

**Annual vaccination returns of the Province of Assam : with brief explanatory notes.**

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# ANNUAL VACCINATION RETURNS

OF THE

## PROVINCE OF ASSAM

FOR

1924-25.

NOTES ON VACCINATION

BY

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OFFICIATING DIRECTOR OF PUBLIC HEALTH, ASSAM.



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FROM

MAJOR J. B. HANAFIN, C.I.E., F.R.C.S.I., D.P.H. D.T.M.&H. (CAMB.), I.M.S.,  
OFFICIATING DIRECTOR OF PUBLIC HEALTH, ASSAM,

TO

THE SECOND SECRETARY TO THE GOVERNMENT OF ASSAM.

*Dated Shillong, the 25th June 1925.*

SIR,

I HAVE the honour to submit herewith the Annual Vaccination Returns of the Province of Assam for the year 1924-25, with brief explanatory notes.

Your obedient Servant,

J. B. HANAFIN, *Major, I.M.S.,*

*Offg. Director of Public Health, Assam.*

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[Prescribed maximum length—3 pages.]

NOTES ON VACCINATION IN ASSAM FOR THE YEAR 1924-25.

1. *Introductory.*—The charge of the Department was held throughout the year by Major T. D. Murison, D.P.H., I.M.S., and the post of the Assistant Director of Public Health was held by Dr. P. Gupta, D.P.H., from 15th August 1924 to the end of the year.

2. *Vaccination agencies.*—As usual, the vaccination work in the plains districts was carried out by vaccinators paid by Local Boards and Municipalities, and in the hills by vaccinators paid by Government. The total number of vaccinators employed during the year was 432, as compared with 425 in the previous year. There were four additional vaccinators in each of the districts of Kamrup and Nowgong, two in Sylhet and one each in Sibsagar and Lakhimpur and five less in Manipur State. Notwithstanding a decrease in the number of vaccinators in Manipur State the number of vaccinations performed showed an increase of 1,593. In the tea gardens, dispensaries, Jails, Mental hospital, Police hospitals, Infectious diseases hospitals and Railway hospitals, the vaccination operations were performed by their respective Medical Staff.

3. *Total number of operations.*—The total number of vaccination operations performed in the province during the year 1924-25 was 418,359 as compared with 385,579 in the preceding year showing an increase of 32,780 operations. The district variations are discussed in paragraph 8 of this report. The number of operations performed by the different agencies was as follows:—

379,321 operations by departmental vaccinators.

2,961 operations by dispensary staff.

33,243 operations by tea garden agencies.

2,558 operations by jail, mental, police and infectious diseases hospital staff.

276 operations by railway agency.

4. *Deaths from small-pox.*—The death-rate from small-pox per mille of population during the year was '22, as compared with '40 in 1923-24. This shows a very satisfactory decrease. The highest death-rate of '96 was reported from the Kamrup district. This district also showed a very high death-rate for the previous two years. A chief reason for the persistence of small-pox in this district is the opposition to vaccination by *Mahapurushias*. It is reported that they as a rule are the first to offer opposition and that their example is followed by other classes. It is now proposed in 1925 that certain villages whose inhabitants refuse to accept vaccination and where outbreaks of small-pox are very frequent, be declared as infected with small-pox under the provisions of the regulations published under Government Notification No. 1873LS.-G., dated 11th May 1925. The next highest rate of '56 per mille was reported from the Darrang district in which Kacharis in general and those of Dalgaon, Orang and Chinakona mauzas all in the Mangaldai subdivision in particular are strongly opposed to vaccination. In Nowgong district, which reported the highest mortality from small-pox in 1923-24, 500 Mahapurushias and 1,300 Lalungs who are habitually opposed to vaccination were vaccinated during the year under report. An epidemic of small-pox occurred in the Sibsagar district in the month of December.

5. *Dispensary vaccination.*—Of the 2,961 vaccination operations performed by the dispensary staff 1,457 were primary and 1,504 were revaccinations. The figures of the previous year were 2,099 vaccinations, of these 1,363 were primary and 736 revaccinations. As usual, villages around dispensaries are allotted to vaccinators and only those who prefer to be done by the dispensary medical officers attend them for the purpose.

6. *Percentage of successful vaccination.*—The percentage of success in primary operations performed by all establishments during the year 1924-25 was 95.19, as compared with 95.58 in the preceding year, whilst in the case of revaccinations the



percentage of success was 61.36 in 1924-25, as compared with 59.32 in 1923-24. The percentage of success in the case of various agencies were as follows :—

	Primary.	Revaccina- tions
Vaccination staff ... ..	95.18	60.69
Dispensary staff ... ..	88.84	47.42
Tea garden staff ... ..	96.19	87.09
Jail, Police, Mental and Infectious diseases hospital staff ...	69.73	45.14
Railway staff ... ..	91.02	83.33

7. *Different methods of vaccinations.*—As usual, all vaccinations were performed during the year with glycerinated lymph manufactured in the Vaccine Depot at Shillong.

8. *Vaccination work in different districts.*—Out of 14 districts, ten reported an increase in the total number of operations over those of the previous year. The increase was the highest in the Kamrup district (+7,533), followed by Sylhet (+7,258), Sibsagar (+4,897), Lakhimpur (+3,731), Darrang (+3,072), Nowgong (+2,853), Lushai Hills (+1,753) and Manipur State (+1,593). In Kamrup the increase is due to the increased number of vaccinators employed to deal with the widespread outbreaks of small-pox in that district. Opposition to vaccination is still very prevalent in this district and, to save the district from the repeated attacks of small-pox, early opportunity will be taken this year (1925) to declare the refractory villages in which small-pox is prevalent as small-pox infected areas under the provisions of the regulations framed under the Epidemic Diseases Act. In Sylhet district, Habiganj and Karimganj Local Boards raised the number of their vaccinators by three and one respectively and the South Sylhet Local Board reduced the number of its vaccinators by 2.

In Sibsagar a larger number of vaccinations was performed to check small-pox which was sporadic throughout the year and assumed epidemic proportions from December 1924. The increase in the Nowgong district is satisfactory as it shows that vaccinations were done among Lalungs and Mahapurushias who hitherto showed prejudice against the operation.

The Khasi and Jaintia Hills, Naga Hills, Garo Hills and Sadiya Frontier Tract showed a fall in the number of operations varying from 183 in Sadiya Frontier Tract to 692 in Khasi and Jaintia Hills.

9. *Composition and strength of the Inspecting staff.*—The inspecting staff consist of 8 Inspectors, 21 Sub-Inspectors and 1 chief vaccinator in Manipur State and were the same as in the previous year.

10. *Verification by the Inspecting staff.*—Verification of the results of the work done by the vaccinating staff was done by the superior inspecting staff who consist of the district Civil Surgeons and their Assistant Surgeons including Assistant Surgeons on *Kala-azar* duty.

The table below shows the number of operations inspected in 1924-25, as compared with the previous year :—

	Primary.		Revaccination.	
	Number.	Percentage.	Number.	Percentage.
1	2	3	4	5
1924-25 ... ..	16,513	5.38	4,453	5.90
1923-24 ... ..	15,433	5.21	2,924	4.37

The Director of Public Health inspected vaccinations in the Province generally, while the Assistant Director of Public Health did so in the district of Sylhet. The percentages of inspections by the superior inspecting staff, *viz.*—25.36 in primary and 16.60 in revaccination, in the Darrang district were the highest and 1.19 per cent. and 1.44 per cent. respectively, in the Sylhet district were the lowest. The Sylhet figures however do not include inspections made by the Assistant Director of Public Health. The subordinate inspecting staff which consist of 8 Inspectors, 21 Sub-



Inspectors and one chief vaccinator in Manipur State inspected 179,737 primary and 32,682 revaccinations or 58.58 per cent. and 43.30 per cent., respectively, of the total number of vaccination of each class performed. The percentage of inspection of primary operation (23.01) done was the lowest in the Kamrup district. Amongst districts in the plains, the inspections in the districts of Goalpara (31.94) and Sibsagar (49.69) were comparatively low.

11. *Vaccination in compulsory areas.*—Vaccination has been made compulsory in all Municipal towns and in a few selected village areas under Act IV (B. C.), 1873. During the year, 1,831 infants under one year of age in Municipal towns out of an estimated number of 4,137 or 44.25 per cent. were successfully vaccinated, as compared with 45.72 per cent. in 1923-24. In Goalpara, Tezpur and Nowgong the results were satisfactory as almost all infants in each of these towns were successfully vaccinated. The results were very unsatisfactory in Sunamganj in which area no infant under 12 months was vaccinated during the year. In Sylhet, Karimganj and Gauhati, only 1.04, 14.44 and 12.59 per cent., respectively, of those under one year of age were vaccinated. Similar unsatisfactory returns were made in last year's report from Sunamganj and Karimganj Municipalities. These figures do not represent the actual state of vaccination of adult population. In these areas parents show a marked reluctance to have children under one year of age vaccinated. Two thousand six hundred and four operations were performed in village areas of Baniachong in Habiganj, Deraï and Pagla in Sunamganj and Beani Bazar in Karimganj subdivision of the Sylhet district to which Compulsory Vaccination Act has been extended against 2,532 operations in the preceding year. The Karimganj Local Board has provided a permanent vaccinator for the compulsory areas in that subdivision. The Civil Surgeon recommends that Habiganj and Sunamganj Local Boards should each provide a permanent vaccinator for rural compulsory areas in those subdivisions to ensure efficient vaccination. The total number of operations performed in rural compulsory areas in the Sibsagar district fell from 545 operations in 1923-24 to 519 in the year under report. The Chairmen of Local Boards of Jorhat and Golaghat have agreed to appoint one permanent vaccinator each for work in rural compulsory areas in their subdivisions from next year, and it is hoped that it will result in better vaccination in those areas.

12. *Vaccine Depot.*—The total number of capillary tubes loaded during the year was 617,855 against 587,386 in the preceding year. The total number of tubes issued during the year was 583,573, as compared with 557,395 in 1923-24, showing an increase of 26,178 tubes. The number of calves inoculated during the year was 482 and lymph was taken from 421 calves, the remaining 61 calves being rejected—25 for failure of operation, 3 for illness and 33 for ulceration and unsatisfactory vesicle against 69 calves rejected in the preceding year. The total cost of working of the depot was Rs. 14,331 as compared with Rs. 13,561 in the preceding year, the increase is mainly under establishment due to a senior Sub-Assistant Surgeon being placed in subordinate charge. During the year, 93,169 tubes were issued by value payable post to various tea estates and the Manipur State, and a sum of Rs. 5,809-5-0 was credited into the Treasury. If this amount is deducted from the total depot cost, the cost of working the depot would be Rs. 8,551-11-0 only. Major A. F. Babonau, C.I.E., O.B.E., I.M.S., held charge of the depot throughout the year. The subordinate charge was held by Sub-Assistant Surgeon Narayan Chandra Das Gupta from the beginning of the year to the 18th June 1924 and Sub-Assistant Surgeon Narendra Nath Dam from 19th June 1924 to the end of the year.

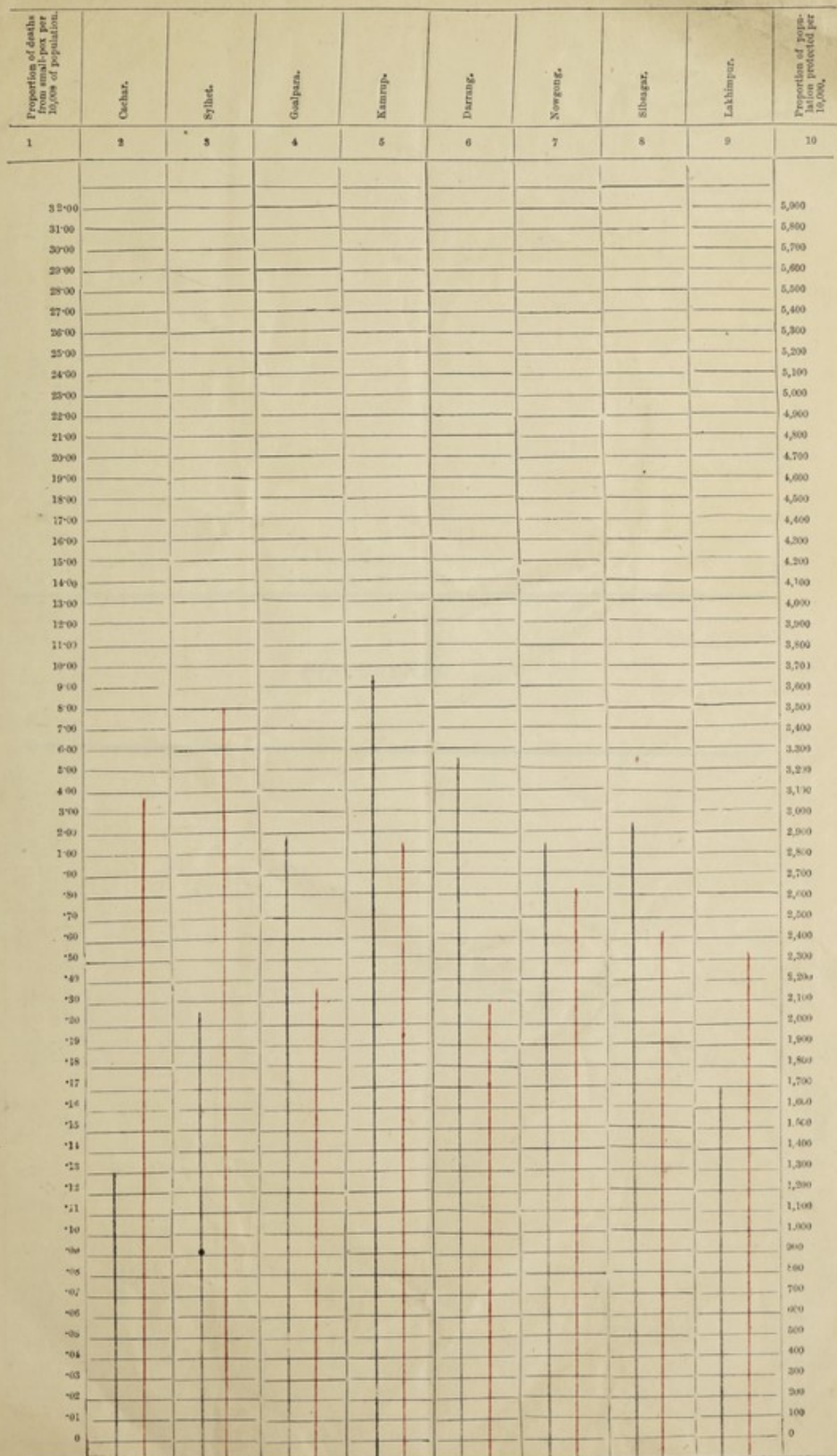
13. *Cost of the Department.*—The total cost of the department was Rs. 89,484-7-6 as compared with Rs. 86,373-15-10, showing an increase of Rs. 3,110-7-8 which is mainly due to the appointment of additional vaccinators by local bodies to deal with small-pox outbreak. The average cost of each successful case of vaccination was 4 annas 4 pies, as compared with 4 annas 5 pies in 1923-24.

14. *General.*—The great percentage of vaccinators is employed for the cold weather months only. The average number of vaccinations performed by each vaccinator was 878 during the year. This number does not compare favourably with those of other provinces, but conditions are different. A large percentage should be permanent vaccinators so that epidemics during the hot weather could be adequately dealt with. Experiments are this year now being made to send vaccine to districts in ice in Thermos Flasks so that it may reach there without losing its potency which it otherwise would do during the hot months.





The following diagram illustrates the death-rates from small-pox in each district side by side with the proportion of the population protected against the disease by vaccination during the seven years 1918-19 to 1924-25.



NOTE.—Black lines indicate death-rates from small-pox.

Red lines indicate the proportion protected by vaccination.



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## A.—VACCINE

## Statement No. I—Showing particulars of Vaccination in

No.	District.	Population of district according to the census of 1921.	Average population per square mile.	Average number of vaccinators employed throughout the season.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.	Primary	
									Total.	Under one year.
1	2	3	4	5	6			7	8	9
SURMA VALLEY AND HILL DIVISION.					Male.	Female.	Total.			
1	Cachar ... ..	529,301	148	27	12,502	10,059	22,561	836	16,812	2,362
2	Sylhet ... ..	2,541,341	472	114	73,345	65,520	138,865	1,218	115,946	12,905
3	Khasi and Jaintia Hills ... ..	243,263	40	9	6,402	6,613	13,015	1,446	10,210	2,606
4	Naga Hills ... ..	158,801	52	5	2,886	2,473	5,359	1,072	3,953	1,023
5	Lushai Hills ... ..	98,406	14	5	3,335	1,934	5,269	1,054	3,099	259
Total of Surma Valley and Hill Division		3,571,112	141	160	98,470	86,599	185,069	1,157	150,020	19,155
ASSAM VALLEY DIVISION.										
6	Goalpara ... ..	762,523	193	48	17,706	13,307	31,013	646	25,934	7,844
7	Kamrup ... ..	762,671	197	57	25,541	22,078	47,619	835	37,114	7,128
8	Darrang ... ..	477,442	164	28	11,577	9,040	20,617	736	14,811	2,164
9	Nowgong ... ..	398,007	108	29	13,392	9,157	22,549	778	14,381	2,221
10	Sibsagar ... ..	823,197	162	54	14,159	12,027	26,186	485	22,272	3,144
11	Lakhimpur ... ..	586,577	143	34	9,346	7,713	17,059	502	15,510	2,166
12	Garo Hills ... ..	179,140	57	7	4,402	4,334	8,736	1,248	7,789	5,423
Total of Assam Valley Division		3,989,557	149	257	96,123	77,656	173,779	676	137,811	30,090
13	Manipur State ... ..	384,016	45	11	10,581	8,604	19,185	1,744	16,325	6,648
14	Sadiya Frontier Tract ... ..	41,249	106	4	651	637	1,288	322	1,197	125
Total Vaccine Department		7,985,934	130	432	205,825	173,496	379,321	878	305,353	56,018
Total Dispensaries		...	...	...	...	...	2,961	...	1,457	227
Total tea-gardens by garden agencies		...	...	...	17,283	15,960	33,243	...	18,875	9,127
Total Jails, Mental hospital, Police hospitals and Infectious Diseases hospitals.		...	...	...	2,525	33	2,558	...	268	13
Total Railways		...	...	...	224	52	276	...	78	6
Grand Total		7,985,934	130	432	225,857	189,541	418,359	878	326,031	65,391

Sum

1	Total number of persons vaccinated.		Total number of operations performed	
	Primary.	Re-vaccinations.	Primary.	Re-vaccinations.
1	2	3	4	5
By special staff (Statement I) ... ..	305,353	73,968	305,353	73,968
By dispensary staff (Statement III) ... ..	1,457	1,504	1,457	1,504
By other agencies—tea-gardens, Railways, Jail hospitals, Police hospitals, Mental hospital and Infectious Diseases hospitals.	19,221	16,856	19,221	16,856
Total	326,031	92,328	326,031	92,328



## DEPARTMENT.

the Province of Assam during the year 1924-25.

vaccination.			Re-vaccination.			Percentage of successful cases in which the 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 previous five years.		Average annual number of deaths from small-pox during previous five years.	
Successful.														
Over one and under six years.	Total of all ages.	Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.		Primary.	Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
10,951	15,934	44	5,749	3,679	114	95.03	65.29	37.05	26	1.98	21,047	39.76	10	.02
61,222	110,521	...	22,919	12,078	...	95.32	52.70	48.24	...	...	126,570	49.80	413	.16
4,805	10,196	14	2,805	949	4	100.00	33.88	45.81	13	1.14	11,481	47.19	10	.04
2,282	3,722	96	1,406	1,116	19	96.50	80.46	30.46	2.43	1.35	5,889	37.08	...	...
1,572	2,695	91	2,170	1,390	142	89.59	68.54	41.51	2.93	6.54	4,616	46.91	...	...
80,922	143,068	245	35,049	19,212	279	95.52	55.25	45.44	16	7.9	169,603	47.49	433	.11
14,412	24,184	445	5,079	3,496	356	94.88	74.02	36.39	1.72	7.01	24,315	31.88	354	.46
23,339	35,431	441	10,505	6,319	1,946	96.61	73.83	54.74	1.19	18.52	28,515	37.39	566	.74
10,120	13,855	126	5,806	3,577	187	94.35	63.66	36.51	85	3.22	14,067	29.52	382	.80
9,293	13,475	1	8,168	4,503	13	93.71	55.22	45.17	0.1	1.6	13,991	35.15	551	1.38
14,890	21,168	118	3,914	2,468	47	95.55	65.82	28.71	53	1.20	23,827	28.94	82	.09
11,535	14,920	78	1,549	969	90	96.68	66.41	27.08	50	5.81	16,232	27.67	31	.05
1,599	7,231	155	947	596	79	94.72	68.66	43.69	1.99	8.34	7,011	39.13	3	.02
85,158	130,264	1,364	35,968	21,928	2,718	95.47	64.89	38.14	9.9	7.56	127,987	32.08	1,968	.55
5,313	11,961	2,846	2,860	1,288	976	88.74	68.36	34.50	17.43	34.12	21,110	54.97	...	...
739	975	133	91	55	...	91.63	60.44	24.97	11.11	...	1,264	30.64	...	...
172,132	286,268	4,588	73,968	42,483	3,973	95.18	60.69	41.16	1.50	5.37	319,965	40.66	2,402	.30
835	1,250	50	1,504	671	89	88.84	47.42	...	3.43	5.91	2,483	...	...	...
7,849	18,071	189	14,368	12,183	374	96.19	87.09	...	4.7	2.60	15,901	...	...	...
15	182	7	2,290	962	169	69.73	45.14	...	2.61	6.94	2,051	...	...	...
46	71	...	198	165	...	91.02	83.33	...	...	...	135	...	...	...
180,877	305,842	4,734	92,328	56,469	4,595	95.19	64.36	45.37	1.45	4.98	340,535	42.64	2,402	.30

mary.

Percentage of successful cases in which results were known.		Average number of persons vaccinated by each vaccinator.		Number of children successfully vaccinated.		Ratio of successful vaccination per 1,000 of population.	Total cost of Department.	Average cost of each successful case.
Primary.	Re-vaccinations.	Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One and under six years.			
6	7	8	9	10	11	12	13	14
95.18	60.69	432	878	56,018	172,132	41.16	Rs. a. p. 89,484 7 6	Rs. a. p. 0 4 4
88.84	47.42	...	...	227	835	...	...	...
95.81	81.57	...	...	9,146	7,910	...	...	...
95.19	64.36	432	878	65,391	180,877	45.37	89,484 7 6	0 4 4



## Statement No. II—Showing the cost of Vaccination in

No.	District.	Expenses												
		European supervising officer.	Pay.	Native supervising officer.	Pay.	Paid vaccinators.	Pay.	Licensed vaccinators.	Pay.	Clerks.	Pay.	Peons, etc.	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.	Rs. a. p.
1	Cachar ...	...	...	2	1,328 0 0	27	3,474 11 0	...	...	...	...	...	...	4,802 11 0
2	Sylhet ...	...	...	7	2,841 10 0	114	12,468 0 3	...	...	...	...	...	...	15,309 10 3
3	Khasi and Jaintia Hills ...	...	...	2	972 0 0	9	2,228 8 0	...	...	...	...	...	...	3,200 8 0
4	Naga Hills ...	...	...	1	360 0 0	5	1,141 6 0	...	...	...	...	...	...	1,501 6 0
5	Lushai Hills ...	...	...	1	432 0 0	5	594 12 0	...	...	...	...	...	...	1,026 12 0
6	Goalpara ...	...	...	2	1,072 0 0	48	5,352 5 9	...	...	...	...	...	...	6,374 5 9
7	Kamrup ...	...	...	3	1,411 3 0	57	6,692 8 0	...	...	...	...	...	...	8,103 11 0
8	Darrang ...	...	...	2	982 0 0	28	2,976 11 0	...	...	...	...	...	...	3,958 11 0
9	Nowgong ...	...	...	2	1,112 14 0	29	2,602 0 0	...	...	...	...	...	...	3,804 14 0
10	Sibsagar ...	...	...	3	1,420 8 0	54	3,492 12 6	...	...	...	...	...	...	5,313 4 6
11	Lakhimpur ...	...	...	2	1,140 0 0	34	2,900 1 0	...	...	...	...	...	...	4,130 1 0
12	Garo Hills ...	...	...	1	369 8 0	7	951 6 0	...	...	...	...	...	...	1,311 6 0
13	Manipur State ...	...	...	1	330 0 0	11	1,798 0 0	...	...	...	...	...	...	2,128 0 0
14	Sadiya Frontier Tract ...	...	...	1	535 15 0	4	436 5 0	...	...	...	...	...	...	972 4 0
Total of Districts ...		...	...	30	14,278 2 0	432	47,680 6 6	...	...	...	...	...	...	61,967 8 6
Shillong Vaccine Depot		1	600 0 0	1	2,406 0 0	12	2,150 0 0	...	...	...	...	...	...	5,156 0 0
Total for the Province		1	600 0 0	31	16,684 2 0	444	49,830 6 6	...	...	...	...	...	...	67,123 8 6

*the Province of Assam during the year 1924-25.*

ditore.				Paid from—							Number of all successful vaccinations and re-vaccinations.	Average cost of each successful case.
Travelling allowance.	Contingencies.		Total cost.	Imperial Fund.	Provincial Fund.	Local Fund.	Municipalities.	Native States.	Total.			
	Cost of Vaccine.	Other contingencies.										
16	17	18	19	20	21	22	23	24	25	26	27	
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
748 9 0	...	101 12 6	5,653 0 6	...	2,637 13 0	2,713 7 6	391 12 0	...	5,653 0 6	19,613	0 4 7	
1,816 5 0	...	348 7 9	17,674 7 0	...	4,707 12 6	12,492 14 6	473 12 0	...	17,674 7 0	122,509	0 2 3	
1,055 4 0	...	56 4 0	4,312 0 0	...	4,057 0 0	...	235 0 0	...	4,312 0 0	11,145	0 6 2	
425 14 0	...	34 1 0	1,961 5 0	...	1,961 5 0	...	...	...	1,961 5 0	4,838	0 6 6	
391 14 0	...	10 0 0	1,428 10 0	...	1,428 10 0	...	...	...	1,428 10 0	4,085	0 5 7	
581 5 6	...	232 4 6	7,187 15 9	...	1,519 4 0	5,220 12 9	447 15 0	...	7,187 15 9	27,690	0 3 14	
843 1 0	...	408 8 0	9,355 4 0	...	2,218 14 0	6,443 11 3	692 10 9	...	9,355 4 0	41,750	0 3 7	
978 8 0	...	94 9 9	5,031 12 9	...	1,804 4 0	2,977 12 9	249 12 0	...	5,031 12 9	17,432	0 4 7	
723 4 0	...	53 0 0	4,591 2 0	...	1,792 2 0	2,607 0 0	192 0 0	...	4,591 2 0	17,978	0 4 1	
947 13 0	...	279 11 6	6,540 13 0	...	2,528 4 9	3,520 11 3	491 13 0	...	6,540 13 0	23,626	0 4 5	
589 4 0	...	...	4,719 5 0	...	1,686 8 0	2,504 13 0	528 0 0	...	4,719 5 0	15,880	0 4 9	
550 7 0	...	9 13 6	1,871 10 6	...	1,871 10 6	...	...	...	1,871 10 6	7,827	0 3 19	
...	1,300 10 0	21 11 0	3,480 5 0	...	...	...	...	3,480 5 0	3,480 5 0	13,249	0 4 2	
343 9 0	...	...	1,315 13 0	1,315 13 0	...	...	...	...	1,315 13 0	1,030	1 4 5	
10,065 1 6	1,300 10 0	1,850 3 6	75,123 7 6	1,315 13 0	28,213 7 9	38,481 3 0	3,632 10 9	3,480 5 0	75,123 7 6	328,751	0 3 8	
...	...	9,305 0 0	14,361 0 0	...	14,361 0 0	...	...	...	14,361 0 0	...	...	
10,005 1 6	1,300 10 0	11,055 3 6	89,484 7 6	1,315 13 0	42,574 7 9	38,481 3 0	3,632 10 9	3,480 5 0	89,484 7 6	328,751	0 4 4	



## B.—DISPENSARY

Statement No. III—Showing Dispensary Vaccination

Districts.	Number of dispensaries in each district to which a vaccinator is attached.	Average number of vaccinators attached to dispensaries during the year.	Total number of persons vaccinated.	Average number of persons vaccinated by each vaccinator	Primary vaccination.				
					Total.	Successful.			Unknown.
						Under one year.	Over one and under six years.	Total of all ages.	
1	2	3	4	5	6	7	8	9	10
Cachar ...	...	...	...	...	...	...	...	...	...
Sylhet ...	...	...	288	...	146	10	88	128	...
Khasi and Jaintia Hills	...	...	...	...	...	...	...	...	...
Naga Hills	...	...	324	...	281	51	212	275	1
Lushai "	...	...	296	...	195	25	97	179	2
Goalpara	...	...	...	...	...	...	...	...	...
Kamrup ...	...	...	...	...	...	...	...	...	...
Darrang ...	...	...	143	...	123	10	64	110	2
Nowgong	...	...	52	...	25	1	10	19	...
Sibsagar	...	...	196	...	116	15	40	70	36
Lakhimpur	...	...	1,312	...	361	43	259	332	3
Garohills	...	...	5	...	5	...	5	5	...
Manipur State	...	...	155	...	135	50	57	107	6
Sadiya Frontier Tract.	...	...	210	...	70	22	3	25	...
Total ...	...	...	2,961	...	1,457	227	835	1,250	50

Comparative Statement No. IV—Showing the number of persons primarily vaccinated in each of the under

Establishment.	Persons							
	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.
	Year ending							
	1915-16.	1916-17.	1917-18.	1918-19.				
1	2	3	4	5	6	7	8	9
Government ...	21,309	18,365	23,969	22,218	23,473	20,246	17,309	15,570
Dispensaries ...	1,095	945	2,553	2,149	1,929	1,704	1,406	1,216
Municipal ...	5,575	5,389	5,110	4,793	4,495	4,199	4,072	3,792
Local Funds ...	173,757	168,724	213,215	208,712	201,759	189,413	170,387	162,163
Licensed vaccinators	25,697	24,562	18,942	18,154	18,760	17,188	14,316	12,931
Apprentices ...	16,342	15,966	6,445	6,235	7,888	7,614	7,161	7,011
Native States ...	13,974	12,966	12,946	12,023	12,947	9,909	8,689	7,265
Total ...	257,749	246,917	283,180	274,284	271,251	250,273	223,340	209,948

## VACCINATION.

*in the Province of Assam during the year 1924-25.*

Re-vaccination.			Percentage of successful cases in which the results were known.		Percentage of unknown cases to total cases.	
Total.	Successful.	Unknown.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
11	12	13	14	15	16	17
...	...	...	...	...	...	...
142	90	...	87.67	63.38	...	...
...	...	...	...	...	...	...
43	29	...	98.21	67.44	36	...
101	52	2	92.75	52.52	1.03	1.93
...	...	...	...	...	...	...
...	...	...	...	...	...	...
20	16	...	90.91	80.00	1.62	...
27	9	...	76.00	33.33	...	...
80	42	13	87.50	62.69	31.03	16.25
951	355	73	92.74	40.43	88	7.68
...	...	...	100.00	...	...	...
...	...	...	82.91	...	4.44	...
140	78	1	85.71	56.11	...	71
1,504	671	89	88.84	47.42	3.43	5.91

*and the number of those persons who were successfully vaccinated in the Province of Assam mentioned official years.*

primarily vaccinated.

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.	Total number.	Number successfully vaccinated.
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31st March

1919-20.		1920-21.		1921-22.		1922-23.		1923-24.		1924-25.	
10	11	12	13	14	15	16	17	18	19	20	21
22,970	20,682	26,096	24,194	48,215	45,045	24,499	22,417	25,859	23,730	18,858	17,945
4,787	3,892	1,017	892	597	495	756	660	1,363	1,163	1,457	1,250
4,606	4,276	3,858	3,431	3,467	3,268	4,925	4,382	5,997	5,499	4,991	4,726
249,931	238,218	252,105	237,777	205,990	194,158	237,170	223,749	243,130	231,092	262,227	248,759
...	...	...	...	...	...	...	...	...	...	...	...
5,271	5,180	2,325	2,223	950	925	2,414	2,320	6,101	5,945	2,952	2,877
26,595	16,159	17,059	11,690	16,529	13,240	13,892	11,524	13,534	10,506	16,325	11,961
314,160	288,407	302,460	280,207	275,748	257,131	283,656	265,052	295,984	277,935	306,810	287,518



*Statement No. V—Showing particulars of Vaccination verified by Inspecting Officers for the year 1924-25.*

District.	Total number of persons vaccinated.		Total number inspected.				Percentage of inspection to total number vaccinated.				Percentage of successful cases to total number inspected.				Percentage of successes reported by vaccinators.	
			By Assistant Director of Public Health or Civil Surgeons.		By Native Superintendents or other Inspecting Officers.		By Assistant Director of Public Health or Civil Surgeons.		By Native Superintendents or other Inspecting Officers.		By Assistant Director of Public Health or Civil Surgeons.		By Native Superintendents or other Inspecting Officers.			
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Cachar ... ..	16,812	5,749	1,135	131	10,241	2,520	6.09	2.28	60.91	43.83	90.88	67.93	92.32	57.77	95.03	65.29
Sylhet ... ..	116,002	23,061	1,384	333	88,317	11,513	1.19	1.44	76.07	49.92	95.15	64.45	86.74	66.02	95.32	52.70
Khasi and Jaintia Hills ... ..	10,210	2,805	515	130	9,576	2,324	5.94	4.63	93.79	82.85	94.85	68.46	90.23	31.06	100.00	33.88
Naga Hills ... ..	4,234	1,449	90	...	2,263	508	2.12	...	53.45	35.06	90.00	...	92.00	58.85	96.50	80.46
Lushai „ ... ..	3,294	2,271	162	68	867	853	4.91	2.91	26.32	37.56	80.86	60.61	80.39	65.06	89.50	65.54
Goalpara ... ..	25,934	5,079	549	...	8,284	1,229	2.11	...	31.94	24.19	90.95	...	84.14	50.75	94.88	74.02
Kamrup ... ..	37,114	10,505	1,623	557	8,539	2,973	4.37	5.30	23.01	19.73	93.06	79.07	77.49	49.29	96.61	73.83
Darrang ... ..	14,034	5,826	3,787	967	12,532	2,958	23.36	16.60	74.00	50.77	93.32	79.21	90.10	64.13	94.35	63.66
Newgong ... ..	14,496	8,195	2,629	1,967	9,584	6,132	18.46	24.00	60.53	74.82	91.70	49.21	89.41	44.64	93.71	55.22
Sibsagar ... ..	22,388	3,904	1,058	98	11,125	1,405	4.72	2.45	40.09	35.15	95.08	41.12	95.00	77.79	95.55	63.82
Lakhimpur ... ..	15,871	2,500	701	6	10,640	249	4.42	2.4	67.07	21.96	94.86	83.33	98.06	62.29	96.08	60.41
Garo Hills ... ..	7,794	947	711	199	2,270	204	9.12	21.01	29.12	21.54	77.07	41.26	90.88	70.98	94.72	68.66
Manipur State ... ..	16,400	2,809	2,067	...	4,314	237	12.66	...	26.21	8.29	82.85	...	88.96	35.02	88.74	68.36
Sadiya Frontier Tract ... ..	1,267	231	82	...	1,185	177	6.47	...	99.52	76.62	99.34	...	84.41	64.40	91.63	60.44
Total ... ..	306,810	75,472	16,513	4,453	179,737	32,682	5.38	5.90	58.58	43.30	91.55	62.95	89.24	56.36	95.18	60.69

Statement No. VI—Showing the number of vaccinations performed in Municipal towns on children under one year of age during the year 1924-25.

District.	Town.	Number of births during the year.	Number of deaths amongst children under one year during the year.	Number of successful vaccination on children under one year during the year ending 31st March 1925.	Date of extension of Vaccination Act to town.
1	2	3	4	5	6
Cachar	Silechar ...	238	31	181	21st January 1892.
	Hailakandi ...	41	8	9	10th November 1922.
Sylhet	Sylhet ...	473	88	4	1st October 1882.
	Habiganj ...	206	60	61	11th December 1913.
	Sunamganj ...	144	35	...	28th June 1915.
	Karimganj ...	109	19	13	27th July 1915.
	Maulvi Bazar ...	89	23	27	16th April 1916.
Khasi & Jaintia Hills	Shillong ...	529	59	299	21st June 1895.
	Total of Surma Valley and Hill Division.	1,829	323	594	
Goalpara	Dhubri ...	239	53	80	13th February 1891.
	Goalpara ...	217	42	175	12th November 1890.
	Gauripur ...	156	38	44	15th September 1922.
Kamrup	Gauhati ...	485	104	48	August 1882.
	Barpeta ...	563	107	118	29th October 1915.
Darrang	Tezpur ...	206	37	186	22nd May 1907.
	Mangaldai ...	22	8	8	12th October 1906.
Nowgong	Nowgong ...	196	27	144	7th April 1897.
Sibsagar	Sibsagar ...	200	27	58	21st January 1892.
	Jorhat ...	175	32	44	12th April 1892.
	Golaghat ...	114	13	32	24th March 1892.
	Nazira ...	104	26	23	1st December 1916.
Lakhimpur	Dibrugarh ...	411	46	242	September 1883.
	Doom Dooma ...	28	3	7	21st October 1918.
	Tinsukia ...	86	8	28	31st August 1922.
	Total of Assam Valley Division.	3,202	571	1,237	
Total for the Province.		5,031	894	1,831	



## STATEMENT

*Showing, side by side, the ratio (per 1,000 of population) of deaths*

Districts.	1915-16.		1916-17.		1917-18.		1918-19.	
	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.
1	2	3	4	5	6	7	8	9
Cachar ... ..	·008	13,641	·59	26,734	2·24	17,561	·49	14,244
Sylhet ... ..	·06	102,842	·26	120,578	·52	93,549	·11	104,435
Khasi and Jaintia Hills ...	·02	4,963	...	9,385	·03	7,902	·11	5,395
Naga Hills ... ..	...	3,843	...	4,811	...	4,663	...	7,766
Lushai „ ... ..	·02	3,639	...	3,610	...	4,031	...	2,380
Goalpara ... ..	1·07	23,236	·82	20,263	·79	19,822	·27	14,007
Kamrup ... ..	3·10	35,030	·79	36,881	·74	44,802	1·65	27,727
Darrang ... ..	·61	13,563	·61	11,130	·08	11,582	·08	3,163
Nowgong ... ..	·25	12,408	·31	13,106	·04	13,225	·05	11,722
Sibsagar ... ..	1·22	22,813	1·35	29,676	·96	23,404	·81	15,182
Lakhimpur ... ..	·06	10,282	·18	9,758	·16	15,905	·14	10,536
Garohills ... ..	·39	8,171	·13	6,773	·98	5,023	...	5,198
Manipur State ... ..	...	13,094	...	12,152	...	18,159	...	17,699
Sadiya Frontier Tract ...	...	...	...	765	...	707	...	471
Total ... ..	·58	237,545	·47	305,622	·59	280,335	·34	239,925

## No. VII.

*from small-pox and the number of successful vaccinations during the ten years ending 1924-25.*

1919-20.		1920-21.		1921-22.		1922-23.		1923-24.		1924-25.	
Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.	Ratio of deaths from small-pox.	Number of successful vaccinations.
10	11	12	13	14	15	16	17	18	19	20	21
·03	22,736	·02	21,459	·003	20,263	·04	21,557	·02	19,225	·01	19,613
·16	127,816	·46	142,767	·29	127,139	·009	116,561	·02	118,735	·02	122,817
...	10,824	·20	10,627	·12	14,508	·008	9,885	...	11,772	...	11,145
...	4,569	...	9,539	...	4,748	...	5,682	...	5,626	...	5,142
...	7,098	...	6,294	...	5,249	·01	3,247	...	2,811	...	4,316
·66	23,579	·09	25,300	·48	22,434	1·05	23,724	·29	26,738	·19	27,680
·13	32,386	·08	28,613	·27	17,383	1·13	29,711	1·33	34,481	·96	41,750
·19	11,162	·49	13,670	2·38	13,036	·05	15,951	·62	17,013	·56	17,500
·02	12,845	·07	13,141	·40	14,522	3·12	14,907	2·72	15,205	·15	18,006
·58	28,601	·28	24,258	·10	17,028	·04	21,816	·06	27,826	·00	23,748
·09	16,915	·05	17,555	·07	15,608	·09	16,052	·04	15,500	·02	16,576
·06	5,138	·08	7,121	·02	6,312	·04	9,351	·02	7,183	...	7,832
...	50,439	...	18,154	...	16,214	...	15,714	...	12,540	...	13,356
...	1,351	...	1,803	...	1,182	...	1,056	...	1,454	·02	1,133
·20	355,459	·24	340,301	·35	295,626	·38	305,214	·40	315,639	·22	330,672



1914-15				1915-16				1916-17			
Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population
10	10000	10	10000	10	10000	10	10000	10	10000	10	10000
11	11000	11	11000	11	11000	11	11000	11	11000	11	11000
12	12000	12	12000	12	12000	12	12000	12	12000	12	12000
13	13000	13	13000	13	13000	13	13000	13	13000	13	13000
14	14000	14	14000	14	14000	14	14000	14	14000	14	14000
15	15000	15	15000	15	15000	15	15000	15	15000	15	15000
16	16000	16	16000	16	16000	16	16000	16	16000	16	16000
17	17000	17	17000	17	17000	17	17000	17	17000	17	17000
18	18000	18	18000	18	18000	18	18000	18	18000	18	18000
19	19000	19	19000	19	19000	19	19000	19	19000	19	19000
20	20000	20	20000	20	20000	20	20000	20	20000	20	20000
21	21000	21	21000	21	21000	21	21000	21	21000	21	21000
22	22000	22	22000	22	22000	22	22000	22	22000	22	22000
23	23000	23	23000	23	23000	23	23000	23	23000	23	23000
24	24000	24	24000	24	24000	24	24000	24	24000	24	24000
25	25000	25	25000	25	25000	25	25000	25	25000	25	25000
26	26000	26	26000	26	26000	26	26000	26	26000	26	26000
27	27000	27	27000	27	27000	27	27000	27	27000	27	27000
28	28000	28	28000	28	28000	28	28000	28	28000	28	28000
29	29000	29	29000	29	29000	29	29000	29	29000	29	29000
30	30000	30	30000	30	30000	30	30000	30	30000	30	30000
31	31000	31	31000	31	31000	31	31000	31	31000	31	31000
32	32000	32	32000	32	32000	32	32000	32	32000	32	32000
33	33000	33	33000	33	33000	33	33000	33	33000	33	33000
34	34000	34	34000	34	34000	34	34000	34	34000	34	34000
35	35000	35	35000	35	35000	35	35000	35	35000	35	35000
36	36000	36	36000	36	36000	36	36000	36	36000	36	36000
37	37000	37	37000	37	37000	37	37000	37	37000	37	37000
38	38000	38	38000	38	38000	38	38000	38	38000	38	38000
39	39000	39	39000	39	39000	39	39000	39	39000	39	39000
40	40000	40	40000	40	40000	40	40000	40	40000	40	40000
41	41000	41	41000	41	41000	41	41000	41	41000	41	41000
42	42000	42	42000	42	42000	42	42000	42	42000	42	42000
43	43000	43	43000	43	43000	43	43000	43	43000	43	43000
44	44000	44	44000	44	44000	44	44000	44	44000	44	44000
45	45000	45	45000	45	45000	45	45000	45	45000	45	45000
46	46000	46	46000	46	46000	46	46000	46	46000	46	46000
47	47000	47	47000	47	47000	47	47000	47	47000	47	47000
48	48000	48	48000	48	48000	48	48000	48	48000	48	48000
49	49000	49	49000	49	49000	49	49000	49	49000	49	49000
50	50000	50	50000	50	50000	50	50000	50	50000	50	50000

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