccine Depot to manufacture due to the paucity of calves available in the market. It is, therefore, absolutely essential to supplement the local production by purchase of an extra quantity of lymph either from other provinces or import it from abroad.

16. **General Remarks.**—It has already been stated that the quinquennial outbreak of small-pox which started in 1924 is still continuing and that a

very severe pandemic of the same disease is apprehended about 1930-33. A widespread protection of the general population by means of intensive campaigns of mass re-vaccination in every part of the province is therefore absolutely necessary before the pandemic actually sets in. Local efforts, however strenuous, are hampered by want of funds. The recurring grant of Rs. 50,000 made by the local Government annually to promote free vaccination is not enough to meet the new situation. A special contribution under the circumstances, therefore, becomes a matter of imperative necessity and should no longer be delayed. Special arrangements should be made to ensure a much larger supply of vaccine lymph than what the Bengal Vaccine Depot can possibly manufacture. Nothing can be more fatal to the success of a campaign than the failure of the

lymph supply at a time when it is essentially wanted by the operators. Supervision is also a matter of vital importance. Unfortunately, the Vaccination Bureau is very much handicapped in having only two Special Inspectors of Vaccination at its disposal for the present. Without four such officers—one for each circle—fully qualified in medicine and public health, it is impossible for the bureau to do justice to the serious responsibilities imposed upon it by the continued presence of small-pox in an epidemic form in the province and the consequent starting of intensive campaign of vaccination in most of the districts.

M. E. SUFI, D.P.H.,

*Assistant Director of Public Health
in charge of Vaccination and
Vital Statistics.*

STATEMENT

Accounting instructions to auditors' general

No.	Description	Balance Sheet		Income Statement		Notes
		1917	1918	1917	1918	
1	Assets					
2	Current Assets					
3	Cash	100.00	100.00			
4	Accounts Receivable	200.00	200.00			
5	Inventory	100.00	100.00			
6	Prepaid Expenses	50.00	50.00			
7	Total	450.00	450.00			
8	Fixed Assets					
9	Land	100.00	100.00			
10	Buildings	200.00	200.00			
11	Equipment	100.00	100.00			
12	Total	400.00	400.00			
13	Liabilities					
14	Current Liabilities					
15	Accounts Payable	100.00	100.00			
16	Notes Payable	50.00	50.00			
17	Total	150.00	150.00			
18	Long-Term Liabilities					
19	Mortgage Payable	250.00	250.00			
20	Total	250.00	250.00			
21	Equity					
22	Paid-up Capital	100.00	100.00			
23	Retained Earnings	100.00	100.00			
24	Total	200.00	200.00			
25	Total	650.00	650.00	650.00	650.00	

Statements.

No.	Description	Balance Sheet		Income Statement		Notes
		1917	1918	1917	1918	
1	Assets					
2	Current Assets					
3	Cash	100.00	100.00			
4	Accounts Receivable	200.00	200.00			
5	Inventory	100.00	100.00			
6	Prepaid Expenses	50.00	50.00			
7	Total	450.00	450.00			
8	Fixed Assets					
9	Land	100.00	100.00			
10	Buildings	200.00	200.00			
11	Equipment	100.00	100.00			
12	Total	400.00	400.00			
13	Liabilities					
14	Current Liabilities					
15	Accounts Payable	100.00	100.00			
16	Notes Payable	50.00	50.00			
17	Total	150.00	150.00			
18	Long-Term Liabilities					
19	Mortgage Payable	250.00	250.00			
20	Total	250.00	250.00			
21	Equity					
22	Paid-up Capital	100.00	100.00			
23	Retained Earnings	100.00	100.00			
24	Total	200.00	200.00			
25	Total	650.00	650.00	650.00	650.00	

STATEMENT

Showing particulars of vaccination performed

Number.	District.	Population of the rural areas of the districts according to the census of 1921.	Average population per square mile.	Average number of vaccinators employed throughout the year.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.	Primary
					Male.	Female.	Total.		
1	2	3	4	5	6	7	8	9	10
<i>Burdwan Division.</i>									
1	Burdwan	1,343,185	500	32	40,455	27,086	68,441	2,139	40,290
2	Asansol Mining Settlement .. .	.. . . .	.. . . .	14	16,653	12,515	29,168	2,083	13,142
3	Birbhum	838,655	479	20	43,829	31,963	75,792	3,789	37,360
4	Bankura	964,487	369	45	42,342	29,670	72,012	1,600	36,694
5	Midnapur	2,595,071	516	115	231,142	151,464	382,606	3,327	143,629
6	Hooghly	900,802	780	38	27,778	16,955	44,733	1,177	19,862
6	Howrah	778,893	1,502	27	25,326	13,886	39,212	1,452	24,626
	Total	7,421,093	540	291	427,525	284,439	711,964	2,446	315,603
<i>Presidency Division.</i>									
7	24 Parganas	1,998,318	527	105	92,031	61,530	153,561	1,462	112,643
8	Nadia	1,390,704	507	46	60,906	36,265	97,171	2,112	45,045
9	Murshidabad	1,182,983	566	69	96,069	62,845	158,914	2,303	55,958
10	Jessore	1,700,924	587	95	48,506	35,480	83,986	884	42,951
11	Khulna	1,421,116	301	48	41,537	34,913	76,450	1,592	52,390
	Total	7,694,045	492	363	339,049	231,033	570,082	1,570	308,987
<i>Rajshahi Division.</i>									
12	Rajshahi	1,457,037	557	49	58,597	40,837	99,434	2,029	40,740
13	Dinajpur	1,687,328	428	72	85,819	52,990	138,809	1,927	83,733
14	Jalpaiguri	921,749	314	31	40,474	22,319	62,793	2,025	29,510
15	Darjeeling	254,045	215	16	9,377	9,064	18,441	1,152	8,566
16	Rangpur	2,482,722	713	60	108,378	55,523	163,901	2,731	93,779
17	Bogra	1,032,300	751	23	44,878	25,096	69,974	3,042	30,574
18	Pabna	1,344,633	809	53	126,460	86,294	212,754	4,014	74,301
19	Malda	955,830	523	65	109,897	74,954	184,851	2,843	27,467
	Total	10,135,644	534	369	583,880	367,077	950,957	2,577	388,670
<i>Dacca Division.</i>									
20	Dacca	2,975,915	1,097	52	93,384	67,713	161,097	3,098	106,214
21	Mymensingh	4,710,669	759	239	243,155	144,155	387,310	1,620	240,839
22	Faridpur	2,202,783	934	40	77,467	51,523	128,990	3,224	64,993
23	Bakarganj	2,563,849	734	45	90,900	59,431	150,331	3,340	126,696
	Total	12,453,216	845	376	504,906	322,822	827,728	2,201	538,742
<i>Chittagong Division.</i>									
24	Chittagong	1,570,760	630	60	74,929	47,983	122,912	2,048	64,542
25	Noakhali	1,465,071	968	39	119,015	63,918	182,933	4,691	78,047
26	Tippura	2,678,627	1,051	79	131,321	91,816	223,137	2,824	121,717
27	Chittagong Hill Tracts	173,243	34	11	5,381	4,353	9,734	884	6,242
	Total	5,887,701	503	189	330,646	208,070	538,716	2,845	270,548
	Total of the Bengal Presidency	43,501,699	578	1,585	2,186,006	1,413,441	3,599,447	2,271	1,822,550

Sum

	Total number of persons vaccinated.		Total number of operations performed.	
	Primary.	Re-vaccination.	Primary.	Re-vaccination.
1.—By staff.				
Under District Boards, Municipalities, Provincial Government, Calcutta Corporation and Asansol Mines Board of Health.	1,903,663	1,958,569	1,906,736	1,961,766
2.—By other agencies.				
Jails, Cantonments, Dispensaries, Railways, Steamers, Tea gardens and Factories.	21,938	85,397	21,938	85,397
Total	1,925,601	2,043,966	1,928,674	2,047,163

No. I. **STATS**

in the districts of Bengal during the year 1927-28.

vaccination.			Re-vaccination.				Percentage of successful cases in which results were known.		Persons successfully vaccinated per 1,000 of population.	Percentage of unknown cases to total cases.		Average annual number of persons successfully vaccinated during the previous five years.		Average annual number of deaths from small-pox during the previous five years.				
Successful.			Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.		Primary.	Re-vaccination.	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.			
Under one year.	One year and under six years.	Total of all ages.							11							12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
3,616	24,228	38,641	183	28,151	10,252	970	95.9	36.4	36.4	.4	3.4	82,773	61.6	851	.6			
5,479	7,314	13,136		16,026	10,363	538	99.9	64.6			3.6							
4,632	27,031	36,247	371	38,432	21,985	2,232	97.02	57.2	69.4	.9	5.8	37,555	44.8	484	.6			
4,626	28,870	36,023	317	35,318	15,403	3,409	98.1	43.6	53.3	.8	9.6	47,708	49.4	248	.2			
13,167	85,637	135,754	4,046	238,977	129,532	34,095	94.5	54.2	102.2	12.7	14.2	125,755	48.4	1,285	.4			
2,801	15,225	19,336	145	24,871	18,880	1,653	97.3	75.9	42.4	.7	6.6	29,409	32.6	482	.5			
4,823	18,127	24,269	198	14,586	6,038	1,834	98.5	41.3	38.9	.8	12.5	28,892	37.9	977	1.2			
39,144	206,432	303,406	5,260	296,361	212,462	44,731	96.1	53.6	69.5	1.6	15.1	352,090	47.4	4,327	.6			
16,958	73,668	107,914	2,100	40,918	22,688	4,053	95.8	55.4	65.3	1.9	9.9	85,623	42.8	1,401	.6			
14,153	27,345	43,355	813	52,126	30,405	6,297	96.2	69.8	57.3	1.8	12.08	56,585	40.7	198	.1			
21,035	28,538	52,216	1,339	102,956	55,319	18,285	93.3	53.7	90.9	2.3	17.7	59,277	50.1	872	.7			
11,421	27,616	42,344	294	41,035	21,705	2,956	98.5	52.8	37.6	.4	7.2	42,710	36.8	205	.1			
11,156	33,617	52,066	131	24,087	14,777	1,907	99.3	61.3	47.03	.2	7.9	59,658	41.9	61	.04			
74,723	190,784	297,895	4,677	261,122	150,894	33,498	96.4	57.7	58.3	1.5	12.8	323,853	42.09	2,737	.3			
18,482	20,633	39,878	600	58,694	43,090	5,489	97.8	73.4	56.9	1.4	9.3	65,614	24.5	93	.06			
17,396	48,259	79,016	1,320	55,076	43,667	3,033	94.1	79.2	72.7	1.5	5.5	82,284	48.7	249	.1			
11,107	12,448	28,022	2	34,478	15,891	1,997	94.9	46.09	47.6	.006	5.7	31,484	34.1	443	.4			
2,973	4,028	8,086	461	9,929	3,799	2,529	94.4	38.2	46.7	5.3	25.4	13,358	52.5	7	.02			
13,204	64,345	87,402	3,580	70,122	50,576	6,060	93.2	72.07	55.5	3.8	8.6	76,006	30.5	465	.1			
3,039	17,588	26,317	2,953	39,400	14,627	8,362	86.07	37.1	39.6	9.6	21.2	32,019	31.01	532	.5			
9,248	53,913	70,465	1,372	138,453	67,284	13,694	94.8	48.5	102.4	1.8	9.8	56,756	42.2	1,012	.7			
13,346	9,581	23,267	3,461	157,384	83,969	40,678	84.7	53.3	112.1	12.6	25.8	49,443	51.7	213	.2			
88,795	229,895	362,453	13,749	563,536	322,903	81,842	93.2	57.2	67.5	3.5	14.5	406,964	40.1	3,014	.3			
8,096	78,535	99,383	3,339	54,883	27,848	8,279	93.6	50.7	42.7	3.1	15.08	115,582	38.9	714	.2			
9,328	140,610	215,345	6,925	146,471	95,050	11,244	89.4	64.8	65.8	2.8	7.6	271,652	57.9	910	.2			
4,618	42,029	63,238	942	63,997	34,257	7,993	97.2	53.5	44.2	1.4	12.4	57,559	25.9	150	.07			
2,068	60,023	118,519	3,830	23,645	13,709	2,885	93.5	57.9	51.5	3.02	12.2	81,372	31.7	65	.02			
24,110	321,197	496,485	15,036	288,996	170,864	30,401	91.9	59.1	53.5	2.6	10.5	525,965	42.2	1,839	.1			
5,171	51,590	62,511	685	58,397	23,592	8,935	96.8	40.4	54.8	1.06	15.3	75,513	48	636	.4			
9,779	48,321	68,675	5,585	104,901	40,332	27,191	87.9	38.4	74.4	7.1	25.9	69,872	47.7	208	.1			
12,395	95,181	118,311	1,344	101,420	70,371	7,604	97.2	69.3	70.4	1.1	7.3	141,478	52.7	235	.08			
545	4,109	6,993	47	3,583	1,173	332	96.1	32.7	41.4	.7	9.2	8,273	48.9	..	..	
27,890	199,201	255,500	7,661	268,291	135,468	43,862	94.4	50.4	66.4	2.8	16.3	295,136	50.1	1,079	.1			
254,662	1,147,509	1,715,739	46,383	1,778,306	992,591	234,334	94.1	55.8	62.1	2.5	13.1	1,904,008	43.6	12,996	.3			

mary.

Percentage of successful cases in which results were known.		Average number of persons vaccinated by each vaccinator.		Number of children successfully vaccinated.		Rates of successful vaccinations per 1,000 of population.	Total cost of department.	Average cost of each successful case.
Primary.	Re-vaccination.	Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One year and under six years.			
94.1	53.2	1,800	2,145	281,238	1,191,160	62.2	4,89,681 9 8	0 2 8
93.2	55.4	No statistics available.		489	850			
94.1	53.3	....	....	281,727	1,192,010	

STATEMENT

Showing the cost of vaccination in the districts of

Number.	Circles and districts.	Superior supervising officers.	Salary.	Indian supervising officers.	Pay.	Paid vaccinators.	Pay.	Licensed vaccinators.	Pay.	Clerks.	Pay.	Peons.	Pay.	Total pay of establishment.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			Rs. A. P.		Rs. A. P.		Rs. A. P.				Rs. A. P.		Rs. A. P.	Rs. A. P.
<i>Burdwan Division.</i>														
1	Burdwan .. ..	..	..	10	3,071 12 0	46	13,833 0 8	..	..	..	..	2	316 15 0	17,221 11 8
2	Birbhum .. ..	..	..	3	1,210 0 0	20	4,036 12 6	..	..	..	..	..	..	5,246 12 6
3	Bankura .. ..	..	..	3	1,220 0 0	45	2,126 0 0	..	..	..	..	..	..	3,346 0 0
4	Midnapur .. ..	..	..	6	1,958 6 0	115	19,249 7 0	..	..	..	..	..	..	21,207 13 0
5	Hooghly .. ..	..	..	4	1,725 0 0	38	5,304 12 8	..	..	..	..	..	..	7,029 12 8
6	Howrah .. ..	..	..	3	2,123 0 0	27	3,822 13 3	..	..	..	..	..	..	5,945 13 3
	Total of the Burdwan Division .. ..	..	..	29	11,308 2 0	291	48,372 14 1	..	..	..	..	2	316 15 0	59,997 15 1
<i>Presidency Division.</i>														
7	24-Parganas .. ..	..	..	7	3,900 0 0	105	10,868 2 0	..	..	..	..	..	..	14,768 2 0
8	Bengal Vaccine Depot .. ..	..	..	8	10,771 13 0	..	..	..	..	2	1,452 0 0	2	372 0 0	12,595 13 0
9	Calcutta .. ..	..	..	17	26,450 0 0	58	42,206 0 0	..	..	..	..	29	5,562 0 0	74,218 0 0
10	Nadja .. ..	..	..	6	2,640 0 0	46	6,437 9 0	..	..	..	..	..	..	9,077 9 0
11	Murshidabad .. ..	..	..	5	1,980 0 0	69	10,973 9 0	..	..	..	..	..	..	12,953 9 0
12	Jessore .. ..	..	..	4	1,822 0 0	95	6,659 6 0	..	..	..	..	..	..	8,481 6 0
13	Khulna .. ..	..	..	4	1,460 0 0	48	2,584 11 0	..	..	..	..	..	..	4,044 11 0
	Total of the Presidency Division .. ..	..	..	51	49,023 13 0	421	79,729 5 0	..	..	2	1,452 0 0	31	5,934 0 0	1,36,139 2 0
<i>Rajshahi Division.</i>														
14	Rajshahi .. ..	..	..	4	1,681 5 0	49	5,130 5 0	..	..	..	..	..	..	6,811 10 0
15	Dinajpur .. ..	..	..	3	1,435 0 0	72	9,820 15 0	..	..	..	..	..	..	11,255 15 0
16	Jalpaiguri .. ..	..	..	*3	1,473 7 0	31	4,608 4 0	..	..	..	..	..	..	6,081 11 0
17	Darjeeling .. ..	..	..	4	1,868 1 0	16	3,243 6 0	..	..	..	..	..	..	5,111 7 0
18	Rangpur .. ..	..	..	5	2,770 0 0	60	7,833 3 6	..	..	..	..	..	..	10,603 3 6
19	Bogra .. ..	..	..	2	935 0 0	23	3,041 0 3	..	..	..	..	..	..	3,976 0 3
20	Pabna .. ..	..	..	3	2,280 10 0	53	10,825 1 0	..	..	..	..	..	..	13,105 11 0
21	Malda .. ..	..	..	2	1,020 0 0	65	7,031 0 9	..	..	..	..	..	..	8,051 0 9
	Total of the Rajshahi Division .. ..	..	..	26	13,463 7 0	369	51,533 3 6	..	..	..	..	..	..	64,996 10 6
<i>Dacca Division.</i>														
22	Dacca .. ..	..	..	5	2,000 0 0	52	5,520 14 2	..	..	..	..	..	..	7,520 14 2
23	Mymensingh .. ..	..	..	6	3,604 8 10	239	26,906 3 0	..	..	..	..	..	..	30,510 11 10
24	Faridpur .. ..	..	..	5	1,980 0 0	40	4,189 3 0	..	..	..	..	..	..	6,169 3 0
25	Bakarganj .. ..	..	..	5	1,811 4 0	45	5,668 13 0	..	..	..	..	..	..	7,480 1 0
	Total of the Dacca Division .. ..	..	..	21	9,395 12 10	376	42,285 1 2	..	..	..	..	..	..	51,680 14 0
<i>Chittagong Division.</i>														
26	Chittagong .. ..	..	..	4	1,503 4 0	60	6,786 13 0	..	..	..	..	..	..	8,290 1 0
27	Noakhali .. ..	..	..	4	1,632 14 0	139	5,058 10 0	..	..	..	..	..	..	6,691 8 0
28	Tippera .. ..	..	..	4	1,635 0 0	79	7,536 4 0	..	..	..	..	..	..	9,171 4 0
29	Chittagong Hill Tracts .. ..	..	..	3	1,706 4 0	11	1,325 1 0	..	..	..	..	..	..	3,031 5 0
	Total of the Chittagong Division .. ..	..	..	15	6,477 6 0	189	20,706 12 0	..	..	..	..	..	..	27,184 2 0
	Total of the Vaccination Circles .. ..	..	..	142	89,668 8 10	1,646	2,42,627 3 9	..	..	2	1,452 0 0	33	6,250 15 0	3,39,998 11 7
30	Vaccination Bureau	1	14,300 0 0	2	4,090 0 0	..	..	..	..	..	..	..	..	18,390 0 0
	Total of the Presidency	1	14,300 0 0	144	93,758 8 10	1,646	2,42,627 3 9	..	..	2	1,452 0 0	33	6,250 15 0	3,58,388 11 7
31	Municipalities .. ..	..	..	5	1,278 0 0	157	29,300 4 2	..	..	..	..	3	515 14 6	31,094 2 8
32	Railways, Tea gardens and Factories .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..
33	Jails .. ..	..	..	..	..	55	..	..	..	..	..	..	..	..
	Grand total	1	14,300 0 0	149	95,036 8 10	1,808	2,71,927 7 11	..	..	2	1,452 0 0	36	6,766 13 6	3,89,482 14 3

* One Sub-Inspector of vaccination was included
† Five head vaccinators were included

No. II.

Bengal during the year 1927-28.

Travelling allowance.	Contingencies.		Total cost	Central revenues.	Provincial revenues.	Local fund.	Municipalities and Railways.	Native States.	Total.	Number of successful vaccination.	Average cost of each successful case.
	Cost of lymph.	Other contingencies.									
16	17	18	19	20	21	22	23	24	25	26	27
Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.		Rs. A. P.
2,989 5 4	..	3,591 8 6	23,802 9 6	..	6,790 3 8	17,012 5 10	..	..	23,802 9 6	72,392 0 5 3	
1,187 2 9	..	248 11 9	6,682 11 0	..	5,051 14 6	1,630 12 6	..	..	6,682 11 0	58,232 0 1 10	
696 4 0	..	159 11 0	4,201 15 0	..	2,716 4 0	1,485 11 0	..	..	4,201 15 0	51,426 0 1 3	
1,733 14 3	..	603 12 9	23,545 8 0	..	3,692 4 3	19,853 3 9	..	..	23,545 8 0	265,286 0 1 5	
1,260 14 0	..	187 15 9	8,478 10 5	..	5,566 11 8	2,911 14 9	..	..	8,478 10 5	38,225 0 3 6	
..	..	313 7 0	6,259 4 3	..	2,123 0 0	4,136 4 3	..	..	6,259 4 3	30,307 0 3 3	
7,867 8 4	..	5,105 2 9	72,970 10 2	..	25,940 6 1	47,030 4 1	..	..	72,970 10 2	515,868 0 2 3	
1,800 14 0	..	1,224 8 6	17,793 8 6	..	6,185 0 0	11,608 8 6	..	..	17,793 8 6	130,692 0 2 2	
259 3 0	5,000	24,506 7 0	42,361 7 0	..	42,361 7 0	..	..	..	42,361 7 0	..	
1,900 0 0	..	12,753 0 0	88,871 0 0	..	..	..	88,871 0 0	..	88,871 0 0	39,754 2 3 9	
2,183 4 0	..	271 1/2 0	11,531 14 0	..	4,866 8 0	6,665 6 0	..	..	11,531 14 0	79,760 0 2 3	
2,278 0 0	..	223 4 0	15,454 13 0	..	7,905 0 0	7,549 13 0	..	..	15,454 13 0	107,535 0 2 3	
1,502 0 0	..	519 13 0	10,503 3 0	..	3,804 0 0	6,699 3 0	..	..	10,503 3 0	64,049 0 2 7	
1,130 7 0	..	123 1 0	5,298 3 0	..	2,648 3 0	2,650 0 0	..	..	5,298 3 0	66,843 0 1 3	
11,053 12 0	5,000	39,621 2 6	1,91,814 0 6	..	67,770 2 0	35,172 14 6	88,871 0 0	..	1,91,814 0 6	488,543 0 6 3	
2,036 0 0	..	1,614 12 0	10,462 6 0	..	5,590 13 0	4,871 9 0	..	..	10,462 6 0	82,968 0 2 2	
784 10 0	..	142 1 0	12,182 10 0	..	2,219 10 0	9,963 0 0	..	..	12,182 10 0	122,683 0 1 7	
1,496 11 0	..	59 7 6	7,637 13 6	..	2,580 12 6	5,057 1 0	..	..	7,637 13 6	43,913 0 2 9	
3,482 3 0	..	67 2 0	8,660 12 0	..	4,090 6 0	4,570 6 0	..	..	8,660 12 0	11,885 0 11 7	
2,037 9 0	..	273 10 6	12,914 7 0	..	7,190 0 0	5,724 7 0	..	..	12,914 7 0	137,978 0 1 5	
857 3 0	..	15 9 0	4,848 12 3	..	1,792 3 0	3,056 9 3	..	..	4,848 12 3	40,944 0 1 10	
407 15 6	..	220 4 6	13,733 15 0	..	2,688 9 6	11,045 5 6	..	..	13,733 15 0	137,749 0 1 7	
750 12 0	..	620 1 9	9,421 14 6	..	2,997 5 3	6,424 9 3	..	..	9,421 14 6	107,236 0 1 3	
11,852 15 6	..	3,013 0 3	79,862 10 3	..	29,149 11 3	50,712 15 0	..	..	79,862 10 3	685,356 0 1 10	
1,174 14 0	..	284 12 0	8,980 8 2	..	4,021 5 0	4,959 3 2	..	..	8,980 8 2	127,231 0 1 1	
1,490 14 0	..	576 8 3	32,578 2 1	..	8,887 12 4	23,690 5 9	..	..	32,578 2 1	310,395 0 1 8	
1,079 2 0	..	310 5 0	7,558 10 0	..	3,061 10 0	4,497 0 0	..	..	7,558 10 0	97,495 0 1 2	
1,595 15 6	..	262 10 0	9,338 10 6	..	3,146 7 6	6,192 3 0	..	..	9,338 10 6	132,228 0 1 1	
5,340 13 6	..	1,434 3 3	58,455 14 9	..	19,117 2 10	39,338 11 11	..	..	58,455 14 9	667,349 0 1 4	
499 15 0	..	268 0 0	9,058 0 0	..	1,590 7	7,467 9 0	..	..	9,058 0 0	86,103 0 1 8	
821 12 0	..	92 3 0	7,605 7 0	..	5,214 11 0	2,390 12 0	..	..	7,605 7 0	109,007 0 1 1	
1,277 7 0	..	357 0 0	10,805 11 0	..	2,881 12 0	7,923 15 0	..	..	10,805 11 0	188,682 0 0 10	
1,291 15 0	..	30 0 0	4,353 4 0	..	4,353 4 0	..	..	..	4,353 4 0	7,176 0 9 8	
3,891 1 0	..	747 3 0	31,822 6 0	..	14,040 2 0	17,782 4 0	..	..	31,822 6 0	390,968 0 1 3	
40,006 2 4	5,000	49,920 11 9	4,34,925 9 8	..	1,56,017 8 2	1,90,037 1 6	88,871 0 0	..	4,34,925 9 8	2,748,084 0 2 6	
3,115 8 6	21,505 8 6	..	21,505 8 6	..	..	..	21,505 8 6	..	
43,121 10 10	5,000	49,920 11 9	4,56,431 2 2	..	1,77,523 0 8	1,90,037 1 6	88,871 0 0	..	4,56,431 2 2	2,748,084 0 2 7	
862 12 0	..	1,293 8 10	33,250 7 6	..	..	..	33,250 7 6	..	33,250 7 6	91,115 0 5 10	
..	53,403	..
..	14,362	..
43,984 6 10	5,000	51,214 4 7	4,89,681 9 8	..	1,77,523 0 8	1,90,037 1 6	1,22,121 7 6	..	4,89,681 9 8	2,906,964 0 2 8	

employed by the District Board.
in this number.

STATEMENT No. III.

Showing particulars of vaccination performed by vaccinators attached to municipalities, dispensaries, and other agencies in the Presidency of Bengal during the year 1927-28.

Number.	Districts.	Number of municipalities, dispensaries, etc., in each district to which a vaccinator is attached.	Number of vaccinators attached to each municipality, dispensary, etc., during the year.	Total number of persons vaccinated.	Average number of persons vaccinated by each vaccinator.	Number of cases primarily vaccinated.					Number of cases re-vaccinated.			Percentage of successful cases in which results were known.		Percentage of unknown cases to total cases.	
						Total.	Successful.			Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
							Under one year.	One year and under six years.	Total of all ages.								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Burdwan ..	6	8	5,683	710	2,481	1,030	1,176	2,441	..	3,202	2,136	60	98.4	66.7	..	1.8
2	Birbhum ..	1	3	1,121	373	181	21	117	169	..	952	465	..	93.3	48.8	..	..
3	Bankura ..	3	3	4,767	1,589	2,492	434	1,701	2,431	..	2,275	264	28	97.5	11.6	..	1.2
4	Midnapur ..	7	10	3,066	306	2,049	458	1,173	1,949	29	5,438	2,645	522	95.1	48.6	1.5	9.6
5	Hooghly ..	10	12	8,513	709	4,820	1,136	3,136	4,492	220	3,693	1,486	1,212	93.2	40.2	4.5	32.8
6	Howrah ..	2	7	9,618	1,374	4,267	1,699	235	4,026	104	5,351	1,224	578	94.3	22.8	2.4	10.7
7	24-Parganas	25	30	20,172	672	13,039	3,334	7,352	12,626	115	7,157	3,424	415	96.8	47.8	..	5.3
8	Calcutta ..	1	58	111,080	1,915	20,993	10,780	8,891	20,000	570	90,087	19,664	18,573	95.6	21.8	2.7	20.6
9	Nadia ..	9	13	5,752	442	2,961	494	2,083	2,919	19	2,791	1,121	979	98.3	40.1	..	3.5
10	Murshidabad	6	7	6,635	947	2,239	665	1,386	2,119	10	4,404	2,020	119	94.6	45.8	..	2.4
11	Jessore ..	3	3	424	141	239	18	198	237	..	194	98	..	93.4	33.5	..	8.8
12	Khulna ..	3	3	1,278	419	680	155	343	542	2	698	234	62	93.3	30.4	..	9.7
13	Rajshahi ..	2	3	3,150	1,050	951	370	485	886	24	2,199	854	383	93.1	38.9	2.5	17.4
14	Dinajpur ..	1	1	2,223	2,223	595	143	338	585	3	1,628	576	259	98.3	35.5	..	15.9
15	Jalpaiguri ..	1	1	751	751	363	146	203	363	..	588	122	23	100	20.7	..	3.9
16	Darjeeling ..	2	2	4,810	2,405	1,129	688	270	1,092	37	3,681	1,155	551	96.7	31.4	3.2	14.9
17	Rangpur ..	2	3	8,845	2,938	1,418	153	997	1,377	4	7,427	4,312	973	97.1	58.2	..	13.1
18	Bogra ..	2	2	1,329	664	284	74	174	265	..	1,045	229	20	93.3	21.9	..	1.9
19	Pabna ..	2	3	4,070	1,356	2,127	707	1,195	2,040	28	1,943	683	156	95.8	35.1	1.3	8.02
20	Malda ..	3	4	3,272	818	1,223	457	668	1,169	10	2,149	884	118	95.5	41.1	..	5.5
21	Dacca ..	2	10	24,308	2,430	8,021	2,069	3,722	6,123	308	16,474	2,419	3,379	76.2	14.6	38.4	20.5
22	Mymensingh	8	8	8,779	1,097	3,448	353	2,312	3,038	265	5,331	1,891	1,300	88.1	35.4	7.6	2.4
23	Faridpur ..	3	2	2,947	1,473	1,722	259	1,186	1,624	24	1,225	119	280	94.3	9.7	1.3	22.8
24	Bakarganj ..	6	7	3,621	517	1,895	336	1,004	1,780	28	1,726	466	375	93.9	26.9	1.4	21.7
25	Chittagong	2	5	10,251	2,050	1,897	274	1,439	1,746	55	8,354	2,671	1,630	92.04	31.9	2.9	19.5
26	Noakhali ..	1	3	2,368	789	771	86	496	679	20	1,597	662	393	88.06	41.4	2.6	24.6
27	Tippera ..	3	3	3,752	1,250	2,001	257	1,371	1,713	78	1,851	524	435	85.6	28.3	3.8	23.5
	Total ..	116	215	262,585	1,221	84,186	26,576	43,651	78,521	1,953	183,460	52,348	32,823	93.2	28.5	2.3	17.8
	Vaccinations performed by—																
	Railways ..	..	..	29,966	..	2,746	489	850	2,398	43	27,220	19,669	369	87.3	72.2	1.5	1.3
	Steamers ..	..	..	2,391	..	..	..	..	..	..	2,391	..	2,391	..	..	..	100
	Tea gardens	..	..	25,523	..	11,566	..	..	11,055	..	13,957	9,388	..	95.5	67.2	..	..
	Factories ..	..	..	16,341	..	7,303	..	..	6,799	..	9,038	4,094	..	93.09	45.2	..	..
	Dispensaries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Jails ..	..	55	33,114	600	323	..	..	203	47	32,791	14,159	4,725	90.9	43.1	21.07	14.4
	Grand total	116	270	369,920	1,369	106,124	27,065	44,501	98,976	2,043	268,857	99,658	40,308	93.3	37.06	1.9	14.9

COMPARATIVE STATEMENT No. IV.

Showing the number of persons primarily vaccinated and the number of those persons who were successfully vaccinated in each of the undermentioned official years.

Establishment.	Persons									
	1918-19.		1919-20.		1920-21.		1921-22.		1922-23.	
	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.
1	2	3	4	5	6	7	8	9	10	11
Government ..	7,261	7,108	5,646	5,581	6,504	6,432	6,489	6,404	6,610	6,516
Municipalities ..	61,729	57,328	114,722	110,026	68,592	66,133	76,194	73,253	79,473	75,966
District Boards ..	287,532	277,372	476,163	462,171	602,879	581,886	796,737	770,282	1,285,340	1,232,857
Dispensaries, Railways, Tea gardens, Factories and Jails ..	6,419	5,973	13,893	12,590	7,892	7,451	5,793	5,294	7,038	6,017
Work done by Licensed vaccinators ..	923,479	917,348	1,031,925	1,006,245	728,570	708,862	378,464	367,079	144,210	140,775
Total ..	1,286,420	1,265,129	1,641,449	1,596,613	1,414,437	1,370,764	1,203,677	1,222,312	1,522,701	1,462,131

primarily vaccinated.

Establishment.	1923-24.		1924-25.		1925-26.		1926-27.		1927-28.	
	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.
	12	13	14	15	16	17	18	19	20	21
Government ..	5,890	5,781	7,337	7,273	8,675	8,639	6,810	6,749	6,151	6,003
Municipalities ..	78,402	74,734	102,119	97,918	91,550	86,961	96,813	90,248	82,512	78,521
District Boards ..	1,486,827	1,430,198	1,529,956	1,477,762	1,599,810	1,543,133	1,621,173	1,546,628	1,815,000	1,709,736
Dispensaries, Railways, Tea gardens, Factories and Jails ..	13,573	12,220	13,908	12,947	19,756	18,016	15,513	14,032	21,938	20,455
Work done by Licensed vaccinators ..	3,053	2,570	....	....	29,529	28,827	..	..	..	..
Total ..	1,587,745	1,525,503	1,653,320	1,595,000	1,749,320	1,685,516	1,740,309	1,657,657	1,925,601	1,814,715

STATEMENT No. VI.

Showing, side by side, the ratios per mille of population of deaths from small-pox and the number of successful vaccinations during the ten years ending, 1927-28.

District.	1918-19.		1919-20.		1920-21.		1921-22.		1922-23.		1923-24.		1924-25.		1925-26.		1926-27.		1927-28.		
	Ratio of deaths from small-pox.	Number of successful vacci- nations.	Ratio of deaths from small-pox.	Number of successful vacci- nations.	Ratio of deaths from small-pox.	Number of successful vacci- nations.	Ratio of deaths from small-pox.	Number of successful vacci- nations.	Ratio of deaths from small-pox.	Number of successful vacci- nations.	Ratio of deaths from small-pox.	Number of successful vacci- nations.	Ratio of deaths from small-pox.	Number of successful vacci- nations.	Ratio of deaths from small-pox.	Number of successful vacci- nations.	Ratio of deaths from small-pox.	Number of successful vacci- nations.	Ratio of deaths from small-pox.	Number of successful vacci- nations.	
Burdwan	.17	51,101	.45	110,575	.34	83,234	.08	77,293	.07	61,625	.09	70,268	.52	92,481	1.00	111,733	1.2	95,777	.72	77,742	
Birbhum	.07	17,947	.34	33,109	.44	27,146	.05	11,370	.07	20,915	.03	22,776	.11	45,498	1.00	11,778	1.6	62,175	1.20	59,195	
Bankura	.06	20,640	.21	51,345	.15	45,093	.01	48,368	.05	49,218	.03	44,891	.18	46,361	.55	61,562	.96	52,115	1.25	54,272	
Midnapur	.10	84,727	.57	116,348	.37	108,408	.21	96,661	.33	128,029	.09	112,368	.17	121,297	.59	143,575	1.96	145,873	1.70	271,878	
Hooghly	.13	26,623	1.18	50,363	.56	43,666	.07	34,270	.09	33,912	.06	30,468	.30	41,717	.95	41,794	1.73	47,753	1.85	53,009	
Howrah	.54	27,650	1.48	42,839	.65	26,585	.29	29,635	.24	24,526	.06	30,426	.63	41,989	2.00	42,875	1.3	47,550	1.53	53,009	
24-Parganas	.25	95,126	.82	111,202	.46	81,634	.08	72,708	.12	90,323	.11	90,751	.70	106,916	1.76	127,181	1.0	105,185	1.88	149,861	
Calcutta	.99	35,294	4.39	114,070	.55	81,634	.34	42,695	.35	28,617	.06	20,251	.24	106,242	1.76	56,042	2.2	77,359	1.08	39,754	
Nadia	.13	37,235	.96	71,572	.38	46,325	.04	46,020	.05	58,850	.02	50,646	.05	61,166	2.20	68,619	3.2	77,359	1.08	39,754	
Murshidabad	.01	29,308	.33	40,410	.88	40,484	.40	34,568	.16	43,769	.04	45,464	.03	46,712	.75	77,366	2.4	103,853	2.35	112,189	
Jessore	.07	48,619	.20	78,865	.36	71,919	.09	63,118	.04	63,118	.01	53,295	.05	66,292	.20	66,033	.27	65,153	.22	64,401	
Khulna	.02	46,342	.10	63,547	.08	56,202	.09	61,592	.04	63,547	.07	59,529	.03	71,232	.05	63,337	.10	59,659	.08	68,148	
Buxarhi	.07	50,333	.09	114,796	.74	115,823	.28	82,359	.04	63,448	.07	52,187	.04	72,171	.04	73,334	.11	84,563	.21	85,102	
Jalpaiguri	.23	24,720	.81	111,411	.89	75,518	.28	82,359	.05	82,457	.008	75,006	.04	71,440	.22	80,749	.40	97,809	.03	124,230	
Darjeeling	.05	33,955	.48	42,083	.65	34,190	.44	24,962	1.36	34,671	.51	31,602	.28	31,602	.02	33,602	.17	31,535	.07	44,886	
Bagurip	.03	13,309	.76	187,426	.07	19,662	.00	15,935	.09	16,763	.01	16,329	.04	13,569	.07	23,828	.02	14,728	.07	14,142	
Keoga	.37	31,507	1.67	49,937	.83	37,303	.05	25,169	.003	22,621	.02	33,876	.41	31,746	.55	34,791	1.5	40,684	1.04	143,808	
Palna	1.40	59,471	1.84	91,317	.98	49,966	.12	27,819	.02	45,745	.01	28,308	.04	44,559	.48	54,870	3.09	117,116	2.58	140,844	
Malda	.21	59,471	.80	49,966	.83	49,966	.12	27,819	.02	45,745	.01	28,308	.04	44,559	.48	54,870	3.09	117,116	2.58	140,844	
Dacca	.14	82,950	.17	167,421	.82	132,929	.33	97,044	.29	97,044	.22	101,516	.18	57,821	.19	52,534	.57	61,239	1.55	109,382	
Mymensingh	.13	132,460	.52	213,822	.52	230,908	.33	153,123	.29	203,223	.10	251,904	.17	127,386	.24	140,455	.21	147,745	.84	137,186	
Faridpur	.07	62,794	.77	303,698	.47	109,807	.06	59,360	.07	41,167	.03	50,694	.03	50,694	1.08	73,338	.32	320,817	.68	316,350	
Bakerganj	.01	144,533	.19	56,912	.13	138,691	.01	54,751	.06	58,374	.04	69,413	.02	93,222	.03	98,943	.05	104,265	.44	99,775	
Chittagong	.01	40,918	.10	69,694	.10	69,694	.37	59,571	.53	65,560	.07	63,255	.27	69,327	.31	88,071	.30	70,469	1.01	90,329	
Noakhali	.07	43,657	.34	69,473	.34	69,473	.02	44,168	.09	49,711	.03	63,255	.66	69,327	.24	89,563	.27	83,583	.49	110,503	
Tippura	.19	90,447	.47	132,940	.08	132,940	.08	138,223	.04	147,535	.02	156,042	.02	138,223	.10	144,795	.23	158,916	41	191,211	
Chittagong Hill Tracts	Not under registration.	8,075	Not under registration.	8,650	Not under registration.	8,550	Not under registration.	7,731	Not under registration.	8,322	Not under registration.	6,790	Not under registration.	8,309	Not under registration.	10,099	Not under registration.	7,656	Not under registration.	41	7,176
Dispensary, Railway, Tea Garden, and Factory Vaccination.	..	15,726	..	30,646	..	8,752	..	9,366	..	8,548	..	39,681	..	39,438	..	37,127	..	32,032	..	53,403	
Total	.26	1,556,099	.90	2,636,859	.48	2,006,692	.14	1,516,502	.16	1,738,386	.08	1,790,927	.22	2,096,383	.4	2,395,739	.68	2,458,290	.85	2,066,904	

STATEMENT No. VII.

Showing the protection afforded to infants in each town in the Presidency of Bengal during the year 1927-28.

District.	Town.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending 31st March 1928.	Date of extension of Vaccination Act to town.
1	2	3	4	5	6
Burdwan ..	Burdwan ..	298	22	112	1st July 1883.
	Kalna ..	205	59	141	1st " "
	Katwa ..	51	10	111	1st " "
	Dainhat ..	41	11	129	1st " "
	Raniganj ..	317	45	200	1st " "
	Asansol ..	322	43	337	14th September 1910.
	Total ..	1,234	190	1,030	
Birbhum ..	Suri ..	56	8	21	1st July 1881.
Bankura ..	Bankura ..	370	47	296	1st July 1883.
	Vishnupur ..	379	68	36	1st " "
	Sonamukhi ..	283	44	102	6th June 1892.
	Total ..	1,032	159	434	
Midnapur ..	Midnapur ..	489	38	384	1st July 1883.
	Ghatal ..	316	25	16	1st " "
	Kharar ..	107	14	3	16th August 1889.
	Chandrakona ..	146	19	3	1st July 1883.
	Ramjibanpur ..	149	23	10	1st " "
	Khirpai ..	75	7	15	1st " "
	Tamluk ..	150	15	27	1st " "
	Total ..	1,432	141	458	
Hooghly ..	Hooghly-Chinsura	738	227	274	1st September 1881.
	Bansberia ..	88	34	8	1st July 1883.
	Arambagh ..	155	32	30	11th February 1889.
	Serampur ..	606	75	333	1st March 1883.
	Uttarpara ..	180	16	15	1st April " "
	Kotrung ..	117	24	6	1st July " "
	Baidyabati ..	377	83	180	1st " "
	Bhadreswar ..	308	56	211	1st " "
	Rishra-Konnagar ..	254	52	46	(It formerly formed a part of the Serampur Municipality.)
	Champdani ..	260	38	33	(It formerly formed a part of the Baidyabati and Bhadreswar Municipalities.)
	Total ..	3,083	637	1,136	
Howrah ..	Howrah ..	4,156	1,367	1,626	1st April 1882.
	Bally ..	332	54	73	1st October 1884.
	Total ..	4,488	1,421	1,699	
24-Parganas	Total of the Burdwan Division.	11,325	2,556	4,778	
	South Suburban ..	722	168	599	1st October 1883.
	Tollyganj ..	344	79	416	1st " " (It formerly formed a part of the South Suburban Municipality.)

District.	Town.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending 31st March 1928.	Date of extension of Vaccination Act to town.
1	2	3	4	5	6
24-Parganas— concluded.	Budge-Budge ..	194	12	132	18th February 1902.
	Baranagar ..	646	128	232	1st October 1883.
	Kamarhati ..	383	43	174	1st " " (It formerly formed a part of the Baranagar Municipality.)
	Rajpur ..	238	33	35	1st October 1883.
	Baruipur ..	61	4	56	1st " "
	Jaynagar ..	67	14	13	1st " "
	North Dum-Dum ..	95	23	1	1st " "
	South Dum-Dum ..	301	47	99	1st " "
	Khardah ..	72	11	12	1st " "
	Barrackpur including Barrackpur Cantonment.	160	18	47	(They formerly formed parts of the South Barrackpur Municipality.)
	Panihati ..	273	58	31	
	North Barrackpur ..	296	55	117	1st October 1883.
	Titagarh ..	704	122	304	1st " " (It formerly formed a part of the South Barrackpur Municipality.)
	Garulia ..	180	27	54	1st October 1883. (It formerly formed a part of the North Barrackpur Municipality.)
	Naihati ..	326	57	141	1st October 1883.
	Halisahar ..	134	32	1	1st " "
	Kanchrapara ..	205	8	..	(They formerly formed parts of the Naihati Municipality.)
	Bhatpara ..	1,215	147	349	
	Barasat ..	96	13	5	1st October 1893.
	Gobardanga ..	31	1	3	1st " "
Basirhat ..	473	61	317	1st " "	
Baduria ..	138	17	148	1st " "	
Taki ..	171	34	48	1st " "	
	Total ..	7,525	1,212	3,334	
Calcutta ..	Calcutta ..	18,327	5,747	10,780	1880.
Nadia ..	Krishnagar ..	263	38	48	1st October 1883.
	Nabadwip ..	256	56	71	1st " "
	Ranaghat ..	207	32	116	1st " "
	Birnagar ..	75	18	45	1st " "
	Santipur ..	582	90	24	1st " "
	Chakdaha ..	73	11	39	28th January 1887.
	Kushtia ..	79	11	25	1st October 1883.
	Kumarkhali ..	56	10	80	1st " "
Meherpur ..	84	12	46	1st " "	
	Total ..	1,675	278	494	

District.	Town.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending 31st March 1928.	Date of extension of Vaccination Act to town.
1	2	3	4	5	6
Murshidabad	Berhampur ..	510	122	71	1st October 1883.
	Murshidabad ..	222	52	23	1st " "
	Jiaganj-Azimganj ..	229	45	139	1st " "
					(It formerly formed a part of the Murshidabad Municipality.)
	Kandi ..	148	48	151	1st October 1883.
	Jangipur ..	280	14	100	1st " "
	Dhulian ..	271	31	181	26th June 1910.
	Total ..	1,660	312	665	
Jessore	Jessore ..	136	7	16	1st October 1883.
	Kotchandpur ..	67	19	2	1st February 1884.
	Maheshpur ..	47	9	..	1st October 1883.
	Total ..	250	35	18	
Khulna	Khulna ..	173	22	23	1st July 1887.
	Satkhira ..	236	48	80	7th July 1883.
	Debhatta ..	43	6	52	1st October 1883.
	Total ..	452	76	155	
	Total of the Presidency Division.	29,889	7,660	15,446	
Rajshahi	Rajshahi ..	549	74	357	1st June 1881.
	Nator ..	114	22	13	1st January 1881.
	Total ..	663	96	370	
Dinajpur	Dinajpur ..	165	19	143	1st January 1887.
Jalpaiguri	Jalpaiguri ..	178	11	146	1st January 1887.
Darjeeling	Darjeeling ..	593	49	382	1st September 1884.
	Kurseong ..	247	35	306	1st January 1887.
	Total ..	840	84	688	
Rangpur	Rangpur ..	244	24	148	1st July 1881.
	Gaibandha ..	51	3	5	20th November 1924.
	Total ..	295	27	153	
Bogra	Bogra ..	96	10	72	1st January 1882.
	Sherpur ..	64	9	2	1st October 1884.
	Total ..	160	19	74	
Pabna	Pabna ..	255	48	138	1st February 1882.
	Sirajganj ..	421	75	569	1st January 1887.
	Total ..	676	123	707	

District	Town.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending 31st March 1928.	Date of extension of Vaccination Act to town.
1	2	3	4	5	6
Malda ..	English Bazar ..	311	30	301	1st March 1883.
	Malda ..	54	15	33	1st April 1887.
	Nawabganj ..	437	54	123	12th May 1904.
	Total ..	802	99	457	
Total of the Rajshahi Division.		3,779	478	2,738	
Dacca ..	Dacca ..	4,255	882	1,951	1st July 1887.
	Narayanganj ..	1,002	231	118	1st
	Total ..	5,257	1,113	2,069	
Mymensingh ..	Mymensingh ..	372	78	31	1st October 1887.
	Muktagacha ..	99	17	5	1st
	Netrokona ..	195	54	63	20th January 1890.
	Jamalpur ..	583	68	42	1st October 1887.
	Sherpur ..	468	63	41	1st
	Kishorganj ..	211	52	87	1st
	Bajitpur ..	138	14	15	1st
	Tangail ..	341	42	69	19th February 1890.
Total ..	2,407	388	353		
Faridpur ..	Faridpur ..	207	45	98	1st October 1887.
	Madaripur ..	545	78	85	1st
	Rajbari ..	175	32	56	20th November 1924.
Total ..	927	155	239		
Bakarganj ..	Barisal ..	297	101	30	1st October 1887.
	Jhalakati ..	35	7	..	1st
	Nalchiti ..	21	4	..	1st
	Pirojpur ..	230	39	303	1st January 1890.
	Patuakhali ..	81	12	2	25th January 1891.
	Bhola ..	17	1	1	8th November 1922.
Total ..	681	164	336		
Total of the Dacca Division.		9,272	1,820	2,997	
Chittagong ..	Chittagong ..	821	184	193	1st April 1887.
	Cox's Bazar ..	71	13	81	14th November 1892.
	Total ..	892	197	274	
Tippera	Comilla ..	230	18	44	1st April 1887.
	Brahmanbaria ..	658	91	133	1st
	Chandpur ..	176	26	80	22nd July 1898.
Total ..	1,064	135	257		
Noakhali ..	Noakhali ..	91	20	86	1st April 1887.
	Total of the Chittagong Division.	2,047	352	617	
	Total for the Presidency.	56,312	12,866	26,576	

PROVINCIAL STATEMENT A.

Showing the degree of protection afforded to infants during the year 1927-28.

District.	Rural population among which vaccinations were performed.	Number of births during the year.	Mortality among infants under one year.	Surviving population under one year available for vaccination.	Number successfully vaccinated.	Proportion of persons successfully vaccinated per 1,000 of population as shown in column 5.	Proportion of persons successfully vaccinated per 1,000 of population during 1926-27.
1	2	3	4	5	6	7	8
Murshidabad	1,182,983	49,086	8,438	40,648	21,035	517.4	392.5
Rajshahi	1,457,037	47,650	9,709	37,941	18,482	487.1	654.2
Malda	955,830	32,084	4,439	27,645	13,246	479.1	787.5
Jalpaiguri	921,749	31,648	5,181	26,467	11,107	419.6	312.1
24-Parganas	1,998,318	48,885	7,253	41,632	16,958	407.3	173.4
Darjeeling	254,045	8,522	1,175	7,347	2,973	404.6	602.1
Nadia	1,390,704	45,360	8,895	36,465	14,153	388.1	397.3
Khulna	1,421,116	37,646	8,098	29,548	11,156	377.5	352.03
Dinajpur	1,687,328	61,632	12,595	49,037	17,396	355.7	353.9
Jessore	1,700,924	41,365	7,182	34,183	11,421	334.1	172.8
Pabna	1,344,633	34,932	6,523	28,409	9,248	325.5	309.7
Howrah	778,893	20,770	3,596	17,174	4,823	280.8	244.5
Noakhali	1,465,071	46,559	6,705	39,854	9,779	245.3	226.1
Tippera	2,678,627	59,684	7,800	51,884	12,395	238.8	232.3
Burdwan	1,343,185	49,194	9,860	39,334	9,095	231.2	274.8
Midnapur	2,595,071	68,491	10,817	57,674	13,167	228.3	148.8
Rangpur	2,482,722	73,865	12,834	61,031	13,204	216.3	227.1
Bankura	964,487	29,657	5,691	23,966	4,626	193.02	229.6
Birbhum	838,655	30,763	6,199	24,564	4,632	188.5	208.02
Hooghly	900,802	21,460	3,656	17,804	2,801	157.3	223.5
Chittagong	1,570,760	42,964	6,276	36,688	5,171	140.9	173.5
Chittagong Hill Tracts ..	173,243	4,798	854	3,944	545	138.1	318.4
Bogra	1,032,300	27,151	4,988	22,163	3,039	137.1	77.3
Dacca	2,975,915	81,328	11,339	69,989	8,096	115.3	168.07
Mymensingh	4,710,669	117,727	20,223	97,504	9,328	95.6	100.9
Faridpur	2,202,783	72,455	13,248	59,207	4,618	77.9	125.4
Bakarganj	2,563,849	62,861	12,743	50,118	2,068	41.2	33.4
Total of the Rural Circles	43,591,699	1,248,537	216,317	1,032,220	2,54,662	246.7	249.7
Calcutta	1,077,264	18,327	5,747	12,580	10,780	856.8	1,664.7
Mufassal Municipalities	2,026,573	37,985	7,119	30,866	15,793	511.7	589.2
GRAND TOTAL	46,695,536	1,301,849	229,183	1,075,666	281,238	261.4	273.4

PROVINCIAL STATEMENT B
Showing different kinds of lymph used and the percentage of success during the year 1927-28.

No.	District.	Primary vaccination.										Re-vaccination.																									
		Direct from calf.					With lanoline lymph.					With glycerinated lymph.					Direct from calf.					With lanoline lymph.					With glycerinated lymph.										
		Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.						
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32						
1	Burdwan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Birbhum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	Bankura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4	Bidhanpur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	Boghoaly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6	Howrah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7	24-Parganas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8	Calcutta	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9	Nadia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10	Murshidabad	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11	Jessore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12	Khulna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13	Rajshahi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14	Dinajpur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15	Jalpaiguri	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16	Darjeeling	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17	Rangpur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18	Bogra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19	Palona	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20	Madda	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21	Dacca	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22	Mymensingh	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23	Faridpur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24	Bakarganj	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25	Chittagong	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
26	Noakhali	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
27	Tippura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
28	Chittagong Hill Tracts	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
29	Railways	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
30	Steamers	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
31	Factories	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
32	Tea gardens	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
33	Dispensaries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total for the Presidency	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total for the Province	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	2,047,163	1,092,249	680,272	274,642	53.3

B. G. Press—6-3-1929—1682M—402—J. A.

Item	Description	Quantity	Unit	Value	Remarks
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

Statement of ...

STATEMENT B

GOVERNMENT OF BENGAL.

Local Self-Government Department.

Public Health.

DARJEELING, THE 27TH MAY 1929.

RESOLUTION—NO. 87 T.—P. H.

READ—

The report of the Director of Public Health, the Sanitary Board and the Chief Engineer, Public Health Department, for the year 1927.

READ ALSO—

The annual report on Vaccination in Bengal with the Statistical returns for the year 1927-28.

1. **Public Health.**—(Statistical, Epidemiological and General Public Health Administration).

Population.—For the purpose of this review the total population of Bengal, excluding the Chittagong Hill Tracts, is taken as 46,522,293 (1921 Census).

2. **Birth-rate and death-rate.**—The central feature in the report on public health for the year 1927 is that, notwithstanding higher mortality than usual from cholera and small-pox, the population of Bengal continued to increase, though naturally not quite to the same extent as in the previous year. The total number of births recorded rose from 1,276,380 in the preceding year to 1,286,863 and that of deaths from 1,151,197 to 1,189,370. The provincial birth-rate in 1927 was 27·7 per thousand as against 27·4 per thousand in 1926, showing an increase of 1·1 per cent. over that of the previous year and a decrease of 3·8 per cent. on the quinquennial average of 28·8 per thousand. The provincial death-rate in 1927 was 25·6 per thousand against 24·7 per thousand in 1926 with an increase of 3·6 per cent. over that year and of 1·6 per cent. over the average for the quinquennium. These figures and percentages must of course in the still somewhat primitive state of vital statistics in rural areas be taken rather as a relative index than a complete and accurate record. The Director of Public Health remarks—

“Allowing for a probable omission of 27 per cent. in the registration of births and deaths, the actual birth and death rates of the province may be assumed to be 35·17 and 32·51 respectively.”

A beginning was made during the year 1927 with the transfer of the responsibility for collecting vital statistics to Union Boards, a function for which provision is made in the Village Self-Government Act, but which they have been on the whole somewhat reluctant to assume. The effect of the new system on the accuracy of the returns will need careful observation by the public health authorities.

Infant mortality.—In 1927, 229,078 infants died under the age of one year, as compared with 251,184 during the previous year, the decrease in the reported rate of infantile mortality being 9·6 per cent.

Extremely interesting results have been obtained in Calcutta and Dacca by special attention to midwifery and the care of infant life. In Calcutta there were five units at work staffed by 5 Lady Health Visitors and 18 midwives. In 4,748 cases attended by them the death-rate during the first ten days of infancy was only 35.5 per thousand as against the average for the city of 104.8 per thousand, while only 13 cases proved fatal to the parent. Two maternity centres working in the town of Dacca, and dealing with slightly over a thousand cases reported mortality during the first ten days of infancy of only 22 per thousand as against recorded mortality of 96 per thousand in the rest of the town. These figures go to show what can be accomplished by the proper care of mothers and infants.

During the year under review grants-in-aid were made to various local bodies for starting 100 classes of 10 *dais* each. In all 1,170 *dais* received training in 104 classes started by 49 local bodies and one health society. Public interest in maternity work and infant welfare was maintained and 67 health exhibitions and Baby Week functions were held during the year.

Cholera.—The mortality from cholera was 118,377 in 1927 as compared with 59,106 in 1926, showing an increase of 92.3 per cent. above that year and also above the decennial average. The measures taken to cope with epidemics included inoculation, disinfection of water-supplies, disinfection of infected houses and of the patients' clothes and supply of bleaching powder. Twenty medical officers and a temporary epidemic staff of 20 Sub-Assistant Surgeons and 100 Sanitary Inspectors were deputed to help local bodies in suppressing outbreaks. The publicity work carried on by the Publicity Branch of the Public Health Department by means of lectures and magic lantern demonstrations and free distribution of posters and leaflets on the prevention of cholera has gone far to show the public how far cholera may be regarded as a preventable disease. Local bodies concerned kept special watch over pilgrims for the Puri Rathjatra and the Ganga Sagar Mela with a view to detecting suspected cases.

The cholera epidemic of the year 1927 gave the first impetus to the mass vaccination for cholera which made such remarkable strides. In 1927 1,299,630 cubic centimetres of cholera vaccine were issued as against 256,000 in 1926, while the number of inoculations reported jumped to 781,872 from 57,395 in the previous year.

Small-pox.—The mortality from small-pox was also distinctly above the average, 42,514 deaths being reported as against 25,548 in the previous year. The epidemic was attended with an increase of over 20 per cent. in activity in vaccination and nearly four million adults and children were vaccinated during the year. More than half of the precise total of 3,975,837 were revaccinations, but the number of primary vaccinations 1,928,674 was well above the total number of births reported. Protection is obviously increasing so long as more persons are vaccinated for the first time than are born in the year, but the actual percentage of successful vaccinations among the infants of 1927 was only 26.1 and slightly less than that of 1926.

Fever.—The high proportion of deaths attributed every year to the non-descript head of "Fever" is a natural consequence of the unscientific agencies on which the province relies at present for the greater part of its vital statistics. The actual figures reported under this head were 789,006, approximately two-thirds of the total mortality of the year, as against 822,774 in 1926.

Kala-azar.—The kala-azar statistics show curious results. With the exception of a peak in 1925 the number of cases treated at dispensaries and centres has risen continuously from 139,085 in 1924 to 180,074 in 1927, whereas the deaths reported in the latter year were only 11,855 as against 14,275 in 1926. There certainly seem grounds for hope that the increase in treatments along with the decrease in mortality may imply that the scientific and organised counter measures of recent years are making headway against the scourge. Certainly, if over-confidence would be premature, expenditure under this head has not been wasted.

Rural public health organisation.—The year 1927 witnessed the beginning on a small scale of a movement which may have far-reaching effects in remodelling public health organisation in the districts in future years. This is the system of founding public health circles corresponding in area to a thana, to each of which is attached an officer specially trained in public health work. Towards the cost of such centres Government contribute the actual expenses up to Rs. 2,000 for each unit per annum. With the assistance of Public Health Committees for the thanas it is not difficult to foresee how such centres may on the one hand facilitate the decentralisation of public health work from District Board headquarters and on the other hand link up the efforts of individual Union Boards for the improvement of public health in the thana as a whole. Among other advantages they should ultimately afford a medium for the better control and inspection of vaccination. These new public health circles were first brought into existence in August 1927 and 258 had been established by the end of March 1928.

Public Health Department, Engineering Branch.—In time of financial stringency lump grants for expenditure in the province as a whole are more easily justified than specific provision for works of sanitary engineering for the benefit of one town or another, and for this reason the public health engineer feels the pinch more acutely than the medical and scientific branch of the public health establishment. There were actually in progress, however, in 1927 under the Chief Engineer ten schemes of water-supply and drainage in various stages, while eight other schemes were completed during the year; and the work of preparing further schemes for provision in later years went on so far as there was any practical possibility of their realisation.

Dr. C. A. Bentley who had recently returned from leave to resume his old post was Director of Public Health, and Mr. F. C. Griffin took charge early in the year as Chief Engineer of the Public Health Department. Government appreciate in the former officer the enthusiasm and experience which have so long marked his tenure of office and in the latter the technical enterprise and departmental efficiency which he brings to his new charge.

By order of the Governor in Council,

C. W. GURNER,

Secretary to the Government of Bengal (offg).

Nos. 1606-1616 P. H.

Copy of the resolution [with copies of the reports] forwarded to (1) all Commissioners of Divisions for information and communication to all District Officers, and all Chairmen of District Boards in their respective divisions, (2) the Surgeon-General with the Government of Bengal, the Inspector-General of Prisons and the Inspector-General of Police, Bengal, for information, (3) the Director of Public Health, Bengal, the Chief Engineer, Public Health Department and the Secretary to the Sanitary Board, Bengal, for information.

[] For (1) and (2) only.

By order of the Governor in Council,

A. Z. KHAN,

Assistant Secretary to the Government of Bengal.

Public Health Department - The year 1917 witnessed the beginning of a new era in the history of the health department. This was due to the fact that the health department was reorganized and placed under the direct control of the Mayor. This reorganization was the result of a long and arduous struggle which began in 1914. At that time the health department was a mere advisory body and had no real authority. It was only in 1917 that it became a real department with a real budget and a real staff. This was a great step forward and it marked the beginning of a new era in the history of the health department. The health department was now able to carry out its duties in a more effective and efficient manner. It was now able to coordinate the various health activities and to plan for the future. This was a great achievement and it was the result of the efforts of the health department and its friends.

Public Health Department - In the year 1917 the health department was reorganized and placed under the direct control of the Mayor. This was a great step forward and it marked the beginning of a new era in the history of the health department. The health department was now able to carry out its duties in a more effective and efficient manner. It was now able to coordinate the various health activities and to plan for the future. This was a great achievement and it was the result of the efforts of the health department and its friends.

Public Health Department - In the year 1917 the health department was reorganized and placed under the direct control of the Mayor. This was a great step forward and it marked the beginning of a new era in the history of the health department.

Public Health Department - In the year 1917 the health department was reorganized and placed under the direct control of the Mayor. This was a great step forward and it marked the beginning of a new era in the history of the health department.

Public Health Department - In the year 1917 the health department was reorganized and placed under the direct control of the Mayor. This was a great step forward and it marked the beginning of a new era in the history of the health department.

Public Health Department - In the year 1917 the health department was reorganized and placed under the direct control of the Mayor. This was a great step forward and it marked the beginning of a new era in the history of the health department.

Public Health Department - In the year 1917 the health department was reorganized and placed under the direct control of the Mayor. This was a great step forward and it marked the beginning of a new era in the history of the health department.

GOVERNMENT OF BENGAL.

Local Self-Government Department.

Public Health.

No. 1617 P.H.

FROM C. W. GURNER, ESQ., I.C.S.,
Secretary to the Government of Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF INDIA,
DEPARTMENT OF EDUCATION, HEALTH AND LANDS.

Calcutta, the 29th May, 1929.

Annual Public Health Report for 1927.

SIR,

I am directed to submit for the information of the Government of India copies of the reports noted below, together with a copy of the resolution recorded thereon:—

- (1) Report of the Public Health Department for 1927.
- (2) Annual Report on Vaccination in Bengal for 1927-28.

I have the honour to be,

SIR,

Your most obedient servant,

C. W. GURNER,
Secretary to the Government of Bengal.

GOVERNMENT OF BENGAL

Local Self-Government Department

Public Health

XXXXXX

From Mr. W. BURNETT

Secretary to the Government of Bengal

To the SECRETARY to the GOVERNMENT OF INDIA

Department of Education, Health and Labour

Calcutta, the 25th May 1924

My dear Sir,

Sir

I am directed to submit for the information of the Government of India the enclosed reports, together with a copy of the resolution which thereon.

- (1) Report on the Public Health Department for 1923
- (2) Statement on Vaccination in Bengal for 1923

I have the honor to be,

Sir,

Very truly yours,

C. W. CURRIE

Secretary to the Government of Bengal

