

Notes and statistics on vaccination in Burma.

Contributors

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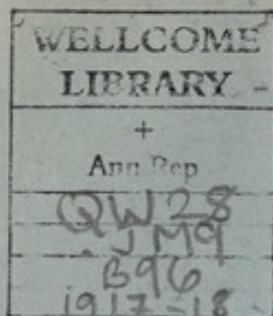
NOTES AND STATISTICS
ON
VACCINATION IN BURMA

FOR THE YEAR 1917-18



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NOTES AND STATISTICS

ON

VACCINATION IN BURMA

FOR THE YEAR 1917-18.

The following statement shows the vaccination establishment employed in Statement II. the Province in 1917-18:—

District Superintendents of Vaccination.	Native Supervising Officers.			Vaccinators.
	Sub-Assistant Surgeons.	Native Superintendents of Vaccination.	Head Vaccinators.	
42	26	38	3	308

This establishment was in excess of that employed in 1916-17 to the extent (a) of two native supervising officers (Sub-Assistant Surgeons), and (b) 9 vaccinators.

(a) Additional allowances for supervising vaccinators were given to three Sub-Assistant Surgeons in Wakèma, Toungoo, and Myingyan Municipalities; while the allowance given to a Sub-Assistant Surgeon in Maymyo was discontinued.

(b) One permanent vaccinator was added to the establishment of Akyab Municipality; three temporary vaccinators were employed in Mergui Town and five in the district, and one for 6 months in Salween District. A vaccinator, still under training at Putao, has been removed from the list of paid vaccinators, in which he was incorrectly included last year.

2. *Punishments: Dismissals and Removals.*—Two vaccinators were dismissed from the establishment of Amherst District and five vaccinators were removed from the establishments of Kyaukpyu, Katha, Ma-ubin, Myingyan and Myaungmya Districts respectively. The offence in every case included falsification of his returns, and disobedience of orders, and in two cases, the acceptance of a bribe.

A Native Superintendent of Vaccination in Henzada District was under suspension at the close of the year for falsification of his returns and neglect of duty detected by the Civil Surgeon in 1917, and orders have since been passed for his removal from service in the Department. One Head Vaccinator on the Taunggyi establishment was removed for neglect of duty and one Native Superintendent of Vaccination suspended for 6 months.

3. *Vaccination work in 1917-18.*—The total number of operations reported during the year 1917-18 as performed by special staffs and "other agencies" but excluding vaccinations in Dispensaries and Jails was 492,008 of which 429,417 were primary operations, and 62,591 re-vaccinations. These figures show a decrease of 57,141 operations under all heads on the returns of the previous year, but there is a small increase in primary operations of 9,060, the deficiency being represented by 66,201 re-vaccinations, which falling-off is correctly explained by a decrease in the prevalence of small-pox in the Province. Statement I.

4. *Successful Operations.*—Successful primary operations performed in rural areas amounted to 394,108 with an increase of 3,491 on the work of the previous year. These operations form the bulk of the work of the Department, and are a measure of its progress. Statement I.

Districts showing a considerable increase over the previous year in the number of successful primary operations performed are:—Kyaukpyu (1,527), Pegu (1,408), Bassein (2,667), Henzada (3,602), Mergui (1,877), Thatôn (3,077), Ma-ubin (862), Putao (839), Sagaing (818), Thayetmyo (1,538), Minbu (812).

A notable decrease in primary successful operations is shown by Akyab District (2,994), Rangoon (918), Hanthawaddy (827), Prome (1,462), Lower Chindwin (1,119), Pakòkku (1,422), Meiktila (1,236), Myingyan (1,034), Northern Shan States (872), and Southern Shan States (3,729).

Both the Irrawaddy and Tenasserim Divisions have done well, the former having an excess of 7,332 successful primary operations to its credit, with only

one defaulting district, Pyapōn, which shows a deficit of 14 operations on last year's returns. The latter has an excess of 3,588, contributed to mainly by Thatōn District with 3,077 additional operations, Mergui with 1,877, and Salween with 104. The three districts of Amherst, Toungoo and Tavoy, show a falling off. Arakan Division as a whole shows a deficit of 1,454, Pegu Division of 912, in which Prome District bears the largest share; Upper Burma divisions and districts have not done very well, with the exceptions above mentioned of Putao, Sagaing, Thayetmyo and Minbu Districts. These two last named districts swell the aggregate of successful primary operations in the Magwe Division to an excess over the previous year of 1,110, in spite of the deficit in Pakōkku District. Meiktila Division shows a deficit of 1,448 operations, contributed by Myingyan and Meiktila Districts. The decline in Sagaing Division is 503, both Upper and Lower Chindwin Districts showing a falling off, which in the latter district is serious, and inadequately explained. The decrease in the Northern Shan States is disappointing in view of the progress made there in the previous year under the new scheme of work. The relatively large deficit in the Southern Shan States is correlated with the very unsatisfactory state of the organization of the vaccination staff working from Taunggyi, and is also partly due to the loss of a vaccinator in Loimwe District. This Province has fortunately not suffered from a general epidemic of small-pox for 5 years, and the stimulating influence of epidemics is lacking in nearly all districts. Nevertheless we do find a marked advance in the numbers vaccinated in certain divisions and districts, while others are conspicuous for a decline in the propaganda. The most potent influence in favour of progress in vaccination is undoubtedly improvement in organization of the scheme of work, and the degree of support given to the vaccinators by the district administrative officers of all grades. It must not be forgotten that vaccination in rural areas is voluntary, that the mass of the people are apathetic in the matter except in the presence of small-pox, but that there is very little antagonism shown to the operation, and parents in general yield not unwillingly to advice and pressure exerted by village headmen, more especially if Subdivisional and Township Officers take an active interest in the movement.

The weak spot in the organization of the Department is the lack of efficient supervision of the vaccinators and Native Superintendents, the latter as a class (with some notable exceptions) having proved to be neither efficient nor trustworthy; while personal supervision by the Civil Surgeon can only be exercised to a very limited extent in many of the largest and most populous districts. For the present, reliance for improvement of the position of vaccination in the districts must be placed in the Lay authorities, and it is encouraging to note that Commissioners and Deputy Commissioners on all sides are directing their attention and energies to the encouragement of the vaccination propaganda in their jurisdictions. In two important divisions, Irrawaddy and Tenasserim, the immediate increase of staff and improvement of organization is being adopted with vigour, and important developments may confidently be expected; while elsewhere the position is being closely watched by the local authorities. It therefore seems unnecessary to criticize in detail deficiencies which the figures for certain districts quoted above reveal, since the general revival of interest in vaccination by all concerned is likely to lead to an all round improvement in the immediate future.

Statement I. 5. *Successful Re-vaccination.*—Re-vaccination returns show a marked increase only in Mergui District where the outturn of work exceeded that of the previous year by 1,640 operations, while it was 2,113 in excess of the number of revaccinations performed in 1915-16.

Statement V. 6. *Verification work performed by Inspecting Officers.*—Out of 430,206 persons primarily vaccinated 54,226 or 12·60 per cent. were verified by Civil Surgeons and Health Officers, against 12·50 per cent. in the previous year, and 230,374 or 53·55 per cent. by Native Superintendents and Sub-Assistant Surgeons against 55·26 per cent. in 1916-17. The return of work under this head is on the whole satisfactory. Myaungmya District returns only 2·68 per cent., Toungoo District only 2·39 per cent., Shwebo District only 1·59 per cent. of primary operations inspected by Civil Surgeons, while in Ma-ubin District the Civil Surgeon inspected 16·79 per cent., in Amherst District 19·75 per cent., in Tavoy 30·84 per cent., in Thatōn 19·67 per cent., in Bhamo 23·67 per cent., Ruby Mines 60·51 per cent., Lower Chindwin 55·79 per cent., Kyauksè 31·54 per cent. and Myingyan 43·44 per cent. In districts where large numbers were vaccinated, Native Superintendents claim to have verified 93·08 per cent. in Pegu District, 84·10 per cent. in Insein District, 76·62 per cent. in Sagaing District, 88·92 per cent. in

Lower Chindwin District, 72.92 in Thayetmyo District and 99.24 in Meiktila District.

7. *Dispensary Vaccination.*—The total of operations was 2,787, a decrease of 1,291 on the previous year's returns, but showing a small increase, under the head of re-vaccination operations, of 85. The decrease under primary operations (1,376) is due to freedom from small-pox, dispensary vaccination being wholly voluntary. It is noted that there was an increase of 507 operations in the dispensaries of the Irrawaddy Division, confined to three districts, Bassein, Myaungmya and Henzada; an increase of 38 operations in Kyaukpyu District; of 40 operations in Mandalay District, 98 in Sagaing District, and 18 in Shwebo District. Several districts send no returns of dispensary vaccination, e.g. Akyab, Rangoon Town District, Insein, Pegu, Prome, Pyapôn, Tavoy, Thatôn, Bhamo, Ruby Mines, Thayetmyo, Minbu, Yamèthin, Kyauksè, and Myingyan, and the Northern Shan States. Statement III.

8. *Vaccination in Towns.*—The total primary successful operations performed in towns in 1917-18 was 31,633 or 2,835 less than in the previous year. The percentage of successes was 92.14 against 98.30 in the former period. The lowest success rate was achieved at Bhamo 65.49, while Wakèma only obtained 81.20, and Nyaunglebin, Thatôn, and Mergui between 82.00 and 83.00.

9. *Infant Vaccination in Towns.*—It is noted that, as in previous years, so in the year under report, there was in many towns a large deficiency in the number of infants vaccinated under 12 months of age. Various reasons are offered by Civil Surgeons for this result, such as postponement of vaccination on account of ill-health, migration of parents of infants from the town, high mortality of infants, low birth-rate and so on. Too often no remark is made by the Civil Surgeon in explanation of the deficiency. It is probable that some of the explanations offered are made in a haphazard manner, without careful investigation. Appendix B.

Under the provisions of the Vaccination Act every child living in a town ought to be protected against small-pox by vaccination, and it appears to me that any outbreak of small-pox in towns affecting children under ten years of age is discreditable to the Town Administration whether it be a Municipal or Town Committee. The prevention of small-pox is a branch of sanitation which every member of a Municipal or Town Committee should have at heart, since it is within the power of his Committee to protect the whole town's population from the risks attaching to this horrible disease by steadfastly prosecuting the vaccination of children of tender age, year by year. With a view to stimulating the interest of Municipal and Town Committees in this subject, I give below a list of towns where vaccination appears to be prosecuted with less vigour and thoroughness than is demanded by the vital issues at stake as well as a list of those towns where vaccination is progressively improving, and where the Administrative Committee and Vaccination Staff are to be congratulated upon the returns.

I would suggest that all Municipal Committees and Town Committees should, at least once in the year, examine into the position of their town population with reference to its state of protection from small-pox, and take action upon the results revealed by the enquiry.

Towns showing a high rate of infant vaccination.—Special credit attaches to the excellent results obtained at Mandalay, Thôngwa, Nyaunglebin, Pyapôn, Moulmein, Tavoy, Pakôkku, and the three towns of Yamèthin District—Yamèthin Pyinmana, and Pyawbwè. Other towns with a highly creditable record are Akyab, Pegu, Myanaung, Wakèma, Mergui, Yenangyaung, Myingyan, Nyaungu, and Thayetmyo.

Towns showing a marked deficit in infant vaccination.—The following lists show the percentages of survivors of births not vaccinated:—

Over 10 per cent.	Over 20 per cent.	Over 30 per cent.	Over 40 per cent.	Over 60 per cent.	Over 80 per cent.
Rangoon ..	Prome ...	Kyaukpyu ..	Sandoway ...	Toungoo ...	Katha, ...
Paungdè ...	Thatôn ...	Taungdwingyi	Myaungmya ...	...	...
Bassein ...	Kyaikto ...	Magwe ...	Maymyo ...	...	...
Yandoon ...	Kawkareik ...	Syriam ...	Sagaing ...	...	...
Danubyu ..	Allanmyo ...	Ngathaing-gyaung, ...	...	...	...
Letpadan ...	Minbu ...	Henzada ...	...	...	...
Gyohingauk ...	...	Kyangin ...	...	...	...
Shwegyin ...	...	...	...	...	...
Shwebo ...	...	...	...	...	...

The backward position of Katha is attributed to the fact that the Vaccination Act is not in force in that town. This is true also of Lashio, Taunggyi and Kalaw. The Act should be applied to these towns without delay.

10. *Vaccine Depot, Meiktila.*—It is with much pleasure that I welcome the return of Lieutenant-Colonel Entrican to the charge of Director of the Meiktila Vaccine Depot. His experience of the work of organizing the preparation and distribution of calf lymph renders him a tower of strength to the whole edifice of the Vaccination Department of this Province. He assumed charge at the Depot in November 1917. Dr. W. D. Jones was in charge up to November 26th. He has performed his duties with zeal and ability and to my entire satisfaction. I record my thanks to both these officers, and to the establishment which has worked efficiently under their control.

Four hundred and thirty-five calves were inoculated against 358 in the year previous. These yielded 340 ounces of lymph, or an average of 342·2 grains per calf—a small decrease on the average of 365·5 grains of 1916-17. The number of doses issued to District Superintendents of Vaccination and others was 666,793 against 726,424 doses in the preceding year. The Director remarks that while there has been a considerable increase in the outturn of lymph, the number of doses has decreased. This is due to a substantial increase in the allowance per dose, from one-seventh to about one-fifth of a grain. Each capillary tube has been filled to its maximum capacity, so that it contains ample lymph for two operations.

The Rangoon Health Department received 3,200 grains of seed lymph, and Loimwe vaccine depot 160 grains. Military hospitals received 2,530 doses, and the Têngyüeh Consulate 4,380 doses. A success rate of 96·90 per cent. was reported in 335,130 primary operations, while 48,383 re-vaccinations returned a success rate of 50·25 per cent.

As usual there has been much wastage of lymph. Special action is being taken by this office to check the excessive wastage in the Northern Shan States.

11. *Calf Supply.*—Considerable difficulty was experienced in obtaining calves, owing to the locally available supply being bought up for consumption at the Turkish prisoners' camp. This has led to some additional expenditure under this head.

12. *Cost of the Depot.*—The expenditure shows an increase of Rs. 3,253 over that of 1916-17. The Director states that part of this excess is fictitious, the real increase being (a) purchase and hire of calves Rs. 741, (b) contingencies Rs. 577, including extraordinary repairs to refrigerator, and enhanced cost of materials, such as cloth, cotton wool, kerosene, etc., (c) cost of feeding calves not yet sold. The fictitious increase amounts to Rs. 2,314 under the head of "European Stores," purchased during the two previous years but only paid for in 1917-18.

13. *Training Classes.*—Three Native Superintendents of Vaccination went through a course of study but failed to pass at the final examination. Thirty five vaccinators were trained and all qualified.

14. *Vaccination in the Port of Rangoon.*—Under the provisions of section 9 of the Burma Vaccination Law Amendment Act of 1909—11,330 persons arriving at Rangoon to work as labourers were vaccinated by the Municipal vaccination staff under the supervision of the Port Health Officer. From the nature of the circumstances the results of these operations are not known, and they have therefore been excluded from Statement No. I.

15. *Vaccination in Jails.*—In 31 jails and 3 subsidiary jails 25,493 persons were vaccinated, 3,319 by primary, and 22,174 by re-vaccination. Of the former class of operations 2,420 were successful, and there was 12,374 successful re-vaccinations.

16. *Private Practitioners.*—Report 705 primary and 324 re-vaccinations.

17. *Cost of the Department.*—The total expenditure during the year was Rs. 2,21,214-7-0 against Rs. 2,27,671-13-8 in the previous year, a decrease of Rs. 6,457-6-8.

The average cost for each successful operation for the Province was 8 annas 5 pies against 8 annas 3 pies in the previous year.

C. E. WILLIAMS, M.D., D.P.H., D.T.M.,

Lt.-Col., I.M.S.,

RANGOON, 20th May 1918.

Superintendent-General of Vaccination, Burma.

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A.—VACCINATION

STATEMENT NO. I—Showing the particulars of Vaccination in the

No.	Districts.	Population of districts according to census of 1911.	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 VACCINATION.				
									Total.	Successful.			Unknown.
										Under one year.	One and six years.	Total of all ages.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
ARAKAN DIVISION.													
1	Akyab ...	529,943	103	12	10,658	8,975	19,633	1,636	17,916	3,692	9,786	16,619	1,367
2	Hill Tracts, Northern	...	...	...	...	...	...	...	...	...	...	...	...
3	Arakan ...	22,234	15	2	455	319	774	392	383	4	114	506	26
4	Kyaukpou ...	184,916	49	6	3,789	3,429	7,218	1,203	7,069	647	3,653	6,384	273
4	Sandoway ...	102,893	27	4	2,999	2,471	5,470	1,368	4,102	198	2,013	3,515	606
	Total ...	839,896	67	24	17,911	15,194	33,105	1,379	30,561	4,596	15,566	29,978	2,112
PROG DIVISION.													
5	Rangoon ...	228,316	10,476	15	14,492	3,909	18,401*	1,188	6,627	3,910	1,386	5,503	1,103
6	Insein ...	265,245	186	6	5,369	5,577	10,946*	1,096	10,015	2,276	5,466	9,637	303
7	Hanthawaddy ...	325,589	196	8	6,505	6,064	12,569	1,584	10,937	1,674	6,111	10,266	532
8	Pegu ...	370,416	91	8	6,891	7,029	13,920	1,740	12,237	4,379	6,391	12,964	634
9	Tharrawaddy ...	433,320	151	8	10,080	11,118	21,198	2,682	20,757	7,522	11,853	20,405	114
10	Prome ...	378,571	139	12	6,883	7,078	13,961	1,136	12,490	3,851	7,119	11,540	497
	Total ...	2,073,737	156	67	49,871	40,775	90,646	1,581	73,029	23,312	33,946	69,194	3,160
IRRAWADDY DIVISION.													
11	Maubin ...	305,073	185	9	9,206	9,559	18,765	2,129	16,834	3,890	9,277	15,627	738
12	Pyawda ...	286,218	119	6	6,939	6,293	13,232	2,204	9,338	1,589	6,524	9,936	354
13	Bassein ...	440,928	107	9	10,606	9,727	20,333	2,259	18,074	2,909	10,093	18,164	682
14	Heazada ...	532,357	127	14	12,167	12,487	24,654	1,760	23,654†	7,748	13,437	24,331	941
15	Myaungmya ...	394,562	127	8	6,632	6,553	13,185	1,348	10,477	1,013	6,169	10,221	26
	Total ...	1,869,436	139	46	45,543	43,569	87,568	1,063	79,768	17,199	44,489	78,409	2,768
TENASSERIM DIVISION.													
16	Amherst ...	367,918	62	10	12,968	10,966	23,934	2,295	17,428	2,983	10,355	16,837	423
17	Tavoy ...	135,293	25	6	2,373	2,946	5,319	970	6,063†	3,685	1,596	5,412	25
18	Mergui ...	111,474	11	12	6,476	6,397	12,873	1,185	7,833†	810	2,826	6,363	478
19	Toungoo ...	331,076	67	9	6,788	6,486	13,274	1,472	12,884	2,169	6,393	12,467	451
20	Thaon ...	416,975	28	7	7,515	7,546	15,061	2,152	13,166	2,667	6,748	12,026	304
21	Salween ...	46,608	17	2	1,545	963	2,507	1,254	1,781	22	493	1,666	...
	Total ...	1,429,294	40	46	38,392	35,838	74,236	1,613	58,715	12,416	27,819	55,049	2,301
MANDALAY DIVISION.													
22	Mandalay ...	340,770	161	14	6,943	6,698	13,641	991	11,853†	7,424	4,119	11,566	60
23	Bhamo ...	107,511	16	4	1,868	1,807	3,675	703	3,059	986	1,329	2,715	256
24	Katha ...	198,193	28	4	2,322	2,840	5,162	1,268	5,444	647	2,300	5,202	23
25	Ruby Mines ...	100,618	18	9	1,323	1,043	2,366*	738	2,256	1,182	1,027	2,193	69
26	Myitkyna ...	88,577	8	2	898	701	1,597	799	1,365	193	684	1,310	42
27	Putao ...	31,600	3	...	710	457	1,167	1,197	1,197	119	217	1,064	14
	Total ...	833,969	21	27	14,067	12,685	26,752	3,088	25,174	10,881	19,673	26,140	434
SAGAING DIVISION.													
28	Shwebo ...	366,393	62	8	6,326	6,974	13,300	1,664	12,820	3,428	8,417	12,586	56
29	Sagaing ...	332,111	171	7	9,279	11,289	20,568	2,908	18,473	6,459	5,768	13,340	116
30	Lower Chindwin ...	316,176	91	6	5,404	5,872	11,276	1,913	10,746†	7,183	5,673	10,522	3
31	Upper Chindwin ...	170,682	11	6	3,922	4,261	8,183	1,367	8,010	933	5,766	7,491	269
	Total ...	1,185,371	44	27	24,141	28,416	62,557	1,994	45,049	18,008	23,602	43,849	484
MAGWE DIVISION.													
32	Thayetmyo ...	243,276	62	8	5,774	5,761	11,535	1,442	10,931†	2,912	5,662	10,684	369
33	Pakokku ...	436,160	44	10	10,883	10,916	21,799	2,180	16,015	6,227	6,902	14,788	715
34	Minbu ...	263,039	80	7	4,442	4,437	8,879	1,267	5,890	3,571	4,288	8,394	141
35	Magwe ...	359,536	98	8	6,226	6,339	12,565	1,571	12,609†	6,621	5,695	12,119	169
	Total ...	1,307,960	60	33	27,325	27,413	54,768	1,660	48,164	18,941	22,191	45,396	1,386
MEIKTILA DIVISION.													
36	Meiktila ...	230,362	122	5	3,914	3,889	7,783	1,561	7,894	1,622	4,930	6,901	329
37	Yamethin ...	306,379	74	7	6,181	6,280	12,461	1,778	12,307	3,839	5,386	11,423	619
38	Kyaukse ...	141,426	111	3	2,332	2,571	4,903	1,634	5,162†	3,895	710	4,789	76
39	Myingyan ...	399,288	146	7	6,633	6,686	13,319	1,630	11,123	4,328	5,577	10,063	648
	Total ...	1,127,965	108	22	18,060	18,346	36,482	1,666	35,998	15,384	17,163	33,148	1,792
SHAN STATES.													
40	Northern Shan States ...	458,962	32	10	6,915	6,823	13,738*	1,329	12,798	1,442	5,821	4,165	1,570
41	Southern Shan States ...	660,202	22	11	9,381	8,318	17,699	1,606	16,904	1,732	9,217	15,850	678
	Total ...	1,119,164	25	21	16,296	15,141	31,437	1,496	29,702	3,174	14,538	20,045	2,248
CHIN HILLS.													
42	Chin Hills ...	119,556	15	2	1,930	952	2,882	1,441	2,678	112	756	1,971	689
	GRAND TOTAL ...	12,146,217	51	305	262,902	233,372	491,374*	1,607	422,417	123,808	213,037	394,108	17,623

NOTE.—This statement does not include the figures for Dispensary
 * Work done by other
 † Secondary operations
 ‡ Including the are

DEPARTMENT.

Province of Burma during the year 1917-18 (Paragraphs 3, 4 and 5).

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.		No.
Total.	Successful.	Unknown.	Primary.	Re-vaccination.		Primary.	Re-vaccination.	No.	Ratio per 1,000.	No.	Ratio per 1,000.	
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
1,737	394	232	91.04	26.53	30.23	7.30	13.51	91,116	54.39	97	.18	1
91	33	3	75.95	43.18	34.47	3.75	3.30	4,469	40.20	...	...	2
149	52	15	9.327	41.94	34.55	8.55	10.07	47,501	51.48	90	.49	3
537	72	59	80.31	12.50	34.89	10.36	4.94	19,380	38.00	24	.28	4
2,444	556	279	91.31	24.55	31.59	6.91	13.97	162,718	35.75	211	.26	
11,874	4,455	4,199	92.53	20.00	34.05	18.04	25.97	104,011	70.94	149	.51	5
519	255	135	99.17	39.14	37.33	29.55	16.53	37,453	38.24	15	.05	6
1,712	764	289	97.59	53.35	30.98	4.30	15.39	43,311	25.99	11	.03	7
1,033	481	374	98.35	68.90	33.79	50.39	34.22	65,233	35.79	171	.45	8
531	234	113	93.80	55.50	47.63	5.5	21.98	93,843	43.11	237	.28	9
1,901	339	3.11	94.71	33.52	30.83	3.63	26.73	63,828	33.69	259	.68	10
17,033	5,556	5,422	98.19	56.59	30.50	4.29	31.55	408,863	39.41	833	.40	
2,305	1,150	582	97.03	50.25	54.99	4.47	11.33	71,301	40.74	27	.09	11
2,564	606	345	99.04	21.82	37.48	37.11	12.95	39,491	23.02	75	.29	12
1,593	331	157	97.71	31.50	48.01	35.45	17.12	75,313	34.15	81	.18	13
1,921	286	291	98.45	39.34	42.49	3.28	23.80	95,845	30.01	109	.20	14
708	532	18	97.91	77.10	32.11	3.38	2.54	36,718	21.93	73	.22	15
7,791	3,305	1,105	97.97	49.44	42.10	3.47	14.20	308,863	33.02	365	.20	
6,324	1,957	1,040	99.01	35.69	51.05	2.43	13.94	98,697	50.93	154	.32	16
254	100	14	93.71	41.67	40.89	1.71	5.51	30,209	44.55	6	.05	17
5,892	2,600	953	93.35	51.55	34.03	6.10	16.43	25,403	40.90	...	.03	18
410	105	56	95.74	25.84	35.13	3.51	13.65	65,422	31.55	29	.11	19
1,335	323	269	97.67	54.25	39.82	6.49	19.47	32,737	25.90	141	.34	20
786	308	...	93.43	42.43	42.33	...	...	8,755	37.70	...	...	21
15,511	5,799	2,432	97.77	44.00	42.57	29.28	15.55	166,384	37.25	341	.25	
1,374	653	101	98.55	59.52	35.89	34	7.93	72,921	42.90	145	.43	22
111	34	19	96.50	30.95	25.41	8.37	17.12	11,899	22.05	...	...	23
28	1	1	97.79	8.70	23.75	4.0	3.57	35,458	39.71	...	...	24
10	6	...	99.55	60.00	21.55	2.65	...	12,458	24.75	...	...	25
232	151	23	93.03	75.57	17.19	3.08	9.48	8,955	20.93	...	...	26
...	...	...	89.94	...	34.33	1.17	...	...	...	...	...	27
1,655	565	143	97.93	57.21	28.94	1.73	8.54	144,807	34.51	...	...
490	251	31	95.61	56.55	30.31	.44	6.28	80,129	33.75	120	.35	28
7,095	4,923	549	99.21	75.84	53.22	.86	7.74	97,715	62.02	31	.10	29
812	561	...	98.77	69.09	35.09	.08	...	58,343	36.91	11	.04	30
193	125	5	96.92	32.93	44.82	30.20	2.39	45,092	49.34	...	...	31
8,590	5,910	555	98.45	73.82	43.07	.97	6.81	258,979	44.71	163	.17	
597	391	34	95.24	69.45	42.19	3.20	5.70	43,608	39.15	45	.13	32
5,754	685	253	90.84	11.88	33.41	4.55	4.55	90,397	41.74	85	.09	33
179	97	15	93.19	59.15	32.17	1.62	8.68	47,823	30.34	42	.15	34
170	41	4	93.04	24.70	33.85	1.20	2.85	77,624	47.71	78	.22	35
6,730	1,185	315	97.30	18.48	35.61	3.65	4.70	264,352	41.51	195	.15	
357	102	152	93.43	49.75	24.93	5.25	42.58	42,743	30.55	33	.12	36
154	59	19	95.25	47.62	37.45	5.12	15.29	54,943	35.74	48	.15	37
45	25	4	99.54	61.90	33.83	1.55	8.70	26,040	35.82	15	.11	38
211	152	25	95.02	31.72	23.58	5.23	11.85	67,945	31.38	41	.09	39
739	330	209	97.79	61.34	29.55	5.03	27.10	191,671	32.99	138	.12	
940	591	349	98.11	100.00	10.95	14.51	37.13	20,848	9.09	...	...	40
765	438	67	97.87	62.75	13.13	4.01	8.75	102,671	22.85	...	...	41
1,705	1,029	415	73.82	79.83	15.51	8.58	24.40	123,719	18.21	...	...
904	141	52	99.10	92.75	17.67	25.73	25.49	9,317	15.59	...	...	42
62,591	25,535	10,951	95.88	49.74	34.55	4.12	17.50	2,185,470	35.28	2,891	.24	

Vaccination which are shown separately in Statement III. agencies included. included, and population of the Pakokko Chin Hills.

APPENDICES.

Summary.

(1)	Total number of persons vaccinated.		Total number of operations performed.		Percentage of successful cases in which results were known.		Average number of persons vaccinated by each vaccinator.		Number of children successfully vaccinated.		(12)	(13)	(14)
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One year and under six years.			
By special staff (Statement I).	427,078	62,267	428,712	62,267	95.92	69.59	308	1,607	123,382	214,825	34.81	R. A. P. 2,21,314 7 0	R. A. P. 0 8 6
By dispensary staff (Statement III).	1,523	1,263	1,504	1,263	95.40	70.98	...	...	822	720	.15	...	...
By other agencies, if any.	705	324	705	324	85.67	75.43	...	...	156	212	.05	...	...
Total ...	430,206	63,854	430,941	63,854	95.87	80.03	205	1,607	123,830	215,757	34.71	...	...

A.—VACCINATION

STATEMENT No. II—Showing the cost of the Department in the

No.	Districts.	European supervising officers.	EXPENDITURE.									
			Pay.	Native supervising officers.	Pay.	Vaccinators.	Pay.	Clerks.	Pay.	Fees, etc.	Pay.	Total pay of establishment.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
ARAKAN DIVISION.												
1	Akyab ...	2	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.
2	Hill Tracts, Northern Arakan...	2	1,140 0 0	19	3,390 1 7	...	...	...	...	...	...	4,480 1 7
3	Kyaukpadaung ...	1	650 0 0	6	1,974 13 11	...	...	...	...	...	...	2,624 13 11
4	Sandoway ...	1	900 0 0	4	930 7 8	...	...	...	...	...	...	1,830 7 8
	Total ...	4	2,690 0 0	24	6,371 6 9	...	...	...	...	...	...	9,211 6 9
PEGO DIVISION.												
5	Rangoon ...	1	1,200 0 0	15	1,615 2 9	...	...	...	...	4	672 0 0	3,507 2 9
6	Insein ...	2	1,800 0 0	6	1,387 9 9	...	...	...	...	...	...	3,187 9 9
7	Hanthawaddy ...	3	945 0 0	8	3,806 0 0	...	...	...	...	...	...	4,751 0 0
8	Pegu ...	2	1,500 0 0	8	3,315 1 0	...	...	...	...	...	...	5,015 1 0
9	Tharrawaddy ...	6	1,385 0 0	8	2,366 8 2	...	...	...	...	...	...	3,751 8 2
10	Prome ...	1	1,200 0 0	12	3,922 15 0	...	...	...	...	...	...	5,122 15 0
	Total ...	13	7,605 0 0	57	18,772 4 8	...	...	...	...	4	672 0 0	27,449 4 8
IRRAWADDY DIVISION.												
11	Maubin ...	3	1,440 0 0	9	2,182 3 7	...	...	...	...	...	...	3,622 3 7
12	Pyawon ...	3	765 0 0	6	1,949 0 0	...	...	...	...	...	...	2,714 0 0
13	Bassein ...	2	840 0 0	9	2,853 2 5	...	...	...	...	...	...	3,693 2 5
14	Henzada ...	3	921 10 10	14	4,659 13 8	...	...	...	...	...	...	5,580 13 8
15	Myaungmya ...	3	780 0 0	8	1,931 10 8	...	...	...	...	...	...	2,711 10 8
	Total ...	14	4,746 10 10	46	13,565 13 1	...	...	...	...	...	...	18,135 13 1
TENASSERIM DIVISION.												
16	Amherst ...	4	1,620 0 0	10	3,069 10 6	...	...	...	...	...	...	4,689 10 6
17	Tavoy ...	1	701 8 0	6	1,811 0 8	...	...	...	...	...	...	2,512 8 8
18	Mergui ...	1	807 8 0	13	1,982 9 8	...	...	...	...	...	...	2,790 8 8
19	Toungoo ...	2	672 9 7	9	2,783 0 7	...	...	...	...	...	...	3,455 9 7
20	Thaton ...	1	1,040 15 6	7	2,078 12 1	...	...	...	...	...	...	3,118 12 1
21	Salween ...	...	...	2	577 1 10	...	...	...	...	...	...	577 1 10
	Total ...	9	4,882 9 1	47	13,541 3 4	...	...	...	...	...	...	17,132 3 4
MANDALAY DIVISION.												
22	Mandalay ...	1	662 8 0	14	7,283 11 2	...	...	...	...	...	...	7,945 11 2
23	Bhamo ...	...	...	4	1,401 6 11	...	...	...	...	...	...	1,401 6 11
24	Katha ...	1	600 0 0	4	1,128 11 9	...	...	...	...	...	...	1,728 11 9
25	Ruby Mines ...	1	1,355 0 0	3	1,313 0 0	...	...	...	...	...	...	2,668 0 0
26	Myittha ...	...	...	2	952 15 5	...	...	...	...	...	...	952 15 5
27	Putao ...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	3	3,017 8 0	27	12,019 13 3	...	...	...	...	...	...	15,036 13 3
SAGAING DIVISION.												
28	Sa-webo ...	1	600 0 0	8	2,651 4 0	...	...	...	...	...	...	3,251 4 0
29	Sagaing ...	1	900 0 0	7	2,108 5 1	...	...	...	...	...	...	3,008 5 1
30	Lower Chindwin ...	1	1,500 0 0	6	1,932 5 5	...	...	...	...	...	...	3,432 5 5
31	Upper Chindwin ...	1	734 7 7	0	2,658 13 0	...	...	...	...	...	...	3,392 7 7
	Total ...	4	3,734 7 7	21	9,349 11 6	...	...	...	...	...	...	12,083 11 6
MAGWE DIVISION.												
32	Thayetmyo ...	2	1,320 0 0	8	2,668 15 2	...	...	...	...	...	...	3,988 15 2
33	Pakokku ...	1	1,350 0 0	10	3,181 2 7	...	...	...	...	1	216 0 0	4,537 2 7
34	Minbu ...	2	721 0 0	7	1,967 0 0	...	...	...	...	...	...	2,688 0 0
35	Magwe ...	2	1,009 4 11	8	2,464 11 2	...	...	...	...	...	...	3,473 4 11
	Total ...	7	4,300 4 11	33	10,278 12 11	...	...	...	...	1	216 0 0	14,742 12 11
MEIKTILA DIVISION.												
36	Meiktila ...	1	343 4 0	6	1,638 5 5	...	...	...	...	...	...	1,981 9 5
37	Yamethin ...	2	1,045 0 0	7	2,132 14 10	...	...	...	...	...	...	3,177 14 10
38	Kyaukse ...	1	650 0 0	3	1,032 0 0	...	...	...	...	...	...	1,682 0 0
39	Myingyan ...	3	1,055 0 0	7	2,059 7 0	...	...	...	...	...	...	3,114 7 0
	Total ...	7	3,093 4 0	23	6,861 11 3	...	...	...	...	...	...	9,654 11 3
SHAN STATES.												
40	Northern Shan States ...	1	440 0 0	10	3,346 4 2	...	...	...	...	...	...	3,786 4 2
41	Southern Shan States ...	5	1,425 0 0	11	5,702 2 2	...	...	...	7	1,806 12 8	...	8,993 14 10
	Total ...	6	1,865 0 0	21	9,048 6 4	...	...	...	7	1,806 12 8	...	12,785 6 4
42	Chio Hills ...	...	...	3	837 10 0	...	...	...	...	...	...	837 10 0
43	Meiktila Vaccine Depot ...	1	1,800 0 0	1	1,700 0 0	...	† 984 2 7	...	1,914 5 8	11	1,697 12 0	8,155 4 8
44	Office of the S. G. V., Burma...	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL ...	1	1,800 0 0	170	37,392 12 5	308	93,443 15 8	2	1,914 5 8	23	4,392 8 8	1,44,843 10 5

* The average cost in this column is calculated on the total number of successful

† This amount represents stipendiary allowance

‡ Cost of medicines and instru
three Head Vaccinators in Southern Shan States.

DEPARTMENT.

Province of Burma during the year 1917-18 (Paragraph 17).

Travelling allowance.	Contingen- cies.	Total cost.	PAID FROM					Total.	Number of all success- ful vaccinations and re-vaccinations.	Average cost of each successful case.*	No.
			Imperial Funds.	Provincial Funds.	Local Funds.	Municipali- ties.	Native States.				
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
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.	
2,498 5 0	32 12 0	6,561 2 7	.....	.....	6,085 2 7	876 0 0	.....	6,961 2 7	16,013	0 6 11	1
413 12 6	25 10 0	1,153 6 6	.....	1,153 6 6	.....	.....	.....	1,153 6 6	544	2 2 1	2
1,825 12 6	33 15 6	3,735 9 11	.....	.....	3,691 9 11	145 0 0	.....	3,736 9 11	6,390	0 9 4	3
623 8 0	.....	2,409 15 3	.....	.....	2,389 15 3	120 0 0	.....	2,509 15 3	3,987	0 11 2	4
5,160 6 0	94 5 6	11,366 2 3	.....	1,153 6 6	12,066 11 9	1,141 0 0	.....	13,306 2 3	21,534	0 8 8	5
231 5 6	3,062 12 4	6,321 4 7	.....	420 0 0	.....	6,401 4 7	.....	6,321 4 7	9,638	0 11 4	6
3,085 1 9	50 11 6	2,244 7 0	.....	.....	2,603 7 0	630 15 3	.....	2,244 7 0	2,264	0 13 5	7
2,286 2 6	45 2 0	7,331 4 6	.....	.....	7,331 4 6	480 0 0	.....	7,331 4 6	10,269	0 12 8	7
4,992 14 0	85 4 0	7,993 2 1	.....	.....	7,993 2 0	900 0 0	.....	7,993 2 0	12,515	0 10 3	8
1,981 14 0	100 0 0	5,593 6 2	.....	.....	4,338 6 2	1,600 0 0	.....	5,593 6 2	24,637	0 4 4	9
1,878 2 6	.....	7,001 1 6	.....	.....	5,621 1 6	1,380 0 0	.....	7,001 1 6	11,679	0 9 7	10
12,496 8 8	3,328 13 10	43,029 10 9	.....	420 0 0	51,077 6 11	16,513 3 10	.....	43,029 10 9	75,302	0 9 2	11
2,321 13 7	.....	5,944 0 2	.....	.....	5,942 2 2	641 14 0	.....	5,944 0 2	16,777	0 5 8	12
1,199 2 3	7 0 0	3,920 2 3	.....	.....	3,920 2 3	160 0 0	.....	3,920 2 3	9,602	0 6 6	13
1,624 13 0	.....	5,317 15 5	.....	.....	4,417 15 5	900 0 0	.....	5,317 15 5	18,265	0 4 6	14
2,274 14 6	.....	7,669 5 9	.....	.....	6,454 5 3	1,215 0 0	.....	7,669 5 9	22,617	0 5 8	15
1,419 5 4	138 6 0	4,289 6 0	.....	.....	3,611 12 9	657 9 3	.....	4,289 6 0	10,753	0 8 4	16
8,831 15 8	145 6 0	27,120 13 7	.....	.....	22,746 5 10	4,374 7 9	.....	27,120 13 7	78,714	0 5 6	17
2,000 0 0	243 5 3	6,368 15 9	.....	.....	5,669 14 0	1,397 1 9	.....	6,368 15 9	18,794	0 5 10	18
1,402 2 0	162 0 0	4,075 10 8	.....	.....	3,470 10 8	605 0 0	.....	4,075 10 8	5,332	0 11 9	19
1,843 6 6	5 4 0	4,839 12 2	.....	.....	4,061 0 8	628 11 6	.....	4,839 12 2	9,233	0 8 0	20
1,793 13 0	21 6 0	6,340 13 2	.....	.....	4,353 1 1	887 12 1	.....	5,340 13 2	12,333	0 6 10	21
2,431 13 0	31 8 0	5,638 5 7	.....	.....	4,337 11 1	700 2 6	.....	5,638 5 7	12,853	0 7 0	22
57 4 0	.....	934 5 10	.....	335 0 1	619 5 8	.....	.....	934 5 10	1,973	0 7 9	23
9,848 6 6	484 7 8	27,466 10 2	.....	335 0 1	23,411 14 2	3,719 11 10	.....	27,466 10 2	60,848	0 7 3	24
1,001 12 0	861 7 6	3,213 6 8	.....	2,576 2 10	.....	5,337 3 10	.....	3,213 6 8	12,219	0 12 1	25
6 0 6 0	4 15 0	2,616 11 11	.....	1,769 4 11	.....	567 7 0	.....	2,616 11 11	2,739	0 11 9	26
890 15 6	.....	2,619 11 3	.....	2,619 11 3	.....	.....	.....	2,619 11 3	8,203	0 7 11	27
1,056 15 2	.....	4,161 15 2	.....	3,592 7 2	.....	.....	572 8 0	4,161 15 2	4,399	1 14 4	28
634 10 9	.....	1,477 10 2	.....	1,477 10 2	.....	.....	.....	1,477 10 2	1,471	1 0 1	29
.....	.....	.....	.....	.....	.....	.....	.....	.....	1,061	.....	30
4,037 11 5	337 6 6	19,491 7 2	.....	19,975 4 4	.....	5,944 10 10	573 8 0	19,492 7 2	25,000	0 12 6	31
1,396 3 0	14 1 0	4,861 8 0	.....	4,529 8 0	.....	322 0 0	.....	4,861 8 0	12,847	0 6 1	32
1,600 0 0	.....	4,603 5 1	.....	4,394 5 1	.....	209 0 0	.....	4,603 5 1	12,172	0 4 1	33
1,085 3 11	.....	4,217 9 4	.....	3,857 9 4	.....	360 0 0	.....	4,217 9 4	11,023	0 6 1	34
1,517 8 1	.....	4,900 12 8	.....	4,910 12 8	.....	.....	.....	4,900 12 8	7,647	0 10 3	35
5,798 15 0	14 1 0	15,583 3 1	.....	17,682 3 1	.....	891 0 0	.....	15,583 3 1	49,739	0 6 0	36
1,906 6 0	35 4 0	5,325 9 2	.....	.....	5,019 9 2	886 0 0	.....	5,325 9 2	10,475	0 9 1	37
2,409 10 6	.....	7,006 13 1	.....	6,646 13 1	.....	860 0 0	.....	7,006 13 1	16,444	0 7 3	38
907 14 6	.....	3,594 14 6	.....	2,884 14 6	.....	710 0 0	.....	3,594 14 6	8,491	0 6 9	39
1,050 8 0	28 15 0	4,563 7 1	.....	3,491 7 1	.....	1,029 0 0	.....	4,563 7 1	12,170	0 6 0	40
6,274 7 0	64 2 0	21,080 11 10	.....	13,028 2 8	5,039 9 2	3,015 0 0	.....	21,080 11 10	46,580	0 7 3	41
1,182 5 6	.....	3,167 14 11	.....	2,851 3 1	.....	316 11 10	.....	3,167 14 11	7,003	0 7 3	42
1,233 10 6	.....	4,411 9 4	.....	3,631 0 4	.....	780 9 0	.....	4,411 9 4	11,473	0 6 2	43
640 12 6	4 8 0	2,257 2 6	.....	2,257 2 6	.....	.....	.....	2,257 2 6	4,785	0 7 7	44
544 0 0	.....	3,658 7 0	.....	3,507 7 0	.....	851 0 0	.....	3,658 7 0	10,215	9 5 9	45
3,680 12 6	4 6 0	13,425 1 9	.....	11,546 12 11	.....	1,948 4 10	.....	13,425 1 9	32,478	0 6 6	46
2,976 0 0	9 15 0	5,772 3 2	.....	2,206 3 2	.....	.....	2,866 0 0	5,772 3 2	4,315	1 4 5	47
2,513 3 0	57 5 0	11,564 6 10	.....	9,224 10 10	.....	.....	2,320 12 0	11,564 6 10	16,318	0 11 4	48
5,489 3 0	67 4 0	17,380 10 0	.....	12,230 14 0	.....	.....	5,150 12 0	17,380 10 0	20,823	0 13 4	49
275 10 0	.....	1,168 4 0	.....	1,168 4 0	.....	.....	.....	1,168 4 0	2,112	0 8 10	50
546 8 8	9,225 15 11	17,928 12 5	.....	17,928 12 5	.....	.....	.....	17,928 12 5	.....	.....	51
.....	1151 0 0	151 0 0	.....	151 0 0	.....	.....	.....	151 0 0	.....	.....	52
68,865 7 7	14,002 5 0	2,21,214 7 0	.....	58,627 12 0	95,84 1 15 11	31,566 7 1	5,078 4 0	2,21,214 7 0	4,19,165	0 8 8	53

vaccinations and re-vaccinations by the special staff only.
 given to apprentice vaccinators.
 ments,
 Depot, Rangoon Municipality, one State official appointed by the Sgawwa of Heipaw, thirty-eight Native Superintendents of Vaccination and

B.—DISPENSARY

STATEMENT No. III—Showing Dispensary Vaccination in the

No.	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.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
ARAKAN DIVISION.						
1	Akyab	...	...	...	...	...
2	Hill Tracts, Northern Arakan	...	...	12	...	8
3	Kyaokpyu	...	...	43	...	9
4	Sandoway	...	...	21	...	13
	Total	...	...	76	...	30
PEGU DIVISION.						
5	Rangoon	...	...	...	...	...
6	Insein	...	...	...	...	...
7	Hanthawaddy	...	...	71	...	67
8	Pegu	...	...	...	...	...
9	Tharrawaddy	...	...	181	...	126
10	Prome	...	...	...	...	...
	Total	...	...	263	...	185
IRRAWADDY DIVISION.						
11	Maubin	...	...	151	...	51
12	Pyapön	...	...	...	...	...
13	Bassein	...	...	496	...	93
14	Henzada	...	...	99	...	...
15	Nyaungmya	...	...	231	...	170
	Total	...	...	977	...	244
TENASSERIM DIVISION.						
16	Amberst	...	...	106	...	98
17	Tatoy	...	...	...	...	...
18	Mergul	...	...	153	...	124
19	Yongsoo	...	...	...	...	...
20	Thaton	...	...	...	...	...
21	Solween	...	...	58	...	15
	Total	...	...	282	...	237
MANDALAY DIVISION.						
22	Mandalay	...	...	72	...	* 71
23	Ihama	...	...	...	...	...
24	Katha	...	...	10	...	89
25	Kuby Mines	...	...	...	...	...
26	Myitkyina	...	...	261	...	166
27	Putao	...	...	...	...	...
	Total	...	...	333	...	* 236
SAGAING DIVISION.						
28	Shwebo	...	...	18	...	17
29	Sagaing	...	...	98	...	19
30	Lower Chindwin	...	...	...	...	...
31	Upper Chindwin	...	...	247	...	177
	Total	...	...	363	...	213
MAGWE DIVISION.						
32	Thayetmyo	...	...	...	...	...
33	Pakokku	...	...	163	...	188
34	Minbu	...	...	...	...	...
35	Magwe	...	...	98	...	...
	Total	...	...	190	...	198
MEIKTILA DIVISION.						
36	Meiktila	...	...	27	...	20
37	Yamethin	...	...	...	...	...
38	Kyaukse	...	...	...	...	...
39	Myingyan	...	...	...	...	...
	Total	...	...	27	...	20
SHAN STATES.						
40	Northern Shan States	...	...	...	...	...
41	Southern Shan States	...	...	185	...	179
	Total	...	...	185	...	179
42	Chin Hills	...	...	51	...	43
	GRAND TOTAL	...	...	2,786	...	* 1,524

* Includes secondary

VACCINATION.

Province of Burma for the year 1917-18 (Paragraph 7).

PRIMARY VACCINATION.			RE-VACCINATION.			PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		No.	
Successful.			Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.	Primary.		Re-vaccination.
Under one year.	One and under six years.	Total of all ages.								(11)		(12)	(13)	(14)	(15)	(16)	(17)	(18)
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1	6	7	...	4	2	...	87.50	57.00	...	...	1
...	...	6	2	34	5	...	100.00	97.78	33.33	47.08	2
...	...	2	...	8	3	2	15.38	80.00	...	28.00	3
1	6	15	3	46	10	18	55.56	35.71	10.00	35.13	4
...	...	...	...	...	...	...	...	...	...	...	5
...	...	...	...	...	...	...	...	...	...	...	6
16	27	67	...	4	4	...	100.00	100.00	...	...	7
...	...	...	...	...	...	...	...	...	...	...	8
55	61	127	...	53	13	8	92.23	60.00	...	18.00	9
...	...	...	...	...	...	...	...	...	...	...	10
71	88	194	...	57	32	8	99.49	44.90	...	14.04	11
...	...	...	...	...	...	...	...	...	...	...	12
2	15	30	21	100	18	77	100.00	78.25	41.18	77.00	11
...	...	...	...	...	...	...	...	...	...	...	12
...	...	18	5	473	116	223	100.00	76.67	21.74	85.29	13
...	...	...	...	...	...	...	...	...	...	...	14
14	82	135	26	99	29	70	100.00	89.26	15.23	70.71	14
...	...	...	...	...	...	...	...	...	...	...	15
...	...	...	...	...	...	...	...	...	...	...	16
16	97	183	62	733	207	475	95.81	57.23	21.31	64.80	17
...	...	...	...	...	...	...	...	...	...	...	18
58	18	76	21	8	4	4	95.70	100.00	21.43	50.00	16
...	...	...	...	...	...	...	...	...	...	...	17
30	55	99	20	29	9	5	95.19	37.50	15.13	17.94	18
...	...	...	...	...	...	...	...	...	...	...	19
...	...	...	...	...	...	...	...	...	...	...	20
...	...	...	...	...	...	...	...	...	...	...	21
88	74	139	41	45	15	9	95.43	44.44	17.30	20.00	22
...	...	...	...	...	...	...	...	...	...	...	23
10	45	66	...	2	1	...	94.29	50.00	...	...	23
...	...	...	...	...	...	...	...	...	...	...	24
3	29	34	16	1	...	1	77.27	...	25.42	100.00	24
...	...	...	...	...	...	...	...	...	...	...	25
31	34	96	3	145	115	9	93.20	84.65	2.83	6.21	25
...	...	...	...	...	...	...	...	...	...	...	26
53	103	196	18	148	115	10	90.23	54.06	7.66	6.76	27
...	...	...	...	...	...	...	...	...	...	...	28
4	12	16	...	1	...	...	94.12	...	...	...	28
5	5	10	...	79	27	5	52.65	50.49	...	6.23	29
...	...	...	...	...	...	...	...	...	...	...	30
25	121	173	4	70	70	...	100.00	100.00	2.25	...	31
...	...	...	...	...	...	...	...	...	...	...	32
34	138	199	4	160	97	5	95.43	68.90	1.88	3.33	32
...	...	...	...	...	...	...	...	...	...	...	33
...	...	...	...	...	...	...	...	...	...	...	34
21	78	127	...	34	24	...	99.23	70.69	...	...	33
...	...	...	...	...	...	...	...	...	...	...	34
...	...	...	...	...	...	...	...	...	...	...	35
24	73	127	...	62	36	22	99.12	65.00	...	85.48	36
...	...	...	...	...	...	...	...	...	...	...	37
4	10	14	6	7	...	7	100.00	...	30.00	100.00	35
...	...	...	...	...	...	...	...	...	...	...	37
...	...	...	...	...	...	...	...	...	...	...	38
...	...	...	...	...	...	...	...	...	...	...	39
4	10	14	6	7	...	7	100.00	...	30.00	100.00	40
...	...	...	...	...	...	...	...	...	...	...	41
18	116	160	17	6	4	...	90.77	60.67	9.50	...	40
...	...	...	...	...	...	...	...	...	...	...	41
28	116	160	17	6	4	...	98.77	60.67	9.50	...	41
...	...	...	...	...	...	...	...	...	...	...	42
3	10	30	12	9	1	6	100.00	33.83	28.57	66.67	42
...	...	...	...	...	...	...	...	...	...	...	43
332	730	1,207	153	1,263	499	549	93.40	70.93	10.05	44.94	43

COMPARATIVE STATEMENT NO. IV—Showing the number of persons primarily vaccinated Burma in each of the under

Establishments.	PERSONS 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.
	1908-09.		1909-10.		1910-11.		1911-12.		1912-13.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Government	147,188	131,451	178,334	177,819	142,512	132,535	165,142	158,306	184,794	174,075
Municipal	43,072	38,908	45,573	44,057	37,145	32,308	44,033	40,089	35,714	34,275
Local Funds	138,167	123,307	112,135	90,744	154,649	148,481	193,961	180,546	180,253	171,917
Native States	6,901	5,202	10,061	6,681	13,177	10,462	11,357	9,194	8,662	7,816
Dispensary	7,562	5,287	5,475	4,204	8,988	7,304	5,768	5,431	5,966	5,618
Other Agencies	...	...	...	...	...	...	...	...	...	...
ARMY.										
Europeans	37	35	68	56	102	62	47	40	62	59
Natives	455	306	306	269	190	183	288	338	464	293
Total	343,469	306,645	351,872	323,630	355,073	325,285	421,704	393,944	432,015	393,798

STATEMENT NO. V—Showing particulars of Vaccination verified

No.	Districts.	TOTAL NUMBER INSPECTED					
		TOTAL NUMBER OF PERSONS VACCINATED.		By Deputy Sanitary Commissioner or Civil Surgeons.		By Native Superintendents or other Inspecting Officers.	
		Primary.	Re-vaccinations.	Primary.	Re-vaccinations.	Primary.	Re-vaccinations.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Akyab	17,526	1,717	663	8	8,517	1,345
2	Hill Tracts Northern Arakan	701	95	...	...	94	19
3	Kyaukpadaung	7,078	183	1,005	42	5,143	73
4	Sandoway	4,896	595	776	...	2,230	300
5	Rangoon	6,627	11,674	1,069	680	4,364	6,700
6	Insein	10,015	832	1,326	157	8,423	428
7	Hanthawaddy	11,024	1,716	1,040	240	7,984	790
8	Pegu	10,827	1,073	1,040	32	11,940	910
9	Therawaddy	20,895	584	2,953	42	10,486	40
10	Prome	19,439	1,201	1,838	16	4,737	917
11	Ma-ubin	16,909	2,406	2,834	184	8,048	1,064
12	Pyawb	9,528	4,664	976	235	3,875	819
13	Bassein	19,264	1,565	680	82	8,311	682
14	Henzada	23,023	1,180	1,576	76	6,112	1,668
15	Myaungmya	10,647	769	235	...	6,515	386
16	Amherst	17,626	6,832	3,466	358	8,049	2,341
17	Tavoy	6,563	284	1,716	78	2,541	139
18	Mergal	7,964	5,831	492	239	4,004	2,430
19	Toungoo	14,824	410	807	3	6,183	80
20	Thatou	13,166	1,895	2,520	239	6,940	624
21	Salween	1,796	734	27	18	49	18
22	Mandalay	11,834	1,276	405	...	7,820	277
23	Bhamo	3,069	111	724	45	305	16
24	Katha	5,503	89	1,499	...	4,420	65
25	Ruby Mines	2,268	10	1,368	1	2,294	7
26	Myittha	1,471	377	221	245	1,260	132
27	Putao	1,197	...	896	...	...	...
28	Shwabo	12,837	491	304	...	7,432	182
29	Sagaing	18,423	7,171	960	780	10,337	4,731
30	Lower Chindwin	10,664	812	5,942	301	9,422	673
31	Upper Chindwin	8,187	263	210	...	4,063	184
32	Thayetmyo	10,285	897	689	78	7,976	301
33	Pakokko	16,143	8,313	2,374	444	6,047	1,462
34	Minbu	8,690	179	1,442	137	5,569	81
35	Magwe	12,895	193	1,750	28	8,797	21
36	Mektila	7,418	364	483	15	7,930	195
37	Yamethin	13,827	134	1,484	...	8,675	43
38	Kyaukse	4,857	46	1,523	46	4,349	46
39	Myingyan	11,128	211	4,534	20	6,917	68
40	Northern Shan States	19,723	940	606	...	1,231	69
41	Southern Shan States	17,683	771	166	...	6,579	111
42	Chin Hills	9,720	913	329	3	...	...
GRAND TOTAL		430,308	63,854	54,226	4,735	280,574	92,708

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

MILY 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.	Establishments.
1913-14.		1914-15.		1915-16.		1916-17.		1917-18.		
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
171,808	158,622	166,633	150,129	149,968	133,601	155,431	144,836	145,824	143,536	Government.
83,098	31,476	38,005	30,815	32,795	31,123	38,123	31,760	23,500	30,928	Municipal.
210,401	192,887	192,408	175,416	198,454	184,045	213,420	200,118	227,408	212,064	Local Funds.
6,826	6,751	2,944	2,172	3,390	2,203	10,891	10,085	11,186	7,153	Native States.
3,879	3,077	1,704	1,509	2,849	2,335	2,499	2,320	1,523	1,307	Dispensary.
...	...	7,514	6,879	7,341	5,520	2,314	878	705	402	Other Agencies.
...	...	...	...	...	...	...	...	...	...	ARMY.
69	64	42	80	25	25	10	10	12	11	Europeans.
255	224	353	174	655	513	597	512	415	345	Natives.
425,830	392,111	404,838	367,184	395,471	355,565	423,185	393,459	437,633	396,774	Total.

by Inspecting Officers during the year 1917-18 (Paragraph 6).

PERCENTAGE OF INSPECTIONS TO TOTAL NUMBER VACCINATED				PERCENTAGE OF CASES FOUND SUCCESSFUL OF TOTAL NUMBER INSPECTED				PERCENTAGE OF SUCCESS REPORTED BY VACCINATORS.		No.
By Deputy Sanitary Commissioner or Civil Surgeons.		By Native Superintendents or other Inspecting Officers.		By Deputy Sanitary Commissioner or Civil Surgeons.		By Native Superintendents or other Inspecting Officers.				
Primary.	Re-vaccinations.	Primary.	Re-vaccinations.	Primary.	Re-vaccinations.	Primary.	Re-vaccinations.	Primary.	Re-vaccinations.	(19)
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
9.14	47	47.94	72.68	59.15	60	93.63	29.09	94.04	76.53	1
...	...	13.41	20.00	...	...	62.15	31.58	75.58	43.18	2
14.20	22.95	72.55	39.34	84.88	16.67	67.76	25.00	93.27	41.94	3
15.66	...	49.95	50.42	94.20	...	77.56	14.67	80.31	13.90	4
16.03	4.90	64.34	57.29	99.81	38.21	69.91	61.89	99.52	60.00	5
13.94	19.28	84.10	61.33	99.07	12.10	99.61	23.33	99.17	39.14	6
9.02	13.99	72.42	45.94	95.19	62.50	97.93	57.97	97.89	53.55	7
8.11	2.93	98.08	83.25	97.12	68.75	91.31	41.92	98.55	65.90	8
14.13	7.19	60.18	6.83	99.66	100.00	98.22	70.00	98.90	35.50	9
14.75	1.23	39.03	78.95	91.08	100.00	95.49	30.32	94.71	38.40	10
16.79	7.65	47.60	49.81	95.98	85.83	93.81	38.59	97.03	56.25	11
10.23	8.82	40.43	30.74	93.58	50.64	97.83	22.47	99.04	21.82	12
3.58	5.94	42.62	41.73	93.48	64.63	88.31	47.17	97.71	91.93	13
7.09	2.32	23.27	94.45	95.87	100.00	85.75	50.23	95.45	89.24	14
2.68	...	62.13	45.22	98.60	...	97.45	84.27	97.91	77.10	15
19.75	5.48	45.93	85.84	99.05	41.62	98.61	37.85	99.01	35.09	16
30.84	29.58	45.66	54.72	85.85	48.00	97.91	51.80	99.71	41.67	17
6.19	4.10	60.34	43.10	90.24	26.78	85.89	69.15	93.05	51.56	18
2.39	7.3	40.38	20.98	99.02	100.00	98.22	31.48	94.74	90.84	19
19.67	15.26	45.12	82.93	94.58	43.94	98.03	51.92	97.57	54.25	20
1.50	3.45	3.73	2.45	95.80	27.78	97.08	33.33	93.49	42.42	21
3.40	...	68.67	21.71	95.77	...	97.85	44.77	99.65	56.22	22
23.67	40.54	9.97	14.41	98.96	83.33	93.44	43.75	98.60	36.90	23
27.24	...	81.69	86.22	77.85	...	87.84	16.00	97.79	3.70	24
60.51	10.60	89.72	70.00	72.97	100.00	94.76	37.14	99.96	60.00	25
15.02	64.39	84.98	35.01	98.38	72.21	95.44	75.00	99.03	78.67	26
34.08	...	...	...	95.45	...	...	...	89.94	...	27
1.59	...	57.95	37.07	99.02	...	99.07	57.69	98.61	56.98	28
7.04	10.45	76.52	85.95	95.79	78.00	28.60	78.21	99.21	75.94	29
55.79	37.07	85.92	70.44	96.96	78.74	97.15	67.83	98.77	69.09	30
2.57	...	49.69	58.18	90.48	...	93.76	85.38	95.23	82.99	31
6.12	12.86	2.92	50.12	92.85	100.00	94.41	56.15	95.24	69.43	32
14.71	7.68	37.47	24.96	99.07	15.02	98.25	15.18	96.94	11.80	33
16.69	76.84	63.67	17.33	98.13	69.12	97.82	67.74	99.19	69.15	34
14.12	19.19	46.77	10.61	93.97	78.98	95.79	63.58	99.04	24.70	35
6.51	4.13	39.54	83.58	97.73	66.67	95.85	37.29	95.49	42.75	36
12.06	...	70.90	34.65	96.90	...	97.88	22.66	99.20	41.62	37
21.54	100.00	69.54	100.00	85.94	78.26	85.05	26.36	99.64	61.90	38
48.44	14.22	62.25	22.28	95.25	30.00	94.54	33.82	96.03	81.72	39
9.95	...	10.01	7.34	85.21	...	100.00	69.57	98.11	100.00	40
0.97	...	89.10	14.40	80.72	...	97.02	71.17	97.57	62.75	41
19.10	1.41	...	...	99.99	33.25	...	...	99.10	92.76	42
12.60	7.42	83.55	40.82	94.03	62.98	94.83	58.12	93.88	49.74	

APPENDIX A.

Statement showing the ratio per 10,000 successfully vaccinated and the mortality from small-pox by quinquennial periods for Lower Burma only.

Official year.	Ratio per 10,000 successfully vaccinated.	Quinquennial mean.	Calendar year.	Ratio per 10,000 of mortality from small-pox.	Quinquennial mean.
(1)	(2)	(3)	(4)	(5)	(6)
1903-08	207.25	338.72	1903	2.91	6.68
1903-04	240.71		1903	2.38	
1904-06	312.68		1904	2.45	
1905-06	374.28		1905	10.48	
1906-07	357.65		1906	14.59	
1907-08	294.98	1907	2.67	3.81	
1908-09	223.24	1908	1.29		
1909-10	300.97	1909	1.57		
1910-11	288.91	1910	3.27		
1911-12	298.05	1911	9.13		
1912-13	360.86	369.04	1912	9.61	2.88
1913-14	350.31		1913	2.87	
1914-15	333.06		1914	.59	
1915-15	300.44		1915	.53	
1916-17	464.05		1916	1.06	
1917-18	389.20	1917	.69		

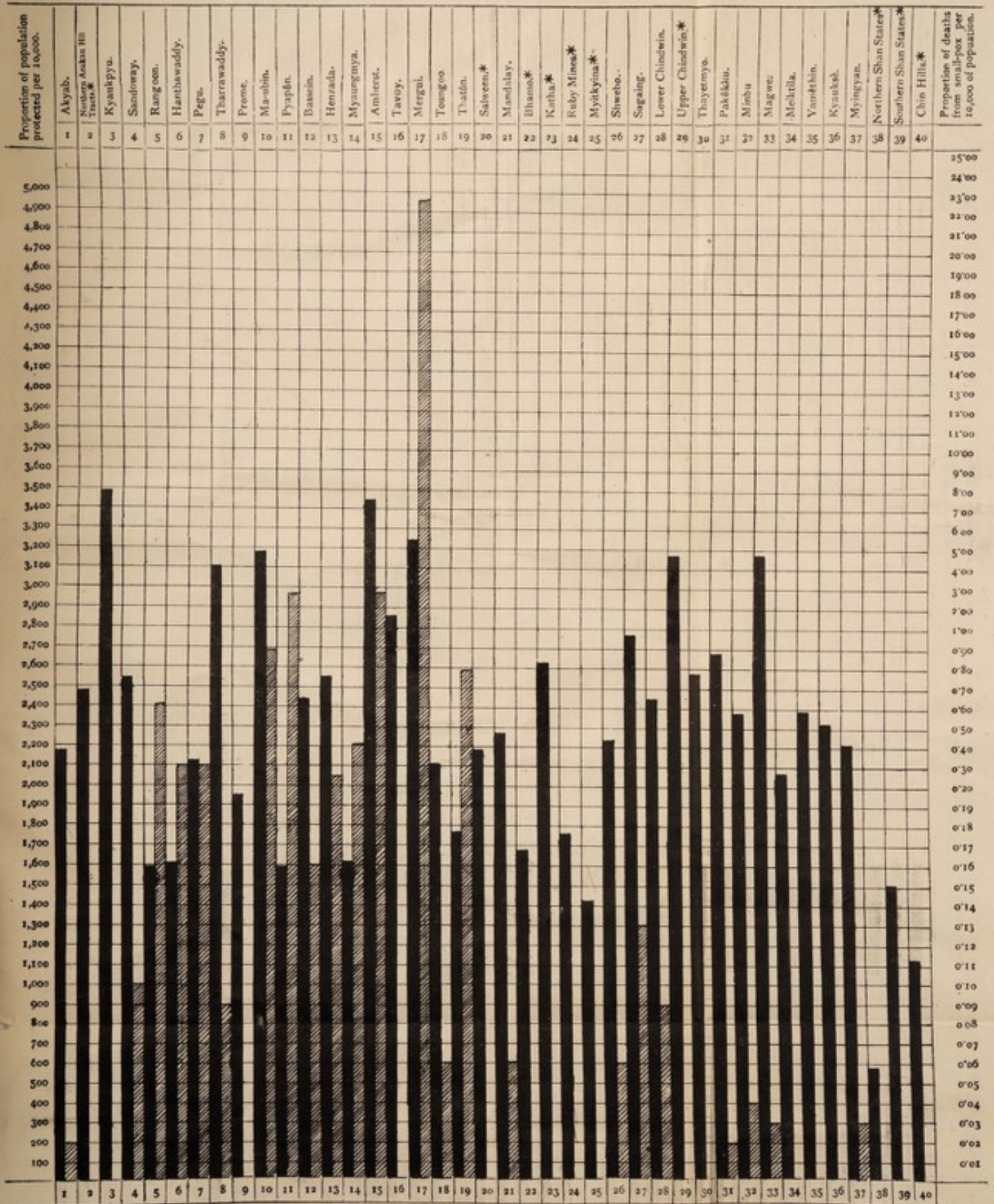
APPENDIX B.

Statement showing the number of vaccinations performed in Municipal towns and notified areas (to which Vaccination Act has been extended) on children under one year of age (Paragraph 9).

Towns.	Number of births during the year 1917-18.	Number of deaths among children under one year during the year 1917-18.	Number of successful operations on children under one year during the year ending 31st March 1918.	Date of extension of Vaccination Act into towns.
(1)	(2)	(3)	(4)	(5)
Akyab	670	190	492	August 1883.
Kyaukpada	76	8	44	April 1891.
Sandoway	115	15	48	September 1890.
Rangoon	6,188	1,800	3,534	April 1884.
Insein	231	78	244	14th March 1912.
Syriam	220	60	139	20th January 1912.
Thongwa	272	83	214	2nd March 1914.
Pegu	446	124	423	March 1893.
Nyaung-U	219	94	180	29th March 1910.
Tada-U	255	65	178	October 1897.
Zagun	224	68	161	11th May 1914.
Letpadan	224	80	114	January 1897.
Gyobingauk	249	103	194	February 1897.
Minhla	89	27	36	11th May 1914.
Nattalin	143	29	74	11th May 1914.
Prome	780	138	513	June 1890.
Shwedaung	256	79	193	10th September 1917.
Paung-oh	407	134	230	August 1890.
Ma-ubin	212	46	163	October 1891.
Yandoon	204	49	176	January 1892.
Dawbya	170	36	114	9th July 1894.
Pypin	196	39	125	November 1901.
Kyauktat	223	44	162	15th December 1904.
Basseln	979	368	535	September 1888.
Nyaung-Ugyaung	194	49	99	February 1890.
Henzada	757	194	351	January 1889.
Myansong	251	41	249	July 1889.
Kyangin	260	62	116	August 1894.
Myaungmya	158	31	71	June 1894.
Wakama	283	48	235	27th April 1907.
Meiktilin	1,372	283	1,277	August 1888.
Kawkaik	167	50	88	17th September 1914.
Tavoy	936	244	792	December 1889.
Mergui	485	119	434	October 1891.
Thaton	326	127	166	October 1891.
Kyaukse	179	27	116	March 1897.
Toungoo	552	149	339	May 1889.
Shwegyin	137	40	125	January 1890.
Mandaly	5,449	2,127	3,414	August 1891.
Maymye	314	119	192	October 1912.
Bhamo	148	28	100	26th October 1891.
Shwebo	312	94	178	June 1894.
Sagaing	458	114	196	April 1891.
Monywa	350	107	236	March 1893.
Thayetmye	287	91	236	May 1889.
Allanmye	21	48	209	May 1901.
Pakkaik	620	140	509	April 1892.
Mihau	220	40	144	March 1896.
Sain	225	42	167	March 1896.
Magwe	229	70	110	10th March 1912.
Taungthaingyi	255	110	98	February 1893.
Meiktila	197	49	149	10th March 1913.
Yamethin	261	101	183	June 1908.
Pyanmana	323	123	281	February 1892.
Prawba	443	167	308	November 1891.
Kyaukse	140	68	118	May 1912.
Kyaukse	254	69	129	May 1894.
Myingyan	609	174	451	September 1891.
Total	20,224	9,174	20,228	

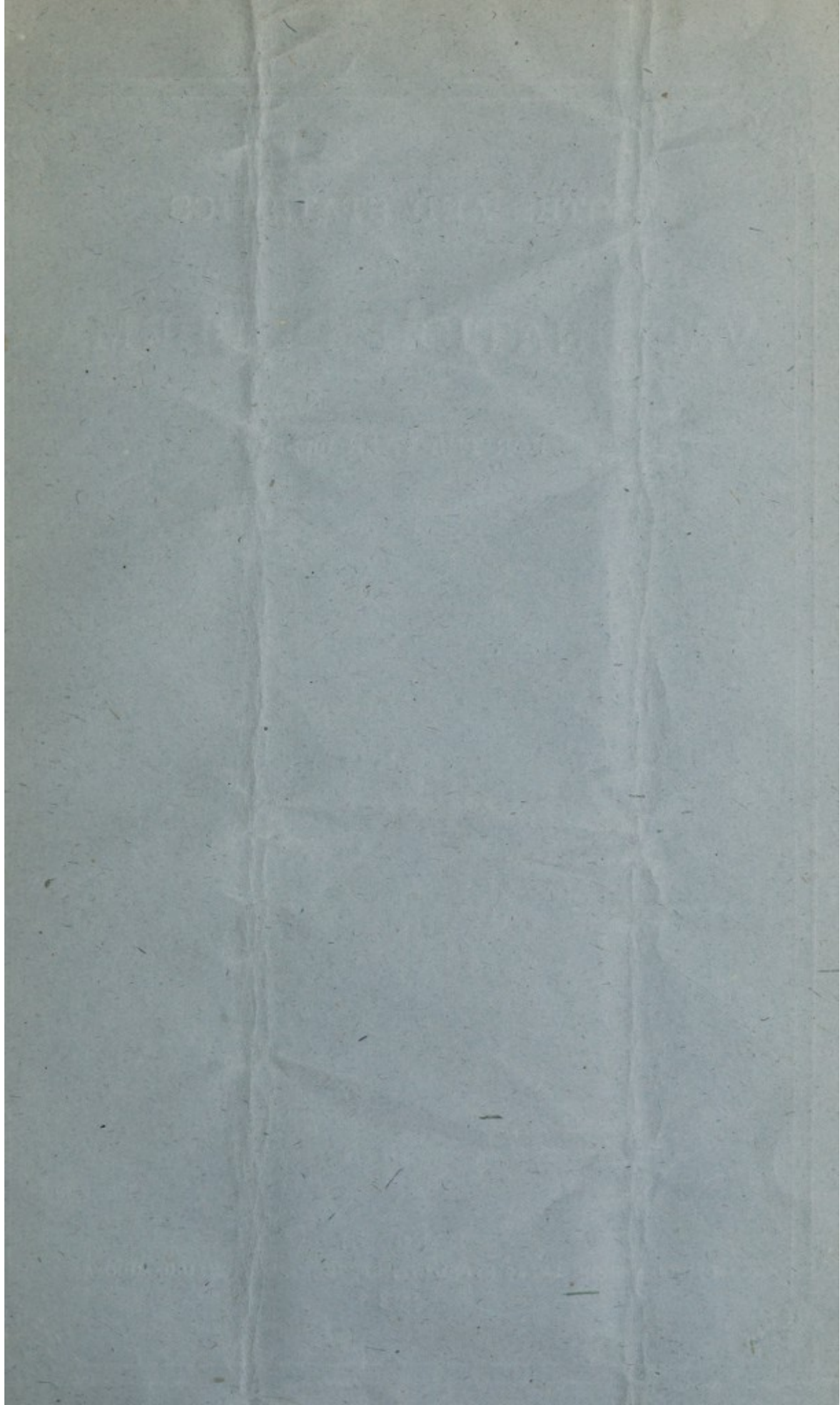
APPENDIX C.

Diagram showing the Proportion of Population protected during the seven officials years from 1911-12 to 1917-18 and the Death-rate from Small-pox during the calendar year 1917 in districts where registration is in force.



■ Indicates proportion of population protected per 10,000.
 ▨ Indicates ratio of deaths from Small-pox per 10,000 of population.

* Registration of vital statistics is not carried out in these districts.



NOTES AND STATISTICS
ON
VACCINATION IN BURMA

FOR THE YEAR 1917-18



RANGOON
OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA
1918