SIXTEENTH ANNUAL REPORT

SANITARY BOARD
6 MAR 1907
MADRAS.

OF THE

SANITARY COMMISSIONER

FOR

MADRAS,

1879.

WITH

APPENDICES

CONTAINING

VACCINATION REPORT AND VITAL STATISTICAL TABLES OF THE GENERAL POPULATION.

MADRAS:
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1880.

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SANITARY BOARD 6 - MAR. 1902 MADRAS.

SIXTEENTH ANNUAL REPORT

OF THE

SANITARY COMMISSIONER FOR MADRAS

1879.

SECTION I.

GENERAL POPULATION.

RAINFALL.

ALTHOUGH it will be seen from the appended tables that the rainfall during 1879 did not equal that of 1877 or 1878, it far surpassed that of the unfortunate year 1876, and nearly reached the average of the rainfall for the six years ending 1875. In point of quantity it was as 44 to 46 inches (average of five years), but in number of days it slightly exceeded the average, being 64 to 63.

2. Out of the twenty districts from which returns have been received we find in twelve the quantity of rain which fell was less than the average for the six years ending 1875 and in eight somewhat more. But if we take the number of days on which rain fell the figures are exactly reversed. Rain fell on a larger number of days in twelve districts and less than the average in eight only. The probability is that the rainfall of 1879 was more equally distributed.

3. Taking the districts more in detail we find that in South Canara the south-west monsoon was less in 1879 than in 1878, but quite equal to the average of the six years ending 1875; in fact the figures are almost identical, 143·35 to 143·51 inches (average). The number of days, however, on which it rained was higher, 149 to 127. In Malabar the total rainfall was a little less, 104·96 to 113·73 inches, although here again the number of days on which rain fell is somewhat higher, 141 to 125. Looking to the stations west of the ghâts the rainfall seems to have been somewhat capricious, a little less than the average: in Bellary 24 to 25 inches, in Cuddapah 26 to 32 inches, and in Kurnool 24 to 30 inches. But in Kistna it compares favorably, 38 inches to the average 32. The number of days on which rain fell being identical, 53.

4. In the northern districts Ganjam, Vizagapatam, and Godávari the rainfall seems to have been also somewhat irregular. In Vizagapatam it exceeded the average very slightly as regards quantity, but more so as regards the number of days, 61 to 52. In Ganjam and Godávari it was less as regards quantity in both districts, but the days in Ganjam were as 65 to 64, in Godávari 46 to 53. In all these northern districts the rainfall was considerably less than in 1878, which, however, as pointed out in the last annual report, was an exceptional year owing to cyclonic disturbances.

5. The rainfall of 1879 would seem to bear out the statement made in last year's report that "it is not so much the actual number of inches of rain as the suitable distribution of the moisture" which determines plenty and prosperity; for the rainfall of 1879 though somewhat less than the average, and considerably less than the fall of 1878, seems as regards the resulting food supply of the Southern Peninsula, to have been more equitably and proportionately distributed than the rainfall of the previous year.

Table showing the comparison of Monthly Rainfall in the Madras Presidency during 1876, 1877, 1878, *and* 1879 *with the Average of* 6 *Years ending* 1875.

Districts.		No. of Places of Observations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total.	
			Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
Bellary ...	Average of 6 years ...	16	0·07	...	0·01	...	0·11	...	0·54	2	2·65	5	2·93	6	2·75	7	3·43	7	5·87	10	6·34	9	0·69	2	0·21	1	25·60	49
	1876		...	...	..	...	0·47	1	0·42	1	0·48	1	2·96	5	1·03	4	1·19	4	1·47	3	0·22	1	0·06	...	...	...	8·30	21
	1877		...	...	0·01	...	0·40	1	0·52	2	2·16	3	3·86	7	2·15	5	1·78	5	6·93	13	8·82	13	0·93	1	0·75	1	28·31	51
	1878		...	...	...	...	0·05	...	0·63	2	2·45	5	3·02	5	4·81	10	7·36	12	6·73	11	6·38	8	1·93	3	0·06	...	33·42	56
	1879		...	...	0·46	1	0·18	...	0·28	1	6·08	6	2·00	5	5·92	9	3·83	10	2·79	5	2·37	5	0·63	1	...	...	24·54	43
Canara ...	Average of 6 years ...	5	0·83	...	0·18	...	0·15	...	1·09	2	8·50	5	38·09	26	47·57	30	22·09	25	14·56	21	8·55	13	1·63	4	0·27	1	143·51	127
	1876		...	...	...	...	0·98	2	1·51	4	1·19	5	34·90	23	49·05	30	20·81	30	7·34	16	0·76	2	0·59	1	0·05	...	117·18	113
	1877		...	...	0·01	...	...	...	1·29	3	1·20	6	41·28	26	23·71	28	33·92	29	19·20	22	11·98	22	1·48	4	0·92	1	134·99	141
	1878		...	...	...	...	0·02	...	1·70	2	6·06	8	45·21	25	31·52	25	48·13	28	31·96	29	10·67	14	1·87	4	1·47	2	178·61	137
	1879		...	...	...	...	0·34	2	0·71	4	26·12	15	34·57	29	28·03	29	33·57	30	8·11	19	9·54	16	2·17	4	0·19	1	143·35	149
Chingleput ...	Average of 6 years ...	7	0·91	1	1·79	1	0·31	...	0·45	...	2·83	2	2·55	5	3·94	8	5·32	9	6·50	8	9·33	10	12·15	11	2·85	4	48·93	59
	1876		...	...	...	...	...	...	0·44	1	0·78	3	2·66	5	3·69	9	2·94	6	4·07	5	0·45	1	4·30	4	...	...	19·33	34
	1877		0·16	1	...	...	0·40	...	...	...	10·60	4	2·31	5	0·93	3	2·73	8	6·86	10	8·09	11	10·33	11	2 50	4	44·91	57
	1878		0·39	...	...	...	0·01	.	0·58	...	1·63	3	1·73	4	4·26	9	7·34	13	6·46	9	4·56	5	2·00	4	1·18	3	30·14	50
	1879		0·82	3	...	...	1·51	2	...	...	4·61	3	3·57	7	5·33	8	6·80	12	2·39	4	12·66	16	9·16	8	1·36	3	48·21	66
Coimbatore...	Average of 6 years ...	10	0·23	...	0·58	1	0·52	1	1·99	3	2·89	5	2·09	5	1·64	5	2·17	4	2·68	6	5·59	10	3·97	7	0·56	2	25·01	49
	1876		...	...	...	...	0·41	1	1·22	4	5·00	7	0·60	2	1·56	5	2·96	5	2·64	4	2·12	4	0·83	3	0·14	1	17·48	36
	1877		...	...	0·01	...	0·59	1	1·06	2	2·32	5	2·40	6	0·39	2	0·64	3	5·85	10	9·25	13	4·00	8	3·75	6	30·26	56
	1878		0·13	...	...	...	0·01	...	2·06	2	3·55	6	1·59	4	2·85	8	3·98	9	3·18	8	4·90	8	2·44	6	7·70	2	32·39	53
	1879		0·15	1	0·33	1	1·88	4	0·62	3	3·54	6	0·65	3	4·51	9	1·20	3	3·21	6	4·28	8	1·81	3	0·22	2	22·40	49
Cuddapah ...	Average of 6 years ...	11	0·35	...	0·19	...	0·27	...	0·25	...	2·89	...	2·07	3	3·22	5	4·45	8	6·92	7	8·35	9	2·81	8	0·75	5	32·42	45
	1876		...	...	...	...	0·42	1	0·42	1	0·44	1	1·33	3	0·78	4	3·30	6	0·82	3	0·24	1	0·25	1	...	...	8·00	21
	1877		0·01	...	0·02	...	1·39	2	0·19	1	3·31	4	4·32	6	1·25	3	1·64	5	7·21	13	7·37	11	1·65	4	0·22	1	28·58	50
	1878		...	...	...	...	0·17	...	0·46	1	1·14	3	3·12	5	7·84	11	7·07	13	8·34	11	4·85	8	3·20	5	0·71	1	36·90	58
	1879		0·14	1	0·73	2	0·29	1	0·07	...	5·91	6	2·40	5	4·01	8	2·78	7	2·67	6	5·48	8	1·81	4	...	..	26·29	48
Ganjam ...	Average of 6 years ...	16	0·47	1	0·21	...	0·58	1	1·14	3	1·91	3	6·26	8	6·27	11	6·78	13	8·87	12	9·75	9	1·49	2	0·54	1	44·27	64
	1876		...	...	...	...	0·51	1	0·41	1	1·61	3	3·24	7	4·87	9	7·47	13	10·42	13	8·79	6	0·06	...	...	...	37·38	53
	1877		0·92	2	2·66	6	1·62	3	2·91	5	8·34	7	3·02	6	3·69	8	5·17	10	6·00	9	2·59	6	0·14	1	0·13	...	37·19	63
	1878		...	...	0·12	...	0·85	2	0·37	1	2·88	6	1·81	3	6·87	14	12·23	14	6·17	12	12·42	11	6·22	7	12·58	5	62·52	75
	1879		...	...	0·13	...	0·49	1	...	...	5·74	8	2·02	5	6·32	12	8·18	12	7·32	12	4·69	8	3·49	5	1·10	2	39·48	65
Godávari ...	Average of 6 years ...	20	0·29	...	0·18	...	0·38	...	0·41	1	1·97	3	4·24	6	6·34	11	5·12	8	8·51	11	10·35	10	1·50	2	0·38	1	39·67	53
	1876		...	...	...	...	0·03	...	0·04	...	1·20	3	2·88	6	5·16	9	7·81	10	5·29	6	1·27	2	0·06	...	..	...	23·74	35
	1877		0·94	2	1·40	3	0·94	2	0·48	1	4·83	4	1·66	4	3·12	6	3·95	8	6·17	10	5·85	9	0·14	...	0·01	...	29·49	48
	1878		...	...	...	...	0·07	...	0·82	1	2·66	4	4·30	5	12·74	16	10·83	16	8·98	12	13·83	13	4·22	4	3·34	2	61·79	73
	1879		...	...	...	...	0·14	...	...	...	4·97	6	6·27	8	3·39	6	5·73	10	2·48	4	6·48	7	6·45	5	...	...	35·91	46

Table showing the comparison of Monthly Rainfall in the Madras Presidency during 1876, 1877, 1878, *and* 1879 *with the Average of* 6 *Years ending* 1875—(Continued).

Districts.		No. of Places of Observations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total.	
			Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
Kistna ...	Average of 6 years ...	11	0·83	...	0·05	...	0·34	...	0·22	...	1·47	3	2·99	6	4·85	10	4·99	10	6·77	11	8·54	10	1·61	3	0·28	1	32·92	54
	1876		...	...	...	...	0·06	...	0·05	...	0·89	2	3·48	6	2·92	7	6·01	13	2·42	5	0·24	1	0·44	1	...	...	16·51	35
	1877		0·70	2	0·48	1	2·70	3	0·26	1	5·23	3	1·16	3	3·86	5	3·76	8	6·76	11	6·26	10	1·06	1	0·11	1	32·34	49
	1878		...	...	...	...	0·03	...	0·99	1	1·98	4	4·13	7	11·79	17	8·96	15	6·45	10	13·08	13	2·34	5	0·20	1	49·95	73
	1879		...	...	...	...	0·11	...	...	...	5·11	7	5·89	9	2·51	6	8·97	14	2·13	4	5·70	8	7·74	5	0·13	...	38·29	53
Kurnool ...	Average of 6 years ...	9	0·14	...	...	...	0·09	...	0·29	...	2·05	4	3·29	7	5·33	10	4·19	8	8·37	10	5·24	9	0·74	2	0·34	1	30·07	51
	1876		...	...	...	...	0·32	1	0·28	1	0·07	...	2·19	4	0·87	3	2·89	6	1·23	3	0·06	...	0·16	...	...	...	8·07	18
	1877		...	...	...	...	0·90	2	0·27	1	2·32	3	2·20	4	0·81	3	2·23	6	7·97	12	5·15	8	0·56	1	0·09	...	22·50	40
	1878		...	...	...	...	0·34	...	1·21	1	1·35	3	2·33	5	8·99	14	12·23	16	7·59	13	7·15	12	1·64	4	0·03	...	42·86	68
	1879		...	...	0·36	1	...	...	0·04	...	3·34	5	4·03	7	3·02	7	6·39	13	2·94	5	2·74	5	1·39	2	...	...	24·25	45
Madras ...	Average of 6 years ...	1	1·17	2	1·10	2	0·68	1	0·64	1	2·09	2	3·17	10	4·58	15	4·84	14	6·08	13	14·35	16	16·31	17	4·38	8	59·39	101
	1876		0·12	1	...	...	...	...	0·71	1	1·19	5	3·10	14	3·77	16	3·00	13	3·26	9	1·04	6	5·30	5	0·11	3	21·60	73
	1877		0·01	1	...	...	0·03	1	...	...	21·27	6	2·36	9	1·22	9	2·49	19	3·15	13	8·56	14	21·25	17	5·86	9	66·20	98
	1878		0·11	3	...	...	...	...	0·34	2	1·60	5	0·12	5	4·80	12	5·62	17	6·07	16	6·26	11	2·10	10	1·63	8	28·65	89
	1879		1·30	5	...	...	1·50	3	...	...	4·43	4	2·10	16	4·30	14	6·61	18	0·54	8	18·23	18	10·91	14	4·33	7	54·25	107
Madura ...	Average of 6 years ...	13	0·76	2	1·04	3	0·49	1	1·98	3	1·82	3	1·30	2	0·86	2	2·47	5	1·87	4	5·48	9	5·26	9	1·54	3	24·87	46
	1876		0·07	...	...	...	0·90	1	2·11	2	1·68	5	0·51	2	0·88	2	2·85	5	1·53	3	2·90	5	2·49	5	2·61	3	18·53	33
	1877		0·02	...	0·01	...	1·27	2	1·25	2	1·84	4	0·83	2	0·82	2	0·39	2	5·31	8	10·88	12	12·21	15	12·85	10	47·68	59
	1878		1·13	2	...	...	0·07	...	2·44	3	4·08	5	1·50	3	2·18	4	3·69	6	2·28	4	2·49	6	4·45	7	1·37	3	25·68	43
	1879		0·01	...	0·55	1	3·58	6	0·88	2	0·79	2	0·75	2	4·48	7	1·42	4	3·41	5	5·38	9	3·45	5	1·09	2	25·79	45
Malabar ...	Average of 6 years ...	15	0·62	1	0·38	1	0·59	1	3·45	6	9·09	10	34·29	25	32·69	25	11·77	19	8·64	16	8·16	13	3·26	6	0·79	2	113·73	125
	1876		...	...	0·01	...	1·94	4	1·74	4	2·28	6	21·84	23	37·49	30	12·23	22	5·63	9	2·41	5	1·15	3	0 07	1	86·79	107
	1877		...	...	0·14	1	0·54	2	2·68	6	4·78	10	39·62	26	10·97	22	25·31	25	14·90	19	19·57	22	4·07	7	2·30	5	124·88	145
	1878		0·01	...	...	...	0·92	1	3·52	6	6·93	9	35·60	24	22·05	20	33·06	26	24·24	27	12·40	17	4·37	9	1·38	4	144·48	143
	1879		0·14	...	0·34	1	1·56	3	2·00	4	21·29	15	17·82	24	24·42	26	14·61	28	6·82	13	10·28	16	4·01	8	1·67	3	104·96	141
Nellore ...	Average of 6 years ...	17	0·79	1	0·58	...	0·18	...	0·14	...	1·44	2	1·43	3	3·04	6	3·46	6	4·82	7	11·07	9	7·65	6	2·32	3	36·92	43
	1876		0·01	...	..	...	0·12	...	0·04	...	1·34	3	2·39	4	1·08	3	3·90	6	0·90	2	0·24	1	1·55	3	...	...	11·57	22
	1877		0·19	1	0·36	1	1·66	2	0·17	1	6·70	3	1·63	3	0·89	2	0·95	3	5·53	10	11·34	11	4·62	5	2·69	4	36·73	46
	1878		...	...	...	...	...	...	0·53	1	0·97	2	0·71	2	5·11	10	5·74	11	5·37	9	4·92	9	2·65	5	2·93	4	28·93	53
	1879		0·94	2	0·24	...	0·45	1	...	...	4·28	3	2·24	5	2·53	6	3·40	8	2·24	3	13·00	10	11·38	6	0·12	...	40·82	44
North Arcot..	Average of 6 years ...	17	0·42	...	1·08	...	0·55	...	0·32	1	4·47	3	2·54	5	3·46	7	5·26	9	7·51	9	7·84	10	5·81	7	1·34	3	40·60	54
	1876		...	...	...	...	0·10	...	0·22	1	2·22	5	3·28	7	3·37	7	2·78	6	4·17	6	0·80	3	1·68	4	...	...	18·62	39
	1877		...	...	0·01	...	0·61	1	0·41	1	4·49	5	2·88	5	0·91	2	2·42	5	10·39	14	9·93	12	4·89	8	1·77	3	38·71	56
	1878		0·01	...	...	...	0·05	...	0·94	1	1·68	4	2·95	4	5·49	9	11·27	14	5·60	9	4·91	7	3·76	5	1·26	3	37·91	56
	1879		1·33	2	0·58	...	1·36	2	0·24	1	4·61	4	4·52	7	4·63	8	2·92	8	2·91	4	8·23	11	3·21	4	0·17	...	34·71	51

Table showing the comparison of Monthly Rainfall in the Madras Presidency during 1876, 1877, 1878, *and* 1879 *with the Average of* 6 *Years ending* 1875—(Continued).

Districts.		No. of Places of Observations.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total.	
			Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
Nilgiris ...	Average of 6 years ...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	1876 ...	7	...	...	...	...	2·83	5	2·55	8	5·64	11	2·09	7	4·48	13	4·12	10	3·41	8	6·67	9	3·32	7	1·73	3	36·84	81
	1877 ...	7	0·02	...	0·52	2	4·78	7	2·38	7	3·98	10	9·68	17	1·78	7	4·72	13	9·77	18	13·34	20	9·98	15	7·90	9	68·85	125
	1878 ...	7	0·81	2	...	...	1·87	3	3·51	3	4·87	10	3·91	11	4·85	14	8·92	21	7·21	14	5·72	12	4·47	9	4·34	9	50·48	108
	1879 ...	7	0·06	...	1·87	3	1·85	4	2·67	6	7·46	13	3·63	10	9·57	19	3·36	10	4·46	13	10·43	16	5·83	11	2·69	5	53·88	110
Salem ...	Average of 6 years ...		0·11	...	0·41	1	0·65	1	1·27	2	5·28	6	2·40	5	2·70	6	4·77	8	6·63	9	7·22	9	2·91	6	1·04	11	35·39	64
	1876 ...	10	...	...	...	...	0·56	1	0·53	2	4·18	7	1·75	3	3·00	5	3·56	6	4·02	5	1·10	2	0·80	2	0·09	...	19·59	35
	1877 ...		...	...	...	...	1·42	2	0·55	1	3·46	7	3·22	5	0·78	2	1·09	4	11·37	15	12·58	16	4·01	6	2·05	4	40·53	62
	1878 ...		0·12	...	...	...	0·35	...	2·47	2	3·92	6	3·70	5	5·71	9	7·25	11	5·25	10	5·26	7	4·49	5	0·56	1	38·98	56
	1879 ...		1·35	1	0·81	1	2·29	2	1·22	3	2·45	4	1·97	4	9·83	12	3·88	6	5·87	7	4·77	6	1·68	2	...	...	36·12	48
South Arcot.	Average of 6 years ...		0·28	...	1·43	1	0·20	...	0·98	...	3·35	3	1·79	4	3·15	6	6·28	9	6·52	9	8·19	10	9·62	11	3·11	4	44·90	57
	1876 ...	8	0·01	...	...	...	0·04	...	1·27	1	1·81	4	2·49	4	2·53	7	6·18	10	3·27	5	2·21	3	4·89	5	0·46	1	25·16	40
	1877 ...		...	...	...	...	...	...	0·11	...	6·59	5	1·36	4	1·38	4	1·29	5	8·50	13	9·84	12	8·52	11	7·59	9	45·18	63
	1878 ...		0·32	...	...	...	...	...	0·75	1	2·23	3	2·35	3	2·97	6	6·64	12	8·04	9	2·81	4	7·47	7	1·28	4	34·86	49
	1879 ...		0·91	2	...	...	1·57	3	0·22	...	1·53	2	3·94	8	6·38	11	4·34	7	4·35	8	5·99	11	3·11	4	2·63	3	34·97	59
Tanjore ...	Average of 6 years ...		1·04	2	1·49	2	0·19	...	1·87	2	2·75	2	1·86	3	2·44	5	4·59	9	4·34	9	8·28	11	10·18	13	4·67	8	43·73	66
	1876 ...	10	...	...	...	...	0·30	1	0·30	...	2·84	5	1·06	3	0·76	2	6·37	11	2·18	3	1·87	4	6·72	6	6·52	5	28·92	40
	1877 ...		0·19	1	...	...	0·08	...	...	...	3·58	3	1·41	2	1·80	4	1·16	4	5·71	9	10·39	11	13·55	16	13·46	12	51·41	63
	1878 ...		3·40	3	...	...	0·08	...	0·66	2	1·73	3	1·21	2	2·10	4	6·21	10	5·87	9	3·94	7	5·93	7	1·86	3	32·69	50
	1879 ...		0·26	1	...	...	2·34	4	0·68	1	1·22	4	2·89	4	5·10	8	6·15	8	6·18	8	9·20	12	4·32	4	7·91	6	46·25	59
Tinnevelly ...	Average of 6 years ...		2·11	3	1·53	3	1·16	2	1·66	3	1·31	3	0·73	2	0·35	1	0·71	2	1·05	2	3·55	7	7·42	11	1·88	4	23·46	43
	1876 ...	11	...	...	...	...	2·05	3	1·27	2	0·12	1	0·73	2	0·48	1	0·26	1	0·56	2	4·16	7	3·66	5	1·16	3	14·87	28
	1877 ...		0·01	...	0·18	1	2·28	3	1·55	4	1·14	3	1·75	3	0·19	1	0·57	3	2·17	5	7·58	12	12·69	17	15·29	12	45·40	65
	1878 ...		1·83	3	...	...	0·18	...	3·67	5	2·23	4	1·64	4	0·93	3	1·48	3	1·91	4	3·40	5	3·51	10	1·91	4	22·69	45
	1879 ...		0·01	...	0·82	2	5·17	8	0·54	2	4·13	7	0·15	1	2·89	5	0·55	3	2·34	4	5·57	8	4·72	7	3·42	4	30·31	51
Trichinopoly.	Average of 6 years ...	5	0·59	1	0·95	2	0·08	...	1·42	2	2·97	4	2·01	3	1·87	3	4·49	6	4·32	6	8·34	12	6·50	10	2·14	4	35·68	53
	1876 ...		...	...	...	...	0·45	1	0·60	1	4·41	7	1·08	2	2·54	2	5·00	8	4·14	5	1·85	4	1·86	3	1·45	3	23·38	36
	1877 ...		0·01	...	...	...	0·51	1	0·15	...	4·08	7	0·88	3	0·42	2	1·29	3	7·69	11	11·77	16	5·29	10	5·49	11	37·58	64
	1878 ...		1·53	1	...	...	...	...	3·22	4	3·18	6	0·97	1	4·67	7	4·33	7	5·88	8	5·01	9	3·15	4	1·05	3	32·69	50
	1879 ...		0·20	1	...	...	2·26	4	1·61	2	1·40	2	1·25	3	2·15	4	2·15	4	4·66	7	6·43	9	2·96	3	0·43	1	28·74	44
Vizagapatam.	Average of 6 years ...		0·48	1	0·28	...	0·27	...	0·81	1	2·11	3	4·59	7	5·34	8	5·96	9	8·01	11	10·68	9	1·55	2	0·92	1	41·00	52
	1876 ...	15	...	...	...	...	0·19	1	0·15	...	1·49	3	3·30	5	2·22	6	6·63	11	6·02	10	11·29	4	0·42	1	...	...	31·71	41
	1877 ...		1·13	2	2·05	5	2·33	2	1·74	3	8·85	6	2·19	4	4·39	9	3·31	7	7·72	10	3·88	7	0·11	1	0·05	5	37·75	56
	1878 ...		...	...	...	...	0·73	1	0·76	1	4·07	7	3·75	4	9·23	13	10·08	15	6·77	13	11·69	11	4·03	5	18·45	5	69·56	75
	1879 ...		...	...	0·09	...	0·24	1	0·06	...	8·73	9	4·76	7	4·64	10	6·61	11	5·56	9	4·70	7	5·66	6	0·17	1	41·22	61
Total ...	Average of 6 years* ..	234	0·63	1	0·67	1	0·39	...	1·05	2	3·19	4	6·03	7	6·40	8	5·40	9	3·62	6	2·20	3	1·86	3	0·63	1	27·88	42
	1876 ...		0·01	...	0·005	...	0·45	1	0·72	1	1·82	4	4·76	6	3·19	7	4·80	8	7·77	12	9·08	12	5·57	7	3·89	5	48·03	68
	1877 ...		0·21	1	0·36	1	0·98	2	0·78	2	5·35	5	6·01	7	4·07	7	4·07	6	10·67	13	8·14	11	3·59	6	3·05	3	51·28	67
	1878 ...		0·44	1	0·006	...	0·19	...	1·40	2	2·81	5	6·08	6	7·83	11	6·35	11	3·97	7	7·44	10	4·57	5	1·32	2	44·52	66
	1879 ...		0·36	1	0·35	1	1·39	3	0·56	1	6·08	6	5·12	8	7·01	11	6·35	11	3·97	7	7·44	10	4·57	5	1·32	2	44·52	66

* Exclusive of Nilgiris.

PRICES OF FOOD.

6. The following tables show the prices of food in the Madras Presidency during 1876, 1877, 1878, and 1879 compared with the average of the previous six years. It will be seen that although the price in 1879 compares in all three grains—rice, cholum, and ragi—favorably with the prices that obtained during 1877 and 1878, in none has it yet reached the average.

7. Still the prices which ruled during the last six months of the year compare favorably with the first six months, and in some districts (viz., Bellary, Kurnool, Madura, Tinnevelly, and Vizagapatam) almost reached the average prices of the six years quoted.

8. It would also seem from the table of deaths registered in the districts of the Madras Presidency during each month of the year 1879 that the numbers have, as food became cheaper, gradually diminished, the mortuary table of the last six comparing favorably with the first six months of the year.

Table showing the Average Prices of Food in the Madras Presidency during 1876, 1877, 1878, *and* 1879 *compared with the Average of previous* 6 *Years.*

Districts.	Second-sort Rice.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
Ganjam.													
Average of 6 years...	20·4	20·8	20·9	21·2	21·1	20·3	20·3	19·3	19·4	19·8	20·5	20·8	20·4
1876	23·0	21·2	20·7	21·0	20·2	20·4	20·4	19·0	20·0	19·9	17·4	13·7	19·7
1877	15·2	15·7	15·1	15·0	13·5	13·7	11·0	10·1	9·0	9·0	9·1	9·7	12·2
1878	9·9	9·0	8·4	8·7	8·8	8·8	8·2	8·4	9·1	9·9	10·5	10·8	9·2
1879	11·8	12·0	12·8	12·8	12·8	13·5	12·9	13·8	15·2	16·2	16·4	17·8	14·0
Vizagapatam.													
Average of 6 years...	16·4	17·1	18·1	17·8	17·4	16·8	16·7	15·5	16·1	15·9	16·3	16·4	16·7
1876	17·8	17·0	17·6	16·2	16·7	16·8	16·7	16·8	16·3	15·1	12·9	11·2	15·9
1877	11·0	11·7	11·5	10·7	10·7	10·3	8·8	7·8	7·3	7·7	7·6	8·5	9·4
1878	9·9	8·4	8·2	8·1	7·6	7·2	6·9	7·6	8·1	8·2	8·3	7·8	8·0
1879	8·9	10·0	10·1	9·6	10·4	10·4	11·0	11·3	12·4	13·3	14·4	15·7	11·5
Godávari.													
Average of 6 years...	20·1	20·3	19·8	20·4	20·2	19·9	19·6	19·2	19·2	19·3	19·5	19·8	19·8
1876	22·3	22·6	22·9	22·2	20·9	21·4	20·9	20·5	20·1	15·7	13·1	10·5	19·4
1877	10·2	11·2	9·7	10·0	9·9	10·3	9·2	8·1	7·4	9·3	8·4	8·4	9·6
1878	8·6	7·8	7·5	7·6	7·7	10·3	10·0	7·7	7·5	7·5	8·1	9·6	8·3
1879	10·8	10·9	10·8	11·7	12·1	12·4	12·6	12·8	14·0	14·3	14·4	15·3	12·7
Kistna.													
Average of 6 years...	15·5	16·0	16·2	16·2	16·2	15·9	15·6	15·4	15·5	15·5	15·7	16·4	15·8
1876	20·4	20·5	20·7	20·4	19·8	19·2	18·3	18·0	17·1	13·7	10·7	8·9	17·3
1877	8·7	10·3	9·0	9·2	9·0	9·1	8·0	7·0	7·1	7·9	7·5	7·6	8·4
1878	7·9	7·6	7·3	7·6	7·7	7·4	7·6	7·7	7·2	6·8	7·0	8·3	7·5
1879	9·6	11·7	11·7	11·6	11·3	11·3	11·8	12·4	13·7	14·2	14·1	14·3	12·3
Nellore.													
Average of 6 years...	17·2	16·9	16·8	16·8	16·8	16·8	17·6	17·1	17·3	16·6	17·2	17·3	17·0
1876	15·9	15·5	15·7	15·4	15·1	14·9	15·0	14·5	13·9	11·7	8·2	6·9	13·7
1877	7·1	8·1	7·2	7·9	7·8	7·8	6·8	5·7	5·8	6·4	6·9	7·5	7·1
1878	7·8	7·5	7·6	7·7	8·2	8·1	7·9	8·2	8·5	8·5	8·0	8·4	8·0
1879	8·9	9·8	10·1	10·4	10·5	11·2	11·8	11·8	12·1	12·3	12·5	13·0	11·2

Districts.	Cholum.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
Ganjam.													
Average of 6 years...	29·9	32·6	31·7	29·9	29·5	28·1	26·5	26·2	26·4	25·8	24·9	31·3	28·6
1876	29·3	30·2	27·4	27·3	23·9	25·5	26·4	26·7	26·7	26·7	28·2	16·2	26·2
1877	13·9	21·0	21·0	20·8	18·5	17·9	14·7	14·6	13·9	13·9	13·9	13·9	16·5
1878	13·6	14·3	12·8	12·8	11·7	11·6	9·8	10·8	7·7	11·3	8·5	13·7	11·5
1879	17·5	18·4	18·7	18·7	19·2	20·1	19·8	20·9	23·4	25·4	12·7	22·5	19·8
Vizagapatam.													
Average of 6 years...	28·1	29·6	30·8	33·6	30·6	27·3	27·2	26·2	26·9	27·1	28·1	29·0	28·7
1876	27·7	30·3	31·0	30·3	28·4	26·5	27·2	23·0	27·1	25·9	22·7	16·4	26·4
1877	17·4	19·6	19·0	18·4	17·0	16·3	14·0	11·1	10·1	9·4	10·1	13·5	14·7
1878	16·0	13·6	12·9	11·8	12·0	11·2	11·4	11·5	11·8	11·7	12·0	14·9	12·5
1879	17·4	17·9	17·7	17·8	17·5	17·4	16·6	19·6	21·9	20·6	24·3	28·2	19·7
Godávari.													
Average of 6 years...	33·0	33·8	33·3	35·0	34·0	33·5	32·5	32·4	32·1	32·3	31·6	32·5	33·0
1876	37·6	38·6	39·3	38·8	33·1	37·2	37·1	36·8	37·6	27·3	18·9	13·4	33·4
1877	14·8	17·2	15·7	15·7	14·8	14·9	12·2	7·4	8·9	11·3	12·6	13·0	13·2
1878	16·0	13·9	13·3	13·7	13·7	14·9	13·2	12·8	12·3	12·3	13·5	15·5	13·7
1879	17·6	17·4	15·8	16·7	17·8	17·3	16·0	18·6	19·1	20·3	21·1	22·7	18·4
Kistna.													
Average of 6 years...	23·4	23·9	24·3	24·6	33·7	22·9	22·7	22·6	23·4	24·1	23·1	23·9	24·4
1876	31·5	32·0	31·0	30·3	30·3	30·3	29·7	28·9	28·3	20·0	14·5	11·2	26·5
1877	11·5	12·7	11·5	11·3	11·2	11·2	8·9	8·0	9·0	10·7	11·1	12·4	10·8
1878	13·6	12·4	11·4	11·5	11·9	10·6	11·0	11·3	9·8	10·1	11·4	15·2	11·7
1879	15·0	15·4	15·3	14·3	13·3	12·9	13·7	14·7	17·7	21·8	22·3	21·9	16·5
Nellore.													
Average of 6 years...	27·4	27·4	28·3	27·9	27·8	27·4	28·1	27·7	26·4	25·2	27·4	27·2	27·4
1876	27·3	27·8	27·1	28·1	27·8	27·5	26·7	24·8	23·8	17·6	12·0	8·7	23·3
1877	8·0	8·9	9·4	9·4	9·2	9·4	8·0	6·4	6·8	7·2	7·5	8·8	8·3
1878	10·4	11·3	11·8	12·5	13·0	12·4	11·2	11·7	12·4	13·7	13·2	16·3	12·5
1879	18·0	18·6	19·7	20·5	19·2	18·9	19·4	19·1	19·5	20·1	20·4	22·7	19·7

Districts.	Ragi.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
Ganjam.													
Average of 6 years...	36·1	35·8	35·6	35·7	34·7	34·2	34·3	32·7	33·9	36·8	37·7	37·3	35·4
1876	39·6	38·5	37·5	37·3	36·3	35·8	35·6	32·9	37·8	39·5	28·0	16·8	34·6
1877	20·8	22·7	22·8	23·2	21·1	17·0	14·7	13·7	17·7	14·6	15·2	14·8	18·2
1878	15·1	13·2	12·7	13·0	12·7	12·1	11·0	12·4	13·0	17·3	20·4	18·6	14·3
1879	17·7	17·7	17·4	17·8	18·2	18·5	18·2	18·8	23·4	28·2	29·3	30·7	21·3
Vizagapatam.													
Average of 6 years...	29·1	28·5	30·3	30·5	30·2	28·4	27·4	26·9	28·5	30·3	30·3	30·0	29·2
1876	31·8	30·0	31·4	31·0	30·2	30·0	27·5	28·3	29·0	29·3	22·8	17·2	28·8
1877	17·5	19·5	18·7	18·0	17·8	16·8	14·6	13·0	11·7	12·1	12·4	13·9	15·5
1878	14·6	13·4	12·9	12·9	12·5	11·7	11·6	16·2	18·5	17·9	18·1	17·7	14·8
1879	18·0	18·0	17·9	17·8	17·9	16·6	18·0	20·6	23·5	25·4	26·1	26·4	20·5
Godávari.													
Average of 6 years...	36·8	37·1	35·2	37·1	36·5	35·8	35·7	34·9	34·9	35·1	35·5	34·9	35·8
1876	39·6	40·0	39·0	38·4	38·0	38·0	37·3	36·4	39·3	27·9	20·2	14·7	34·1
1877	14·5	16·5	16·8	16·5	15·8	15·6	12·5	10·5	9·5	12·9	14·2	15·5	14·2
1878	16·5	13·4	12·5	13·4	13·7	15·7	13·3	13·7	13·2	13·3	14·3	16·8	14·1
1879	18·6	17·0	17·3	18·4	19·4	19·8	20·3	20·2	21·1	21·5	23·0	27·9	20·4
Kistna.													
Average of 6 years...	29·8	30·4	30·3	30·9	31·5	30·8	29·8	28·8	28·8	28·9	27·9	30·2	29·8
1876	35·3	36·1	36·7	35·9	35·2	35·8	31·2	32·4	31·3	24·2	15·8	11·0	30·1
1877	10·8	14·4	13·5	14·4	13·6	13·1	9·9	8·1	9·6	11·5	11·6	12·2	11·9
1878	13·9	13·3	11·8	13·2	13·3	12·4	11·9	12·2	11·2	11·0	11·2	14·7	12·5
1879	16·5	17·5	17·5	17·9	17·3	17·1	17·6	18·8	22·5	25·7	25·6	26·6	20·1
Nellore.													
Average of 6 years...	31·8	30·9	32·8	31·4	32·0	32·2	32·5	32·0	31·8	31·8	31·5	30·5	31·8
1876	28·6	28·5	28·8	29·9	29·8	29·6	29·3	26·4	24·9	18·8	13·3	8·8	24·7
1877	8·1	9·2	10·6	11·2	10·7	10·6	8·5	7·1	7·0	8·0	8·6	9·2	9·1
1878	11·4	11·4	11·9	13·2	14·3	13·6	12·3	12·5	13·2	14·7	13·9	14·0	13·0
1879	17·1	17·2	17·5	20·5	20·7	20·3	20·9	21·6	22·2	23·0	24·0	24·4	20·8

Table showing the Average Prices of Food in the Madras Presidency during 1876, 1877, 1878, *and* 1879 *compared with the Average of previous* 6 *Years*—(Continued).

Districts.	Second-sort Rice.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
Cuddapah.													
Average of 6 years...	14·6	14·8	15·0	15·3	15·8	15·9	16·1	16·0	15·9	15·8	15·7	15·3	15·5
1876	14·8	14·7	14·5	13·7	14·1	13·9	12·4	12·0	11·2	8·7	7·2	6·3	12·0
1877	6·8	7·2	7·9	8·4	7·8	7·4	5·8	5·8	5·6	7·1	7·9	8·5	7·2
1878	8·6	7·8	7·7	8·6	9·2	8·6	8·6	8·2	9·0	9·3	9·7	10·6	8·8
1879	11·0	12·1	12·1	12·5	12·6	13·1	13·4	13·4	13·7	13·9	14·2	14·6	13·1
Bellary.													
Average of 6 years...	14·7	15·1	15·0	15·5	15·7	15·8	15·5	15·4	15·5	15·2	14·8	14·8	15·3
1876	15·1	15·2	15·0	14·8	14·8	14·5	13·5	12·7	11·1	8·4	6·7	6·9	12·4
1877	6·9	7·2	7·4	8·2	7·1	6·5	5·6	5·3	5·5	6·8	7·8	7·7	6·9
1878	8·3	7·7	7·9	8·4	8·6	8·2	8·3	8·5	8·9	9·4	9·9	11·0	8·7
1879	11·5	11·1	11·3	11·9	12·0	12·3	12·5	13·3	14·2	14·2	14·3	15·0	12·8
Kurnool.													
Average of 6 years...	13·5	13·2	13·1	13·5	13·6	13·6	13·7	13·6	13·5	13·6	13·9	13·6	13·5
1876	15·5	15·3	15·2	15·1	15·3	15·0	14·2	13·5	12·1	7·3	6·5	6·3	12·6
1877	6·3	8·0	7·0	7·4	6·6	6·4	5·4	5·3	5·4	7·6	6·9	7·9	6·7
1878	7·7	7·9	8·0	8·2	8·3	7·7	8·2	8·0	8·1	7·9	8·8	9·4	8·2
1879	11·0	10·5	11·2	11·3	11·3	10·9	11·1	11·6	13·0	12·9	13·1	13·5	11·8
Madras.													
Average of 6 years...	13·1	14·3	13·7	15·6	15·5	15·2	14·7	14·8	14·6	14·6	13·9	14·6	14·6
1876	12·0	12·1	12·0	11·8	11·7	11·5	11·3	11·4	10·8	9·4	8·1	6·8	10·7
1877	7·7	8·9	9·3	9·7	8·8	8·3	6·9	6·3	6·3	7·7	8·5	8·4	8·1
1878	7·9	7·7	8·2	8·4	8·4	7·8	7·4	7·8	7·9	8·0	8·4	8·4	8·0
1879	8·7	9·8	10·2	10·5	10·5	10·0	10·0	11·1	10·6	10·8	11·5	11·7	10·5
Chingleput.													
Average of 6 years...	17·3	17·6	18·2	18·9	19·2	18·9	17·1	16·4	16·4	16·5	16·8	16·9	17·5
1876	15·5	16·4	16·2	16·0	15·9	15·2	15·4	14·1	13·9	11·6	9·8	7·9	14·0
1877	8·8	9·4	9·5	9·6	9·0	8·4	6·5	6·0	6·2	8·4	9·3	8·8	8·3
1878	8·5	9·1	8·9	9·0	9·1	7·8	7·7	7·9	8·0	8·2	9·5	9·2	8·5
1879	11·1	11·3	11·3	11·2	11·4	11·2	11·0	11·2	11·3	11·6	12·7	13·5	11·6

Districts.	Cholum.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
Cuddapah.													
Average of 6 years...	25·3	25·3	26·1	26·4	26·7	26·2	25·8	25·8	25·6	25·9	26·1	26·0	25·9
1876	26·5	27·3	25·3	23·6	26·2	25·3	21·9	20·2	17·1	11·8	8·7	7·2	20·1
1877	6·0	8·5	9·5	9·3	8·6	8·3	6·6	6·3	6·7	9·0	10·4	11·5	8·4
1878	14·0	12·9	12·9	13·4	12·9	11·2	11·3	11·7	13·4	14·5	14·8	16·1	13·2
1879	16·8	17·3	18·0	18·1	17·1	16·7	16·5	17·4	18·4	18·6	19·4	19·9	17·9
Bellary.													
Average of 6 years...	29·1	28·3	30·4	29·2	28·9	28·5	27·0	28·9	26·8	28·7	29·8	26·1	28·5
1876	26·1	25·7	25·6	25·8	25·3	24·6	22·4	20·5	15·5	10·4	7·5	7·5	19·7
1877	7·8	8·4	9·1	8·6	7·5	6·8	6·0	5·8	6·3	9·1	10·8	10·8	8·1
1878	11·7	11·0	11·5	11·3	10·8	9·4	9·4	9·7	10·7	12·2	14·8	16·4	11·5
1879	15·7	14·4	15·8	16·1	14·9	14·7	15·4	16·6	17·9	19·3	23·1	22·7	17·2
Kurnool.													
Average of 6 years...	25·6	25·8	26·3	25·9	25·8	25·4	24·9	24·3	23·9	24·4	26·0	26·2	25·4
1876	28·4	29·4	29·1	28·8	28·3	26·8	24·4	21·5	17·7	9·3	7·9	7·0	21·6
1877	7·1	8·1	8·6	8·3	7·3	7·0	6·2	6·0	6·4	8·2	9·5	10·6	7·8
1878	13·2	13·1	13·2	13·1	12·0	9·8	10·8	11·3	11·2	11·7	13·6	13·9	12·2
1879	15·0	14·4	15·0	15·9	13·8	14·1	14·3	15·0	17·4	19·9	24·5	25·1	17·0
Madras.													
Average of 6 years...	22·6	22·9	21·5	23·1	22·5	21·9	22·2	22·8	22·3	22·9	23·1	24·9	22·7
1876	20·3	19·6	18·5	16·8	18·0	18·3	18·0	17·8	16·5	12·5	10·9	9·0	16·3
1877	9·3	10·3	11·7	11·1	11·9	10·2	8·7	7·9	7·9	11·4	11·5	11·6	10·3
1878	11·4	10·5	9·2	9·4	10·0	9·8	9·7	10·0	10·4	12·2	...	11·0	10·3
1879	10·8	11·0	12·6	10·8	11·5	12·0	12·2	11·5	11·5	13·5	14·4	14·4	12·2
Chingleput.													
Average of 6 years...	23·4	23·4	23·2	22·7	22·7	22·0	20·5	21·5	22·3	22·4	22·8	23·7	22·6
1876	17·6	...	...	...	...	20·1	23·5	23·5	22·9	18·6	14·3	8·7	18·6
1877	11·9	10·9	11·5	10·1	10·2	9·6	7·4	7·1	7·3	6·7	11·7	9·1	9·5
1878	7·4	12·1	11·2	10·3	11·3	11·8	9·6	11·5	13·0	13·7	13·7	13·7	11·6
1879	...	...	17·6	17·5	18·4	...	13·0	15·1	15·8	15·8	17·0	20·2	16·7

Districts.	Ragi.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
Cuddapah.													
Average of 6 years...	28·3	28·4	28·9	29·9	30·5	29·9	28·8	29·4	28·4	28·9	28·9	28·5	29·1
1876	27·7	27·7	27·3	27·6	27·6	26·7	22·7	21·3	17·2	12·0	9·1	7·4	21·1
1877	7·6	9·0	10·0	9·9	8·6	8·6	6·8	6·4	6·8	9·1	10·4	12·0	8·8
1878	14·0	12·7	12·9	13·5	14·0	12·2	11·4	11·4	12·8	15·1	16·5	17·2	13·6
1879	18·4	19·4	19·8	20·6	20·7	20·4	20·2	20·7	21·0	21·1	22·2	23·5	20·7
Bellary.													
Average of 6 years...	34·0	34·0	33·4	34·5	34·2	34·6	33·1	32·6	32·8	33·1	34·3	34·6	33·8
1876	27·2	26·9	26·4	26·2	25·4	24·4	22·1	19·4	15·2	10·5	8·3	7·9	19·9
1877	7·8	7·8	9·1	9·0	7·9	7·4	6·4	6·0	7·1	10·7	12·2	12·1	8·6
1878	11·7	10·9	10·7	11·2	11·0	9·5	9·5	10·0	11·6	14·2	18·2	19·2	12·3
1879	18·4	16·1	17·2	18·0	16·7	16·5	17·1	18·0	19·2	20·9	23·2	24·8	18·8
Kurnool.													
Average of 6 years...	27·3	27·6	27·3	28·0	29·1	27·9	27·2	27·3	25·9	26·8	25·9	27·2	27·3
1876	26·1	27·4	23·8	28·7	28·1	27·2	26·4	23·0	19·7	10·6	9·0	7·5	21·4
1877	7·7	8·5	8·6	9·1	8·0	7·4	6·4	5·3	6·6	8·8	10·5	12·7	8·3
1878	13·6	14·0	13·2	12·3	11·9	10·8	10·9	12·2	13·5	13·9	15·4	16·8	13·2
1879	17·8	17·3	18·3	18·4	15·6	17·1	17·4	16·5	20·1	21·5	21·6	21·8	18·6
Madras.													
Average of 6 years...	25·5	27·6	24·5	27·0	26·9	26·5	27·5	27·8	27·5	28·1	27·3	29·2	27·2
1876	19·9	20·3	18·9	19·3	19·3	18·6	19·3	19·3	17·1	12·8	10·4	7·9	16·9
1877	9·4	10·1	11·1	10·8	10·0	9·6	8·1	7·6	8·1	11·0	11·5	11·0	9·8
1878	11·4	10·4	9·4	10·3	11·4	10·5	10·1	12·2	13·2	14·8	15·5	15·3	11·9
1879	16·1	16·5	16·8	18·1	18·1	16·9	17·9	18·1	20·0	21·0	21·9	22·3	18·6
Chingleput.													
Average of 6 years...	28·2	27·8	27·7	28·4	28·6	28·1	25·9	26·1	26·3	27·8	28·2	27·7	27·6
1876	22·7	22·3	22·0	22·4	22·6	21·1	20·5	21·0	20·1	17·0	13·4	9·4	19·5
1877	9·7	10·8	11·2	11·7	10·9	9·9	7·8	6·5	8·3	11·8	12·0	11·3	10·2
1878	11·8	10·8	10·4	11·1	10·7	9·8	9·4	10·4	13·9	16·3	15·8	14·4	12·0
1879	15·6	15·9	16·4	17·9	18·2	17·0	17·2	17·3	18·8	21·6	22·6	22·5	18·4

Table showing the Average Prices of Food in the Madras Presidency during 1876, 1877, 1878, *and* 1879 *compared with the Average of previous* 6 *Years*—(Continued).

Districts.	Second-sort Rice.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November	December.	Average.
North Arcot.													
Average of 6 years ...	17·8	17·7	17·9	18·5	18·4	19·0	18·2	18·5	18·1	17·8	18·8	18·0	18·2
1876	15·0	14·6	14·5	14·3	14·5	13·6	13·2	12·7	12·2	9·8	8·4	7·2	12·5
1877	7·4	8·0	8·2	8·7	8·0	7·4	6·3	6·5	5·8	8·0	8·4	8·3	7·6
1878	8·5	8·5	8·5	9·0	9·1	8·1	7·9	8·4	8·9	9·8	10·4	10·9	9·0
1879	11·9	12·8	12·7	12·8	12·9	12·6	12·5	12·9	13·0	13·5	14·3	14·8	13·1
South Arcot.													
Average of 6 years ...	17·3	18·3	19·1	19·2	18·4	18·1	17·5	17·1	17·1	16·9	17·9	17·5	17·9
1876	15·1	15·4	15·4	15·4	15·4	15·5	14·9	14·5	14·2	12·7	9·7	7·6	13·8
1877	8·3	8·7	9·1	10·0	9·1	8·6	6·8	6·2	5·8	6·8	7·6	8·1	7·9
1878	9·1	10·8	10·0	9·5	9·7	8·7	7·9	8·0	8·5	8·9	10·0	10·2	9·2
1879	12·0	12·1	12·1	12·5	12·9	12·7	12·4	12·9	12·8	13·1	13·2	14·1	12·7
Tanjore.													
Average of 6 years ...	16·1	16·8	17·2	17·3	16·9	16·7	16·3	15·6	15·5	16·3	16·5	15·9	16·4
1876	15·5	14·2	14·5	14·7	14·7	14·5	13·5	13·3	13·5	13·4	10·7	8·4	13·4
1877	9·6	9·2	9·7	9·8	8·1	8·7	7·7	6·6	6·2	6·9	8·0	8·1	8·2
1878	10·5	11·6	10·1	10·1	10·1	9·0	8·2	8·3	8·6	9·5	9·2	8·9	9·5
1879	9·0	9·4	10·2	11·1	10·8	10·4	10·4	10·7	10·8	11·7	13·4	14·5	11·0
Trichinopoly.													
Average of 6 years ...	16·1	16·6	16·9	16·8	16·6	16·2	16·6	15·8	15·8	15·9	16·7	16·3	16·4
1876	16·2	14·3	14·3	13·5	14·4	13·7	12·8	12·8	12·8	13·0	9·1	7·0	12·8
1877	7·7	7·6	7·9	8·3	7·7	7·5	6·2	5·8	5·4	6·3	7·0	7·1	7·0
1878	9·0	9·9	9·0	8·8	9·0	7·6	7·3	7·5	7·9	8·8	8·6	8·5	8·5
1879	9·2	9·9	10·3	10·7	10·6	9·6	9·5	9·9	10·3	10·9	12·3	12·8	10·5
Madura.													
Average of 6 years ...	13·3	13·8	14·2	14·8	14·8	14·3	14·1	14·1	13·7	13·4	13·9	14·0	14·0
1876	15·3	14·3	14·7	15·0	14·7	14·3	13·0	12·6	12·6	11·9	8·8	7·0	12·9
1877	7·4	7·5	8·2	8·9	8·2	8·1	6·5	6·5	5·8	6·7	7·9	7·5	7·4
1878	9·2	10·5	8·7	9·1	9·1	8·1	7·9	8·0	8·5	8·8	8·7	8·5	8·7
1879	9·3	10·3	10·6	10·7	10·2	9·5	9·5	9·7	10·0	10·4	11·9	13·0	10·4

Districts.	Cholum.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
North Arcot.													
Average of 6 years ...	27·0	28·9	29·3	29·6	28·9	31·1	28·3	29·9	30·2	30·5	29·9	28·8	29·4
1876	22·6	21·1	21·3	21·6	23·0	20·5	20·7	20·0	16·9	12·8	10·0	8·8	16·6
1877	8·2	8·2	10·0	10·3	9·1	8·5	7·4	6·6	6·7	8·3	9·3	9·5	8·5
1878	11·0	14·9	10·2	10·4	10·7	9·6	10·5	12·6	14·4	14·4	13·9	16·0	12·4
1879	15·8	16·7	17·7	18·5	17·9	18·3	18·6	21·3	20·1	20·1	19·9	19·9	18·7
South Arcot.													
Average of 6 years ...	36·3	38·7	39·6	36·6	34·5	33·4	33·3	30·9	28·9	31·2	32·9	35·4	34·3
1876	27·7	28·6	25·1	26·1	24·4	24·5	23·9	22·0	22·4	23·0	16·6	10·7	22·8
1877	11·1	11·5	11·5	11·6	10·5	9·7	7·6	6·7	7·4	8·5	9·9	15·8	10·1
1878	15·9	15·1	13·7	12·8	13·2	11·5	9·6	10·9	11·9	12·3	...	12·4	12·5
1879	18·6	20·8	20·6	21·3	21·6	19·9	17·6	19·7	19·6	20·4	22·6	21·8	20·4
Tanjore.													
Average of 6 years ...	27·4	28·1	25·7	28·9	29·3	27·4	24·7	24·4	25·8	28·9	29·3	29·9	27·5
1876	27·8	27·0	27·4	26·6	27·3	25·3	24·2	23·2	22·6	24·0	17·2	11·1	23·8
1877	11·7	12·3	12·2	13·7	3·2	10·8	13·9	8·5	9·8	11·3	14·2	12·4	12·0
1878	14·7	15·1	13·2	15·0	15·1	12·8	12·0	11·5	13·6	16·0	14·8	13·8	13·9
1879	13·4	13·8	14·4	15·5	15·5	15·5	15·3	15·5	20·0	20·9	23·9	24·5	17·4
Trichinopoly.													
Average of 6 years ...	31·4	33·6	32·6	35·3	34·1	30·6	27·9	28·9	28·6	29·5	30·0	31·1	31·1
1876	31·4	32·0	31·6	28·0	34·1	35·1	33·4	34·8	25·7	25·2	16·7	10·6	28·2
1877	13·8	14·8	15·2	14·7	12·8	13·0	12·6	7·3	...	...	...	20·8	...
1878	32·6	35·0	23·3	21·0	21·7	11·2	9·6	9·7	10·8	14·3	13·1	17·3	18·3
1879	19·3	25·8	25·8	26·2	25·9	22·3	20·3	19·8	20·2	18·2	17·5	25·6	22·2
Madura.													
Average of 6 years ...	31·7	32·2	32·6	32·0	32·1	31·5	31·8	30·5	30·4	29·8	28·5	32·3	31·3
1876	35·9	33·2	34·9	35·6	35·1	32·4	29·9	29·1	27·2	22·5	13·9	13·6	28·6
1877	13·6	13·2	12·5	12·5	12·4	10·5	8·8	7·8	7·4	8·4	15·9	17·3	11·7
1878	22·1	25·7	19·4	16·0	18·1	12·2	11·3	13·2	12·8	13·3	21·1	22·2	17·3
1879	21·3	21·3	22·0	22·1	20·8	18·8	17·7	16·8	17·8	17·9	24·1	33·8	21·2

Districts.	Ragi.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
North Arcot.													
Average of 6 years ...	32·8	31·9	31·9	32·9	33·4	31·4	32·6	32·1	32·5	33·4	34·3	32·8	32·7
1876	22·5	22·4	22·0	21·9	23·1	21·3	21·5	19·4	12·4	14·6	11·6	8·6	18·4
1877	8·5	9·4	9·7	10·8	9·8	9·1	7·4	6·9	6·9	9·9	10·0	9·4	8·9
1878	10·6	10·2	9·9	11·8	12·7	10·3	10·3	11·0	15·9	17·9	17·3	17·6	12·9
1879	16·9	18·0	18·7	20·7	20·6	19·7	19·8	20·7	23·5	22·6	24·0	24·0	20·7
South Arcot.													
Average of 6 years ...	34·9	35·1	34·5	33·4	32·5	35·0	30·7	29·9	32·2	34·7	35·9	35·7	33·7
1876	25·0	24·5	23·6	23·3	23·9	24·2	23·3	23·4	24·5	22·6	14·7	10·3	21·9
1877	10·2	10·7	10·8	11·9	10·6	10·0	8·2	7·6	7·9	10·7	11·3	12·6	10·2
1878	15·0	13·5	12·3	12·1	12·5	11·0	9·4	10·9	15·8	19·5	19·0	19·5	14·2
1879	20·4	20·0	19·4	20·0	20·1	19·3	19·4	20·3	22·9	25·7	26·8	26·4	21·7
Tanjore.													
Average of 6 years ...	33·6	33·5	34·2	32·9	32·1	31·0	29·9	29·8	29·9	34·8	34·8	34·9	32·6
1876	29·8	29·0	28·1	28·8	25·8	26·8	26·4	25·9	26·4	24·3	16·6	11·3	24·9
1877	11·3	12·9	12·3	13·2	12·3	11·4	8·5	9·1	10·1	12·2	13·5	13·7	10·9
1878	16·5	15·7	14·0	15·0	15·2	13·5	12·6	13·1	16·1	18·2	16·8	15·6	15·2
1879	15·4	15·9	16·2	16·5	16·4	15·5	15·7	16·1	18·[illegible]	23·7	25·1	26·4	18·5
Trichinopoly.													
Average of 6 years ...	35·7	34·9	33·7	33·2	32·2	30·9	32·4	29·8	31·2	33·8	35·4	35·6	33·2
1876	29·6	37·0	25·7	26·2	26·3	27·0	25·6	24·3	24·0	22·2	15·7	10·4	23·7
1877	11·1	11·7	11·3	11·3	10·6	10·7	8·7	7·3	8·1	10·6	11·3	13·0	10·6
1878	16·0	16·4	12·9	13·7	13·6	11·8	10·4	10·8	15·1	18·3	16·4	16·9	14·3
1879	17·9	17·8	17·6	17·5	17·4	16·0	15·9	16·5	18·7	21·1	21·5	21·7	18·3
Madura.													
Average of 6 years ...	29·1	31·4	30·9	32·1	32·3	31·3	30·1	29·8	30·9	30·4	30·8	33·0	31·0
1876	34·2	32·2	30·4	31·2	30·8	29·0	27·0	26·5	26·3	23·5	14·4	10·8	26·3
1877	12·3	8·8	10·5	10·6	10·1	9·8	9·0	8·3	8·2	9·4	10·8	14·1	10·2
1878	17·3	16·3	11·5	14·2	14·2	11·5	11·1	12·4	15·0	15·9	15·6	17·1	14·3
1879	18·3	17·6	17·5	18·3	16·8	16·0	15·7	16·3	17·7	17·5	20·5	25·4	18·1

Table showing the Average Prices of Food in the Madras Presidency during 1876, 1877, 1878, *and* 1879 *compared with the Average of previous* 6 *Years*—(Continued).

Districts.	Second-sort Rice.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
Tinnevelly.													
Average of 6 years ...	11·8	12·1	12·9	13·3	12·9	12·3	12·1	12·1	12·0	12·3	12·3	12·3	12·4
1876	13·1	12·3	12·2	12·3	12·3	11·5	10·8	10·5	10·4	11·2	9·8	7·8	11·2
1877	7·7	7·9	9·3	9·0	8·6	8·1	7·1	6·7	6·4	7·8	9·4	9·2	8·1
1878	9·9	10·3	9·9	8·9	9·3	7·7	7·5	7·6	8·3	9·1	8·8	8·4	8·8
1879	9·0	8·8	9·4	9·9	9·5	8·5	8·7	9·3	10·0	11·1	11·8	12·6	9·9
Coimbatore.													
Average of 6 years ...	13·8	13·9	14·2	14·3	13·5	13·9	13·7	13·6	13·4	13·4	13·9	14·0	13·8
1876	12·9	12·8	12·9	12·7	12·7	12·2	11·9	...	...	...	8·7	7·8	...
1877	7·6	8·0	8·1	8·3	7·9	7·6	6·2	6·2	6·1	8·0	8·6	8·2	7·6
1878	9·3	9·6	8·8	8·9	8·6	7·8	7·7	8·1	8·6	9·5	9·9	10·0	8·9
1879	10·5	11·1	11·5	12·0	11·4	10·6	10·5	10·4	10·6	11·0	12·5	13·1	11·3
Nilgiris.													
Average of 6 years ...	9·7	9·8	9·8	10·0	9·8	9·7	10·2	9·8	10·2	9·6	9·7	9·6	9·8
1876	10·1	9·8	9·7	10·0	10·4	9·8	9·5	9·1	8·7	7·8	6·4	6·5	9·0
1877	6·7	7·4	7·6	7·5	7·4	6·6	5·5	5·6	5·3	6·0	6·4	7·0	6·6
1878	7·7	7·3	6·8	6·8	6·9	6·7	6·7	6·9	7·1	7·4	7·5	7·6	7·1
1879	8·1	8·9	9·0	9·2	9·0	8·9	8·7	9·0	9·2	9·0	9·4	10·1	9·0
Salem.													
Average of 6 years ...	16·7	16·3	16·5	16·6	16·7	16·1	15·7	15·6	15·7	16·2	16·7	16·8	16·3
1876	13·6	14·1	13·2	13·0	13·2	12·9	12·4	12·0	11·3	10·1	7·9	6·9	11·7
1877	7·0	7·4	7·3	7·9	7·3	7·0	5·8	5·6	5·4	7·7	7·8	8·6	7·1
1878	8·5	8·6	8·6	8·8	8·8	8·1	7·9	7·4	8·3	9·7	10·4	10·7	8·8
1879	11·4	11·5	11·4	11·9	11·6	10·1	10·3	10·5	11·3	11·7	12·5	11·9	11·3
South Canara.													
Average of 6 years ...	14·6	14·9	15·1	14·9	14·6	14·1	13·8	13·9	13·9	13·9	14·4	14·5	14·4
1876	14·7	14·3	13·8	13·0	12·5	12·4	12·5	12·4	12·7	12·5	10·7	10·6	12·6
1877	9·3	9·5	10·1	10·7	9·9	8·6	8·3	7·7	7·7	8·5	9·0	10·8	9·2
1878	11·7	11·1	9·9	9·4	9·4	9·6	9·8	10·0	10·5	10·8	10·2	10·0	10·2
1879	10·2	10·4	10·5	10·8	10·9	10·9	10·9	11·0	11·2	11·2	11·4	11·7	10·9
Malabar.													
Average of 6 years ...	13·4	13·2	13·5	13·3	13·1	13·3	12·9	13·0	13·5	13·9	13·7	13·6	13·4
1876	13·6	10·8	13·0	12·8	12·5	12·0	11·3	11·3	11·9	11·8	10·8	9·8	11·8
1877	9·1	9·4	9·7	10·0	9·5	8·7	7·8	7·5	7·8	9·9	10·1	10·6	9·2
1878	10·1	10·4	9·6	9·3	9·0	8·2	8·1	8·7	9·0	9·7	9·2	9·3	9·2
1879	9·8	10·3	10·1	10·4	10·2	9·9	10·0	10·3	10·6	11·4	11·9	12·1	10·6

Districts.	Cholum.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
Tinnevelly.													
Average of 6 years ...	21·9	21·6	22·3	25·9	24·5	23·7	22·9	22·3	22·7	23·3	22·6	22·7	23·0
1876	26·2	24·2	23·5	23·8	24·4	22·6	20·3	19·3	19·7	20·6	16·1	11·1	21·0
1877	12·9	13·6	10·9	10·1	11·2	11·8	9·1	8·7	8·8	8·9	10·7	12·2	10·7
1878	14·3	10·7	12·1	15·2	17·1	11·3	10·8	10·8	13·0	12·2	11·9	13·2	12·7
1879	15·9	17·8	16·1	16·3	14·0	13·5	13·5	13·9	15·0	17·2	18·2	20·0	15·9
Coimbatore.													
Average of 6 years ...	22·3	22·7	23·5	22·9	22·5	23·1	23·3	24·2	23·2	23·3	23·9	23·9	23·2
1876	20·9	21·2	21·1	20·2	20·3	20·0	19·3	...	...	...	12·2	8·3	...
1877	9·2	9·9	10·3	9·6	9·0	8·6	6·8	7·4	7·1	10·4	11·0	11·1	9·2
1878	12·6	13·6	12·5	12·2	11·3	10·2	10·3	11·6	13·1	15·5	15·8	17·4	13·0
1879	16·1	17·4	18·2	18·6	17·4	16·6	16·1	18·0	17·1	17·4	18·8	19·0	17·6
Nilgiris.													
Average of 6 years ...	17·3	16·3	17·2	16·8	15·3	16·4	16·9	17·5	18·1	18·2	18·3	18·1	17·1
1876	14·1	14·9	15·3	14·0	14·2	14·8	15·0	15·7	14·4	12·5	8·8	7·4	13·4
1877	8·2	8·8	8·4	7·8	7·7	7·6	6·6	5·8	6·0	7·0	7·0	8·4	7·4
1878	9·1	10·0	9·2	9·1	8·5	8·1	8·5	9·1	10·0	12·5	13·9	14·3	10·2
1879	14·8	14·8	15·4	16·1	15·6	15·5	15·5	16·4	17·3	17·3	16·5	16·9	16·0
Salem.													
Average of 6 years ...	33·5	31·3	30·5	31·1	30·3	31·1	30·9	30·3	30·2	31·5	32·3	31·5	31·2
1876	22·1	21·6	21·0	19·9	21·7	20·7	19·3	18·9	17·5	14·4	11·4	8·3	18·1
1877	8·2	9·3	8·9	9·4	8·4	8·3	7·9	6·5	6·3	8·3	8·8	9·0	8·3
1878	9·4	9·5	9·9	10·6	10·7	9·6	9·7	10·2	11·4	16·4	16·0	15·3	11·5
1879	14·7	15·7	17·5	18·4	17·1	16·7	17·2	17·9	18·7	17·6	17·2	17·5	17·2
South Canara.													
Average of 6 years ...	...	...	...	...	...	...	...	...	...	...	...	...	...
1876	...	...	...	...	...	...	...	...	...	...	...	...	...
1877	...	...	...	...	...	...	...	...	...	...	...	...	...
1878	...	...	...	...	...	...	...	...	...	...	...	...	...
1879	...	...	...	...	...	...	...	...	...	...	...	...	...
Malabar.													
Average of 6 years ...	...	18·2	15·2	16·1	19·6	17·8	...	...	28·2	...	...	...	19·2
1876	...	...	...	...	...	...	...	...	...	...	...	...	...
1877	...	9·7	...	...	...	...	...	...	...	...	...	...	9·7
1878	...	...	...	...	...	...	...	...	...	14·8	14·3	15·6	14·9
1879	16·9	17·0	...	...	...	...	...	...	...	...	...	...	16·9

Districts.	Ragi.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average.
Tinnevelly.													
Average of 6 years ...	25·8	26·3	26·3	26·4	25·6	24·5	23·6	23·7	24·3	24·9	24·0	26·5	25·2
1876	29·3	25·1	26·2	25·8	25·5	24·5	22·6	22·1	21·8	22·5	16·3	11·9	23·0
1877	12·3	11·7	10·6	11·0	10·4	9·9	8·6	8·2	8·1	7·9	12·8	20·5	11·0
1878	23·1	17·4	12·0	15·4	15·2	11·3	10·2	10·7	13·0	13·8	13·2	15·0	14·2
1879	17·0	15·6	15·3	15·6	14·7	13·4	13·7	14·7	17·0	18·1	19·8	22·7	16·5
Coimbatore.													
Average of 6 years ...	30·4	30·2	30·6	30·2	28·5	29·3	28·9	29·0	29·1	28·7	30·5	31·5	29·7
1876	24·0	24·3	23·8	22·9	23·6	22·6	21·6	...	...	...	14·6	10·7	..9
1877	10·2	10·5	10·3	9·9	9·5	8·8	7·8	7·0	7·8	11·0	12·8	14·2	9·
1878	14·0	15·0	10·6	13·7	12·3	10·7	10·0	11·5	15·5	21·4	20·5	21·0	14·7
1879	19·8	19·7	21·1	23·6	22·2	20·8	20·9	21·6	21·3	22·1	23·0	25·5	21·8
Nilgiris.													
Average of 6 years ...	21·1	20·2	19·9	19·9	19·7	19·6	19·8	20·2	20·1	19·9	19·8	20·9	20·1
1876	15·8	15·5	15·6	16·3	16·6	16·4	14·2	14·9	13·9	12·2	10·0	8·4	14·1
1877	8·4	8·7	8·8	8·7	8·7	8·0	6·6	6·4	6·7	7·5	8·3	9·2	8·0
1878	10·8	9·4	8·7	8·3	7·8	8·4	8·2	8·5	10·1	13·3	14·5	14·7	10·2
1879	13·9	14·7	15·7	16·4	16·1	15·0	15·5	16·1	17·2	16·8	16·7	17·5	15·9
Salem.													
Average of 6 years ...	36·5	35·6	35·3	36·4	35·5	36·4	34·4	33·3	36·1	37·2	37·8	36·6	35·9
1876	21·7	21·4	22·1	22·8	23·5	22·8	20·7	20·1	18·3	14·6	11·3	8·7	19·0
1877	8·4	9·4	9·0	9·0	8·5	8·3	9·6	6·2	6·3	9·1	9·9	10·0	8·7
1878	11·4	10·7	9·2	12·8	12·0	10·4	10·1	10·3	13·0	16·5	17·0	18·1	12·6
1879	17·6	17·4	20·0	23·7	21·6	19·2	18·9	19·5	20·3	20·5	21·1	21·1	20·1
South Canara.													
Average of 6 years ...	25·9	26·0	23·7	24·0	23·3	21·8	21·6	21·5	21·9	22·0	23·8	24·6	23·3
1876	18·9	18·5	18·5	17·4	17·7	17·5	16·0	16·0	15·0	16·5	12·7	11·5	16·3
1877	10·6	10·7	10·9	10·9	11·0	9·8	9·6	9·2	9·2	10·0	11·7	12·4	10·5
1878	12·1	11·6	10·1	10·4	10·5	10·5	10·4	10·8	10·9	11·3	12·6	12·1	11·1
1879	10·8	12·1	12·9	13·7	14·3	14·1	13·3	13·2	13·2	13·8	14·9	14·9	13·4
Malabar.													
Average of 6 years ...	25·8	24·3	26·4	24·9	24·7	25·4	24·5	25·1	25·1	25·9	26·0	26·3	25·4
1876	21·3	19·2	17·5	18·2	19·5	18·9	17·7	18·5	18·5	14·9	12·0	11·5	17·3
1877	11·0	11·4	12·0	11·8	11·0	9·4	9·5	8·6	9·0	9·7	11·5	13·3	10·

REGISTRATION OF VITAL STATISTICS.

Registration.

9. No changes have taken place in the method of registering vital statistics. The data as heretofore are collected by the village accountants and sent in to the Taluk authorities, by whom they are transmitted to the Collector's office, where the district returns are compiled.

10. This system answers fairly enough in districts where the village officers are subjected to the authority of the Collector, and where the Revenue officials take any interest in seeing that the returns are accurately made, but in large areas of Zemindari tenure the Collectors have no authority over village servants, and in such areas the vital statistics if returned at all are but imperfectly given.

11. In many villages, moreover, the accountants are non-resident, and they either do not hear of, or fail to register, many births and deaths that occur.

12. The machinery for registration might undoubtedly be improved by a simple legal measure defining the duties of village accountants and making the duty of reporting births and deaths to that official compulsory on every householder.

BIRTHS.

13. The population furnishing returns according to the last census was 28,991,267.

14. The total births registered was 477,762; of these 246,483 were males and 231,279 females. The proportion of male to female children born was 106·5 males to 100 females. The annual registered birth-rate to the population was 16·4 per mille—a rate that is evidently much below the truth, but is about 4·5 per mille above the registered birth-rate of 1878.

15. The most satisfactory feature in fact of the public health in 1879, was the recovery in the fecundity of the people in large areas of country affected by the food scarcity in 1876-77. Only in Nellore, Kurnool, Cuddapah, and Bellary did the births in 1878 keep much below the normal average, and in these districts it is well known that severe distress and suffering remained, long after the famine effects had disappeared in other parts of the Presidency.

16. In eight revenue districts the registered births in 1879 exceeded the registered deaths. In thirteen districts the deaths were in excess of births. Towards the end of the year there was a distinct improvement in the birth-rate in almost every district. The highest birth-rates have been returned from Madras Town (district), Chingleput, Tanjore, and Trichinopoly.

17. During the year the attention of Collectors of certain districts was called to the persistent low return of births, and special enquiry was made in selected villages. It was found that many births and many deaths had been omitted from the village lists, and that in many instances the registration was very imperfect. This of course was known before, but the defective registration applies to the deaths equally to the births, and increase or decrease is understood to be relative not positive.

18. There seems to be no good reason why registration results should not be as accurate in this as in any other country, and certainly if the work is worth doing at all, it is worth doing well.

19. The following table shows the number of births registered for a series of years:—

Years.	Population.	Births.	Birth Ratio per Mille.
1869	24,633,127	452,410	18·5
1870	24,125,526	439,063	18·1
1871	24,555,046	517,109	21·0
1872	30,147,779	554,379	18·3
1873	30,287,842	538,123	17·7
1874	30,360,221	580,709	19·1
1875	30,278,903	638,771	21·1
1876	29,157,056	632,113	21·6
1877	29,209,542	477,447	16·3
1878	29,127,205	348,657	11·9
1879	28,991,267	477,762	16·4

20. In the report for 1877 and 1878 attention was directed to the monthly birth ratios in famine as compared with non-famine districts. The table is continued below for 1879 to illustrate the recovery in the births under better influences and the retardation of recovery in those districts where the effects of famine were still evident in 1878 and 1879:—

Ratio of Births per Mille per Annum, 1879—Famine Districts.

Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Nellore	3·8	3·3	5·4	6·3	5·8	5·8	6·7	8·1	9·8	12·0	13·4	12·7
Madras	32·6	28·1	31·3	31·3	34·0	36·4	44·3	52·1	54·1	55·3	52·6	52·7
Chingleput	22·9	20·1	23·5	18·1	21·0	23·6	32·9	37·3	37·5	42·4	39·7	34·7
South Arcot	15·4	10·5	9·4	9·1	9·5	13·1	21·4	24·4	26·2	25·5	24·8	24·5
Trichinopoly	16·9	14·8	18·2	17·4	18·1	17·8	23·7	25·7	25·5	25·9	28·3	25·7
Madura	10·4	9·0	10·6	10·3	11·0	13·0	14·0	14·7	15·6	17·7	18·8	17·2
Tinnevelly	20·6	16·5	18·2	18·8	17·6	16·8	19·5	20·4	20·4	22·7	22·5	22·4
Kurnool	4·5	6·2	7·8	7·4	6·4	4·6	4·7	5·1	7·3	9·2	10·9	10·8
Cuddapah	6·6	7·1	9·7	9·3	8·9	8·7	10·5	12·9	13·6	14·1	13·7	15·1
Bellary	5·9	6·7	9·9	9·4	9·1	8·3	8·5	8·4	9·0	9·8	9·7	9·2
North Arcot	13·2	11·8	11·7	11·9	12·6	16·2	22·9	25·0	25·1	26·8	27·6	24·2
Salem	12·2	9·6	9·5	9·8	10·6	12·3	15·1	16·1	13·6	14·5	15·1	16·0
Coimbatore	9·0	10·2	10·0	9·9	10·2	11·4	15·8	17·5	17·4	16·3	15·1	16·7
Nilgiris	10·7	10·7	10·9	11·9	16·3	12·5	13·7	20·0	17·0	15·0	17·0	13·5

Non-famine Districts.

Ganjam	10·8	6·8	6·5	7·1	10·9	12·9	17·9	24·7	29·2	29·9	28·2	24·2
Vizagapatam	8·1	6·0	5·3	6·4	7·0	10·0	15·0	17·2	17·3	15·6	15·4	13·7
Godávari	13·1	10·2	9·6	10·4	12·9	13·0	18·6	17·6	17·8	22·0	22·6	20·5
Kistna	14·7	9·5	10·1	12·5	13·3	13·4	12·9	14·8	18·7	23·8	21·9	21·9
Tanjore	24·0	20·2	22·9	22·6	25·0	25·5	32·5	38·1	40·2	39·0	36·3	32·2
South Canara	14·6	13·1	12·6	13·2	15·2	18·4	21·7	21·1	20·1	17·5	18·5	20·6
Malabar	9·9	10·2	12·5	13·6	15·6	18·6	20·4	18·9	17·7	15·3	14·5	14·3

DEATHS.

21. The deaths registered in 1879 were 549,390, a number lower than in any year since 1874, showing that the people on the whole had recovered from the depressing influences of famine and pestilence which in the three former years had caused so great an excess of mortality.

22. Of the deaths 283,609 were males and 265,781 females. The proportion of male to female mortality which in the two former years had been 122·6 and 110·9 males to 100 females, respectively, fell to 106·5 males to 100 females. These proportions differed a good deal in different districts. In some districts the number of females dying was greater than of males. Where the male deaths are reported very much in excess, there is reason to suppose that registration has been defective, especially as regards female deaths.

23. The general death-rate to population was 18·9 per mille against 53·2 and 27·8, respectively, in 1877 and 1878, or against 18·1 per mille, the average of five years before the famine period.

24. The following table shows the aggregate mortality in the Madras Presidency for a series of years :—

Years.	Population.	Total Deaths.	Ratio per 1,000 of Population.
1869	24,633,127	451,981	18·3
1870	24,125,526	451,020	18·6
1871	24,555,046	444,371	18·0
1872	30,147,779	501,482	16·6
1873	30,287,842	506,894	16·4
1874	30,360,221	516,848	17·0
1875	30,278,903	641,260	21·1
1876	29,157,056	680,384	23·3
1877	29,209,542	1,556,312	53·2
1878	29,127,205	810,921	27·8
1879	28,991,267	549,390	18·9

25. It is only necessary to look at this table to see that the abnormal influences of the food-scarcity as affecting vitality had nearly passed away.

26. *Deaths in Town and Country Population.*—Table VI in Appendix gives the deaths from different causes in towns of 10,000 inhabitants and in the rural parts of the country separately. The town populations include 1,505,004 persons, and the rural populations 27,486,263 The death-rate in towns was 26·3 per mille against an average of 27·5 per mille in five years before the famine. The death-rate of the rural population was 18·5 per mille against an average of 17·3 per mille.

27. The higher death registration in towns is no doubt in part due to greater accuracy of registration, and the diminished death-rate in towns in 1879 shows that the people enjoyed a greater immunity than usual from fatal disease.

28. As regards cholera the town populations suffered in 1879 equally with the rural. In small-pox the rural districts had a slight advantage. Fevers prevailed with less fatality in towns than in the country. Bowel diseases were reported with nearly six times the frequency in towns beyond their prevalence in the country; injuries were in the same proportion in both, and "other causes" shows a larger proportion of entries in towns than in the village populations.

29. *Deaths according to Season.*—There is a seasonal curve in mortality as in births. The birth maximum invariably corresponds (allowing for the period of gestation) with the season of the year that follows the great summer heats.

30. Births for instance are at the maximum in July, August, and September—months which correspond with November, December, and January as regards conception.

31. The minimum birth period is in January, February, and March—months corresponding for conception with the period of the year when animated nature is exhausted by prolonged heat.

32. The causes affecting births must be causes in operation nine months before, but in regard to the effect of season on mortality the influences appear to be very certain and regular in their action.

33. The minimum death period in Madras is the hottest and driest period of the year. Mortality subsides with the increasing temperature of March and April, but reaches its lowest in May and June. It rises again rather suddenly in July and continues high through the rainy period of the south-west monsoon, and declines a little in October and November, but reaches its highest in the cold months of December, January, and February.

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Ganjam District during each Month of the Year 1879.

Taluks ...	Goomsur.				Chicacole.				Zemindaries.				Total.			
Population ...	134,769.				151,325.				533,712.				1,044,232.			
Total No. of Villages in each Circle.	1,035.				335.				3,337.				5,174.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January ...	4	1,692	14	8·2	3	7,159	26	3·6	...	...	...	...	8	24,389	44	1·8
February ...	2	2,912	6	2·0	1	1,339	1	0·7	...	...	...	...	3	4,251	7	1·6
March ...	3	3,091	9	2·9	...	...	...	...	2	3,099	5	1·6	5	6,190	14	2·2
April ...	...	...	...	...	...	...	...	...	...	...	...	...	1	1,867	1	0·5
May ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June ...	...	...	...	...	...	...	...	...	1	57	2	35·0	2	1,150	3	2·6
July ...	...	...	...	...	...	...	...	...	1	439	1	2·2	1	439	1	2·2
August ...	...	...	...	...	...	...	...	...	...	...	...	...	1	21,524	2	0·09
September ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December ...	...	...	...	...	...	...	...	...	...	69	1	14·4	1	69	1	14·4
Total ...	8	5,070	29	5·7	4	7,159	27	3·7	4	3,595	9	2·5	19	55,846	73	1·3

Taluks ...	Municipal Town Chicacole.				Berhampore.				Municipal Town Berhampore.				Total.			
Population ...	15,538.				187,364.				21,524.				1,044,232.			
Total No. of Villages in each Circle.	1.				465.				1.				5,174.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January ...	1	15,538	4	0·2	...	...	...	...	...	...	...	...	1	15,538	4	0·2
February ...	...	...	...	...	...	...	...	...	...	...	...	...	1	1,339	1	0·7
March ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April ...	...	...	...	...	1	1,867	1	0·5	...	...	...	...	...	...	...	...
May ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June ...	...	...	...	...	1	1,093	1	0·9	...	...	...	...	2	1,150	3	2·6
July ...	...	...	...	...	...	...	...	...	...	...	...	...	1	439	1	2·2
August ...	...	...	...	...	...	...	...	...	1	21,524	2	0·09	1	21,524	2	0·09
September ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	1	15,538	4	0·2	2	2,960	2	0·6	2	21,524	2	0·09	19	55,846	73	1·3

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Vizagapatam District during each Month of the Year 1879.

Taluks	Sarvasiddhi.				Narsapatam.				Anakápalle.				Municipal Town Anakápalle.				Vizagapatam.				Municipal Town Vizagapatam.			
Population	115,266.				28,732.				121,359.				13,038.				49,370.				31,462.			
Total No. of Villages in each Circle.	155.				228.				193.				1.				61.				1.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	5	8,900	26	2·9	...	...	...	...	4	10,088	22	2·2	1	13,038	68	5·2	5	6,818	54	7·9	1	31,462	28	0·8
February	1	3,771	27	7·1	1	3,241	2	0·5	4	9,685	10	1·0	1	13,038	21	1·6	1	2,069	2	0·8	1	31,462	24	0·7
March	3	9,838	48	4·8	...	...	...	...	1	953	2	2·1	...	...	...	...	1	440	4	9·0	1	31,462	9	0·2
April	...	...	...	...	1	4,621	4	0·8	...	...	...	...	1	13,038	4	0·3	2	1,871	3	1·6	...	...	...	...
May	...	...	...	...	1	1,872	1	0·5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	2	922	14	15·1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	3	3,888	9	2·3	5	2,119	25	11·7	...	...	...	...	1	13,038	3	0·2	...	...	...	...	...	...	...	...
September	1	495	1	2·0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	1	2,017	2	0·9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	10	14,696	113	7·7	8	10,503	46	4·3	8	14,521	34	2·3	1	13,038	96	7·3	7	8,689	63	7·2	1	31,462	61	1·9

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Vizagapatam District during each Month of the Year 1879—(Continued).

Taluks	Viravilla.				Bimlipatam.				Municipal Town Bimlipatam.				Srungavarapukota.				Vizianagram.				Municipal Town Vizianagram.				Gajapathinagram.			
Population	153,102.				69,297.				8,601.				76,870.				115,083				20,164.				101,145.			
Total No. of Villages in each Circle.	247.				113.				1				192.				153.				1.				218.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	3	9,735	16	1·6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	2	2,695	44	16·3	4	10,431	21	2·0	...	...	...	...	...	...	...	...	1	601	1	1·6	...	...	...	...	1	427	5	11·7
March	4	13,601	70	5·1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2,809	2	0·7	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	4	13,601	114	8·3	5	13,676	37	2·7	...	...	...	...	...	...	...	...	2	3,410	3	0·8	...	...	...	...	1	427	5	11·7

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Vizagapatam District during each Month of the Year 1879—(Continued).

Taluks	Chipurupalli.				Salur.				Bobbili.				Palkonda.				Parvatipur.				Total.			
Population	82,233.				40,377.				124,173.				110,685.				105,866.				1,366,823.			
Total No. of Villages in each Circle.	371.				217.				169.				341.				253.				2,915.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19	80,041	214	2·6
February	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	76,993	152	1·9
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	56,721	138	2·4
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	19,530	11	0·5
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1,872	1	0·5
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3,731	16	4·2
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	19,045	37	1·9
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	495	1	2·0
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4,952	2	0·4	2	6,969	4	0·5
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4,952	2	0·4	48	128,975	574	4·4

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Godávari District during each Month of the Year 1879.

Taluks	Ramachendrapuram.				Amalapuram.				Narsapur.				Bhimavaram.				Tanuku.			
Population	203,578.				206,885.				177,788.				92,457.				167,465.			
Total No. of Villages in each Circle.	164.				172.				139.				148.				180.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	8	13,345	85	6·3	9	21,338	142	6·6	23	42,644	69	1·6	13	16,274	97	5·9	20	29,839	125	4·1
February	4	8,881	11	1·2	10	24,255	43	1·7	3	3,749	8	2·1	6	8,536	11	1·2	3	2,955	18	6·0
March	1	927	1	1·0	5	10,976	14	1·2	...	...	...	...	...	...	...	...	1	638	9	14·1
April	3	5,896	40	6·7	1	689	1	1·4	1	6,819	6	0·8	...	...	...	...	1	639	8	12·5
May	9	16,606	91	5·4	...	...	...	...	...	...	...	...	1	1,121	1	0·8	12	22,646	43	1·8
June	33	37,000	366	9·8	17	29,824	81	2·7	5	7,626	9	1·1	13	15,879	73	4·5	39	53,078	471	8·8
July	105	141,858	1,374	9·6	54	94,600	530	5·6	12	19,273	58	3·0	33	34,649	225	6·4	59	75,753	328	4·3
August	58	82,831	318	3·8	60	86,864	278	3·2	7	25,625	22	0·8	17	22,431	94	4·1	19	30,953	74	2·3
September	12	10,953	42	3·8	18	28,158	52	1·8	8	15,623	23	1·4	2	1,123	2	1·7	3	3,537	17	4·8
October	1	1,670	2	1·1	3	6,305	21	3·3	2	4,927	16	3·2	1	683	3	4·3	5	5,048	9	1·7
November	1	2,020	11	5·4	...	...	...	...	...	...	...	...	...	...	...	...	2	1,389	8	5·6
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	132	174,327	2,341	13·4	96	136,499	1,162	8·5	41	78,429	211	2·6	58	63,477	506	7·9	85	100,369	1,110	11·0

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Godávari District during each Month of the Year 1879—(Continued).

Taluks	Ellore.				Municipal Town Ellore.				Yernagudiem.				Rajahmundry.				Municipal Town Rajahmundry.			
Population	111,382.				25,433.				145,714.				109,041.				19,622.			
Total Number of Villages in each Circle	247.				1.				214.				392.				1.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	25	21,463	155	7·2	1	25,433	107	4·2	6	7,532	38	5·0	3	10,120	50	4·9	1	19,622	61	3·1
February	4	5,733	27	4·7	1	25,433	5	0·1	7	12,411	28	2·2	4	14,222	39	2·7	1	19,622	5	0·2
March	...	...	...	...	...	...	...	...	1	2,628	2	0·7	2	2,140	49	22·9	1	19,622	2	0·1
April	...	...	...	...	...	...	...	...	...	...	...	...	1	4,394	1	0·2	...	...	...	...
May	...	...	...	...	1	25,433	9	0·3	2	2,679	7	2·6	2	1,147	2	1·7	...	...	...	...
June	10	12,743	41	3·2	1	25,433	50	1·9	3	3,900	9	2·3	9	17,858	189	10·5	1	19,622	1	0·05
July	9	8,409	28	3·3	1	25,433	2	0·07	40	45,228	412	9·1	21	23,027	613	26·6	...	...	...	...
August	3	1,278	6	4·6	1	25,433	2	0·07	21	26,194	133	5·0	18	17,421	159	9·1	1	19,622	3	0·1
September	...	...	...	...	...	...	...	...	6	9,087	21	2·3	8	13,563	46	3·3	...	...	...	...
October	1	267	1	3·7	...	...	...	...	...	...	...	...	2	7,702	39	5·0	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	41	40,008	258	6·4	1	25,433	175	6·8	60	65,206	650	9·9	46	50,295	1,187	23·6	1	19,622	72	3·6

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Godávari District during each Month of the Year 1879—(Continued).

Taluks	Peddapur.				Bhadrachalam.				Municipal Town Cocanada.				Zemindaries.				Total.			
Population	111,487.				27,695.				17,509.				176,047.				1,592,103.			
Total Number of Villages in each Circle	212.				...				1.				257.				2,128.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	4	16,732	22	1·3	...	...	...	...	1	17,509	4	0·2	7	9,502	30	3·1	121	251,353	985	3·9
February	2	6,425	5	0·7	...	...	...	...	1	17,509	5	0·2	4	16,520	4	0·2	50	166,251	209	1·2
March	...	...	...	...	...	...	...	...	1	17,509	1	0·05	11	12,099	24	1·9	23	66,539	102	1·5
April	...	...	...	...	3	...	14	...	...	...	...	...	11	15,988	53	3·3	21	34,425	123	3·5
May	1	9,202	3	0·3	2	...	11	...	1	17,509	4	0·2	9	30,523	100	3·2	40	126,866	271	2·1
June	2	10,759	3	0·2	...	...	...	...	1	17,509	40	2·2	12	17,706	90	5·0	145	268,937	1,423	5·2
July	9	20,521	61	2·9	...	...	...	...	1	17,509	20	1·1	40	50,457	319	6·3	384	556,717	3,970	7·1
August	14	24,846	130	5·2	...	...	...	...	1	17,509	4	0·2	38	46,968	283	6·0	257	427,975	1,506	3·5
September	7	18,812	52	2·7	...	...	...	...	1	17,509	1	0·05	8	36,814	44	1·1	73	155,179	300	1·9
October	5	2,679	11	4·1	...	...	...	...	1	17,509	2	0·1	1	306	1	2·9	22	47,096	105	2·2
November	1	336	1	2·9	...	...	...	...	...	...	...	...	...	...	...	...	4	37,445	20	5·3
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	22	33,506	288	8·5	5	...	25	...	1	17,509	81	4·6	85	131,153	948	7·2	674	935,833	9,014	9·6

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Kistna District during each Month of the Year 1879.

Taluks	Répalle.				Bápatla.				Guntoor.				Municipal Town Guntoor.				Palnád.			
Population	169,910.				143,615.				108,964.				17,984.				120,652.			
Total Number of Villages in each Circle ...	173.				105.				144.				1.				156.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	66	88,113	513	5·8	20	31,453	107	3·4	12	12,916	57	4·4	...	...	...	...	1	1,148	4	3·4
February	39	55,317	246	4·4	7	25,303	31	1·2	7	7,122	32	4·4	...	...	...	...	...	...	...	...
March	7	9,946	41	4·1	1	9,256	2	0·2	3	4,914	4	0·8	...	...	...	...	...	...	...	...
April	3	2,703	5	1·8	...	...	...	...	...	...	...	...	...	...	...	...	2	3,484	4	1·1
May	1	1,401	1	0·7	...	...	...	...	...	...	...	...	...	...	...	...	2	4,883	12	2·4
June	...	...	...	...	1	477	1	2·0	...	...	...	...	...	...	...	...	3	3,162	10	3·1
July	...	...	...	...	...	...	...	...	1	525	6	11·4	...	...	...	...	2	833	2	2·4
August	1	1,615	1	0·6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	85	116,079	807	6·9	23	42,342	141	3·3	22	27,870	99	3·5	...	...	...	...	7	8,897	32	3·6

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Kistna District during each Month of the Year 1879—(Continued).

Taluks	Narsaraopet.				Gudivada.				Sattanapalle.				Masulipatam.				Municipal Town Masulipatam.			
Population	120,617.				87,138.				101,727.				128,333.				36,015.			
Total No. of Villages in each Circle.	160.				246.				190.				198.				1.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	24	22,395	150	6·7	...	...	...	...	37	46,454	206	4·4	1	36,015	38	1·0
February	...	...	...	...	5	8,330	15	1·7	...	...	...	...	13	21,975	66	3·0	1	36,015	4	0·1
March	...	...	...	...	...	...	...	...	...	...	...	...	2	3,744	9	2·4	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	1	198	2	10·0	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	1	798	2	2·5	...	...	...	...	...	...	...	...
July	...	...	...	...	10	6,626	57	8·5	...	...	...	...	5	5,865	30	5·1	...	...	...	...
August	...	...	...	...	9	6,784	72	10·6	1	878	1	1·1	3	3,965	21	5·2	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	40	31,590	294	9·3	3	1,874	5	2·6	47	59,779	332	5·6	1	36,015	42	1·1

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Kistna District during each Month of the Year 1879—(Continued).

Taluks	Nandigáma.				Bezváda.				Vinukonda.				Zemindaries.				Total.			
Population	106,443.				83,035.				64,508.				163,125.				1,452,066.			
Total No. of Villages in each Circle.	182.				129.				119.				337.				2,141.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	2	3,422	3	0·7	13	26,026	84	3·2	...	...	...	...	28	18,847	213	11·3	204	286,789	1,375	4·7
February	1	991	6	6·0	1	585	1	1·7	...	...	...	...	8	5,443	22	4·0	82	161,081	423	2·6
March	...	...	...	...	...	...	...	...	...	...	...	...	2	1,037	8	7·7	15	28,897	64	2·2
April	6	12,069	47	3·8	...	...	...	...	2	5,429	26	4·7	7	4,032	35	8·6	20	27,717	117	4·2
May	6	12,977	20	1·5	...	...	...	...	...	...	...	...	5	2,091	21	10·0	15	21,550	56	2·5
June	1	744	2	2·6	...	...	...	...	...	...	...	...	6	7,038	37	5·2	12	12,219	52	4·2
July	1	1,448	1	0·6	...	...	...	...	...	...	...	...	12	7,532	103	13·6	31	22,829	199	8·7
August	...	...	...	...	...	...	...	...	...	...	...	...	3	2,625	6	2·2	17	9,867	101	10·2
September	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	1	837	2	2·3	1	837	2	2·3
Total ...	21	30,574	79	2·5	13	14,904	85	5·7	2	5,429	26	4·7	60	39,652	447	11·2	324	415,005	2,389	5·7

Table showing the particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Nellore District during each Month of the Year 1879.

Taluks	Gúdúr.				Rápúr.				Nellore.				Municipal Town Nellore.				Atmakúr.				Kavali.			
Population	147,116.				63,885.				149,846.				29,698.				103,802.				81,336.			
Total Number of Villages in each Circle.	211.				158.				174.				I.				148.				93.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1,274	2	1·5	1	889	2	2·2
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	1	5,062	2	0·3	..	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	1	5,062	2	0·3	...	...	...	...	1	1,274	2	1·5	1	889	2	2·2

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Kistna District during each Month of the Year 1879—(Continued).

Taluks	Nandigáma.				Bezváda.				Vinukonda.				Zemindaries.				Total.			
Population	106,443.				83,035.				64,508.				163,125.				1,452,066.			
Total No. of Villages in each Circle.	182.				129.				119.				337.				2,141.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	2	3,422	3	0·7	13	26,026	84	3·2	...	...	...	...	28	18,847	213	11·3	204	286,789	1,375	4·7
February	1	991	6	6·0	1	585	1	1·7	...	...	...	...	8	5,443	22	4·0	82	161,081	423	2·6
March	...	...	...	...	...	...	...	...	...	...	...	...	2	1,037	8	7·7	15	28,897	64	2·2
April	6	12,069	47	3·8	...	...	...	...	2	5,429	26	4·7	7	4,032	35	8·6	20	27,717	117	4·2
May	6	12,977	20	1·5	...	...	...	...	...	...	...	...	5	2,091	21	10·0	15	21,550	56	2·5
June	1	744	2	2·6	...	...	...	...	...	...	...	...	6	7,038	37	5·2	12	12,219	52	4·2
July	1	1,448	1	0·6	...	...	...	...	...	...	...	...	12	7,532	103	13·6	31	22,829	199	8·7
August	...	...	...	...	...	...	...	...	...	...	...	...	3	2,625	6	2·2	17	9,867	101	10·2
September	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	1	837	2	2·3	1	837	2	2·3
Total ...	21	30,574	79	2·5	13	14,904	85	5·7	2	5,429	26	4·7	60	39,652	447	11·2	324	415,005	2,389	5·7

Table showing the particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Nellore District during each Month of the Year 1879.

Taluks	Gúdúr.				Rápúr.				Nellore.				Municipal Town Nellore.				Atmakúr.				Kavali.			
Population	147,116.				63,885.				149,846.				29,698.				103,802.				81,336.			
Total Number of Villages in each Circle.	211.				158.				174.				I.				148.				93.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1,274	2	1·5	1	889	2	2·2
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	1	5,062	2	0·3	..	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	1	5,062	2	0·3	...	...	...	...	1	1,274	2	1·5	1	889	2	2·2

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Nellore District during each Month of the Year 1879—(Continued).

Taluks	Udayagiri.				Kundukúr.				Kanigiri.				Ongole.				Municipal Town Ongole.				Zemindaries.				Total.			
Population ...	100,962.				138,375.				127,258.				187,678.				7,388.				239,139.				1,376,483.			
Total No. of Villages in each Circle.	164.				232.				254.				197.				1.				551.				2,184.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	..	...	...	...	1	393	1	2·5	...	...	...	...	...	...	...	...	1	3,126	3	0·9	4	5,682	8	1·4
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August ...	...	...	...	...	...	...	...	...	...	...	...	...	1	1,122	2	1·7	...	...	...	...	...	...	...	...	2	6,184	4	0·6
September ...	...	...	...	...	...	...	...	...	...	...	...	...	1	1,545	1	0·6	...	...	...	...	...	...	...	...	1	1,545	1	0·6
October ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	1	393	1	2·5	2	2,667	3	1·1	...	...	...	...	1	3,126	3	0·9	7	13,411	13	0·9

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Chingleput District during each Month of the Year 1879.

Taluks	Saidapet.				Chingleput.				Madurántakam.				Conjeeveram.				Municipal Town Conjeeveram.				Tiruvallúr.				Ponnéri.				Total.			
Population	183,008.				132,271.				197,303.				130,695.				37,317.				149,774.				104,155.				934,523.			
Total No. of Villages in each Circle.	335.				440.				563.				460.				1.				339.				256.				2,394.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	1	2,040	5	2·4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2,040	5	2·4
April	1	4,283	1	0·2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	1	4,283	1	0·2
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	2	6,323	6	0·9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	6,323	6	0·9

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the South Arcot District during each Month of the Year 1879.

Taluks	Cuddalore.				Municipal Town Cuddalore.				Villupuram.				Chilambaram.				Municipal Town Chilambaram.				Tindivanam.			
Population	244,537.				39,940.				236,092.				223,605.				15,518.				239,688.			
Total Number of Villages in each Circle.	257.				1.				328.				492.				1.				547.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	1	815	5	6·1	1	39,940	2	0·05	1	1,314	5	3·7	14	11,806	71	6·0	...	...	...	...	...	...	...	...
February	...	...	...	...	1	39,940	9	0·2	...	...	...	...	6	3,465	16	4·6	...	...	...	...	...	...	...	...
March	...	...	...	...	...	...	...	...	1	1,422	1	0·7	2	1,515	2	1·3	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	1	1,818	1	0·5	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	1	815	5	6·1	1	39,940	11	0·3	3	4,554	7	1·5	18	15,180	89	5·8	...	...	...	...	...	...	...	...

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the South Arcot District during each Month of the Year 1879—(Continued).

Taluks	Kallakurchi.				Tirukoilúr.				Trinomalay.				Virudáchalam.				Total.			
Population	196,560.				216,238.				164,643.				178,503.				1,755,324.			
Total Number of Villages in each Circle ...	312.				383.				492.				305.				3,118.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	holera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	...	...	...	...	1	1,237	1	0·8	18	55,112	84	1·5
February	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	43,405	25	0·5
March	1	370	1	2·7	...	...	...	...	...	...	...	...	...	...	...	...	4	3,307	4	1·2
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	2	801	2	2·4	...	...	...	...	1	275	1	3·6	3	1,076	3	2·7
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	1	1,203	1	0·8	...	...	...	...	...	...	...	...	2	3,021	2	0·6
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	1	370	1	2·7	3	2,004	3	1·4	...	...	...	...	2	1,512	2	1·3	29	64,375	118	1·8

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Trichinopoly District during each Month of the Year 1879.

Taluks	Trichinopoly.				Municipal Town Trichinopoly.				Municipal Town Srirangam.				Musiri.			
Population	211,259.				75,306.				18,655.				257,173.			
Total Number of Villages in each Circle.	452.				1.				1.				234.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	3	5,619	3	0·5	1	75,306	1	0·01	1	18,655	1	0·05	...	...	...	...
February	4	4,138	4	0·9	...	...	...	...	...	...	...	...	...	...	...	...
March	3	5,113	3	0·5	...	...	...	...	...	...	...	...	...	...	...	...
April	6	8,842	6	0·6	...	...	...	...	...	...	...	...	...	...	...	...
May	4	4,466	4	0·8	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	2	4,720	2	0·4	...	...	...	...	...	...	...	...	1	1,059	1	0·9
August	2	3,627	2	0·5	...	...	...	...	...	...	...	...	1	2,158	1	0·4
September	1	1,473	1	0·6	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	22	24,883	25	1·0	1	75,306	1	0·01	1	18,655	1	0·05	2	3,217	2	0·5

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Trichinopoly District during each Month of the Year 1879—(Continued).

Taluks	Kulitalai.				Perambalúr.				Udayárpálaiyam.				Zemindaries.				Total.			
Population	228,306.				170,563.				237,893.				...				1,199,155.			
Total No. of Villages in each Circle.	249.				248.				489.				...				1,674.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	99,580	5	0·05
February	...	...	...	...	1	1,222	1	0·8	5	3,393	8	2·3	...	...	...	...	10	8,753	13	1·4
March	...	...	...	...	...	...	...	...	1	470	1	2·1	1	406	1	2·4	5	5,989	5	0·8
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	8,842	6	0·6
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4,466	4	0·8
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	5,779	3	0·5
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	5,785	3	0·5
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1,473	1	0·6
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	1	1,222	1	0·8	6	3,863	9	2·3	1	406	1	2·4	34	127,552	40	0·3

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Tanjore District during each Month of the Year 1879.

Taluks	Tanjore.				Municipal Town Tanjore.				Kumbakónam.				Municipal Town Kumbakónam.				Máyavaram.			
Population	292,114.				52,014.				296,587.				44,395.				198,048.			
Total No. of Villages in each Circle.	505.				1.				549.				1.				350.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	5	7,349	9	1·2	...	...	...	...	4	6,262	7	1·1	...	...	...	...	4	3,476	19	5·4
February	12	15,759	54	3·4	...	...	...	...	2	652	7	10·7	...	...	...	...	5	11,890	16	1·3
March	7	10,985	40	3·6	...	...	...	...	9	7,746	24	3·0	...	...	...	...	4	2,226	42	18·8
April	1	973	1	1·0	...	...	...	...	2	1,276	2	1·5	...	...	...	...	3	1,782	9	5·0
May	2	7,234	2	0·2	...	...	...	...	...	...	...	...	...	...	...	...	1	1,148	1	0·8
June	10	12,861	12	0·9	...	...	...	...	3	3,363	6	1·7	...	...	...	...	1	404	2	4·9
July	2	1,375	2	1·4	...	...	...	...	2	1,325	2	1·5	...	...	...	...	...	...	...	...
August	3	3,284	4	1·2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1,171	1	0·8
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	34	47,806	124	2·5	...	...	...	...	19	19,207	48	2·4	...	...	...	...	16	18,532	90	4·8

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Tanjore District during each Month of the Year 1879—(Continued).

Taluks	Municipal Town Máyavaram.				Shiyáli.				Nannilam.				Negapatam.				Municipal Town Negapatam.			
Population	21,160.				107,458.				207,405.				152,201.				48,075.			
Total No. of Villages in each Circle.	1.				210.				422.				345.				1.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	1	21,160	2	0·09	4	2,024	24	11·8	4	2,205	15	6·7	7	14,010	17	1·2	1	48,075	3	0·06
February	...	...	...	...	4	6,251	11	1·7	16	12,331	63	5·1	7	17,354	29	1·6	1	48,075	3	0·06
March	...	...	...	...	...	...	...	...	9	7,799	32	4·0	7	18,478	40	2·1	1	48,075	4	0·08
April	...	...	...	...	...	...	...	...	1	713	8	11·2	13	23,094	41	1·7	1	48,075	10	0·2
May	...	...	...	...	...	...	...	...	8	6,810	31	4·5	26	13,722	67	4·8	1	48,075	5	0·1
June	...	...	...	...	...	...	...	...	11	9,367	29	3·0	16	10,701	53	4·9	1	48,075	14	0·2
July	...	...	...	...	...	...	...	...	5	3,869	10	2·5	4	7,285	11	1·5	1	48,075	14	0·2
August	...	...	...	...	1	959	5	5·2	2	4,451	2	0·4	...	...	...	...	...	...	...	...
September	...	...	...	...	1	959	3	3·1	1	873	1	1·1	1	2,916	1	0·3	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	1	375	1	2·6	1	48,075	1	0·02
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	1	21,160	2	0·09	8	7,743	43	5·5	34	29,780	191	6·4	55	47,425	260	5·4	1	48,075	54	1·1

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Tanjore District during each Month of the Year 1879—(Continued).

Taluks	Mannárgudi.				Municipal Town Mannárgudi.				Tiruturaipúndi.				Pattukóta.				Total.			
Population	143,561.				17,682.				154,714.				237,406.				1,972,820.			
Total No. of Villages in each Circle.	331.				1.				246.				1,004.				3,967.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	2	1,653	10	9·4	...	...	...	...	7	5,628	19	3·3	...	...	...	...	39	111,242	125	1·1
February	3	4,034	4	0·9	...	...	...	...	1	2,118	1	0·4	4	3,625	6	1·6	55	122,089	194	1·5
March	6	5,182	18	3·4	1	17,682	1	0·05	...	...	...	...	2	1,997	7	3·5	46	130,170	208	1·5
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21	75,913	71	0·9
May	1	470	1	2·1	...	...	...	...	3	3,789	3	0·7	...	...	...	...	42	81,248	110	1·3
June	1	270	4	14·8	...	...	...	...	1	518	1	1·9	2	3,365	2	0·5	46	88,924	123	1·3
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	61,929	39	0·6
August	2	764	4	5·2	...	...	...	...	...	...	...	...	...	...	...	...	8	9,458	15	1·5
September	1	965	1	1·0	...	...	...	...	...	...	...	...	...	...	...	...	5	6,884	7	1·0
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	48,450	2	0·04
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	14	13,022	42	3·2	1	17,682	1	0·05	11	9,013	24	2·6	8	8,987	15	1·6	202	288,432	894	3·0

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Madura District during each Month of the Year 1879.

Taluks	Madura.				Municipal Town Madura.				Melúr.				Tirumangalam.				Periyakulam.			
Population	179,423.				51,806.				128,879.				241,209.				217,413.			
Total No. of Villages in each Circle.	439.				1.				94.				259.				82.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	2	3,773	10	2·6	1	51,806	1	0·01	...	...	...	...	...	...	...	...	...	...	...	...
March	2	1,318	2	1·5	1	51,806	1	0·01	1	9,199	13	1·4	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	1	9,199	1	0·1	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	4	5,091	12	2·3	1	51,806	2	0·03	1	9,199	14	1·5	...	...	...	...	...	...	...	...

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Madura District during each Month of the Year 1879—(Continued).

Taluks	Dindigul.				Municipal Town Dindigul.				Pulney.				Sittanandel Villages.				Total.			
Population	311,493.				12,811.				184,818.				1,255.				1,329,207.			
Total No. of Villages in each Circle.	217.				1.				131.				...				1,224.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	55,579	11	0·1
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	62,323	16	0·2
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	9,199	1	0·1
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	66,096	28	0·4

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Malabar District during each Month of the Year 1879.

Taluks	Cherakal.				Municipal Town Cannanore.				Kótayam.				Municipal Town Tellicherry.				Kurambranad.				Calicut.			
Population	206,315.				28,840.				142,448.				19,434.				243,640.				141,641.			
Total No. of Villages in each Circle.	44.				1.				27.				1.				57.				38.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	...	...	...	...	...	...	...	...	1	3,510	1	0·2	...	...	...	...	2	10,050	6	0·5	...	...	...	...
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	1	3,510	1	0·2	...	...	...	...	2	10,050	6	0·5	...	...	...	...

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Malabar District during each Month of the Year 1879—(Continued).

Taluks	Municipal Town Calicut.				Ernád.				Ponáni.				Valuvanád.				Pálghat.				Municipal Town Pálghat.			
Population	47,149.				287,680.				374,703.				292,447.				295,082.				30,689.			
Total No. of Villages in each Circle.	1.				52.				73.				64.				57.				1.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	4	25,597	26	1·0	2	12,183	25	2·0	4	21,753	5	0·2	1	8,267	1	0·1	...	...	...	...
February	...	...	...	...	1	8,661	2	0·2	...	...	...	...	2	10,194	8	0·7	...	...	...	...	...	...	...	...
March	...	...	...	...	...	...	...	...	...	...	...	...	1	5,569	10	1·7	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	4	25,597	28	1·0	2	12,183	25	2·0	7	31,947	23	0·7	1	8,267	1	0·1	...	...	...	...

Table showing particulars of Cholera Deaths in the different Taluks and Municipal Towns of the Malabar District during each Month of the Year 1879—(Continued).

Taluks	Wynaad.				Cochin.				Municipal Town Cochin.				Anjengo.				Tangachéri.				Total.			
Population	100,148.				5,697.				12,315.				...				...				2,228,228.			
Total No. of Villages in each Circle.	16.				3.				1.				...				...				436.			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January	...	...	...	...	...	...	...	...	1	12,315	19	1·5	...	...	...	...	...	...	...	...	14	90,147	82	0·9
February	...	...	...	...	...	...	...	...	1	12,315	9	0·7	...	...	...	...	...	...	...	...	5	34,680	20	0·5
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5,569	10	1·7
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	1	12,315	28	2·2	...	...	...	...	...	...	...	...	18	103,869	112	1·0

Table showing particulars of Cholera Deaths in the different Divisions of Madras (Town) District during each Month of the Year 1879.

Divisions	1st Division.				2nd Division.				3rd Division.				4th Division.				5th Division.			
Population	...				...				...				...				...			
Total No. of Villages in each Circle.	5				3				3				3				8			
Months.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.	No. of Villages affected.	Population of affected Villages.	Cholera Deaths.	Ratio per 1,000 of Population.
January ...	1	6,409	19	2·9	2	68,559	3	0·04	1	32,062	1	0·03	...	...	...	...	1	19,006	2	0·1
February ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	1	6,409	19	2·9	2	68,559	3	0·04	1	32,062	1	0·03	1	5,650	2	0·3	1	19,006	2	0·1

SECTION IV.

REMARKS ON THE SICKNESS, &c., OF THE ARMY AND SANITARY WORKS.

EUROPEAN TROOPS.

101. The total strength of the British Army on the 1st of January 1879 was 10,859, and on the 1st of January 1880 11,728. The increase was 869. The mean of the two totals is 11,293.

102. The hospital admissions during 1879 have been more numerous even than of last year, which, it was remarked in last annual report, was the highest since 1870.

103. This fact would seem to show that 1879 was even a more sickly season as regards European troops than the previous year, although the mortality was not so high.

104. The most sickly stations were Seetabuldee, Bangalore, Bellary, St. Thomas' Mount, Trichinopoly, and Kamptee; of these, two—Bellary and Trichinopoly—enjoyed this pre-eminence in last year's return.

105. The following table gives the ratios of admissions, daily sick, mortality, and invaliding since 1860 :—

Years.	Admitted.	Daily Sick.	Died in and out of Hospital.	Invalided.	
				Change of Climate.	For Discharge.
1860	1,448·5	59·9	20·9	49·6	8·1
1861	1,254·4	57·6	14·8	22·2	13·3
1862	1,295·4	62·1	18·5	18·7	9·5
1863	1,254·6	55·7	19·4	28·5	11·5
1864	1,538·4	65·5	20·5	51·0	14·0
1865	1,450·2	62·7	23·3	33·9	4·9
1866	1,490·5	69·1	22·2	46·1	10·5
1867	1,386·8	61·8	19·9	44·1	10·5
1868	1,399·4	62·4	20·6	52·8	9·5
1869	1,328·6	62·1	23·2	47·4	8·2
1870	1,481·5	63·6	19·7	70·4	6·6
1871	1,211·5	56·2	19·1	29·7	12·5
1872	1,352·3	59·7	19·2	26·8	11·2
1873	1,270·8	59·3	18·5	50·6	12·7
1874	1,141·2	57·6	13·4	29·5	8·3
1875	1,096·3	56·9	14·8	60·8	15·5
1876	1,132·9	55·2	16·1	31·9	10·9
1877	1,172·2	58·7	17·2	36·0	10·2
1878	1,379·7	65·8	22·1	36·6	9·1
1879	1,438·7	68·4	16·8	34·3	10·2

PRINCIPAL DISEASES.

106. Four cases of small-pox, none of which proved fatal, occurred; one in a soldier at Thayetmyo, one in a woman at Rangoon, and two in [illegible] one at Poonamallee and Thayetmyo

Small-pox.

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Fevers.

107. The table given below shows that the admissions into hospital of the European army during 1879 from fevers were even greater than in 1878, reported last year as being higher than in any year since 1870. The total admissions under fevers for the year under review is 4,177, of which 24 proved fatal. In 1878 the admissions were 3,720, of which 26 died. It will be observed that although the numbers admitted under fevers continue steadily to increase, the mortality is almost stationary: in 1876, 26; 1877, 24; 1878, 26; 1879, 24.

108. Intermittent fevers form by far the largest number of entries under this head, and as pointed out in last year's report are but seldom fatal. There were 2,617 cases of intermittent fever admitted, of which one died. This death occurred at Thayetmyo, and on looking up an account of the case, it is found that the man died of exhaustion; and on *post-mortem* examination he was found to have "a single large abscess of the liver." The ague here was most probably the symptomatic shivering of suppurative hepatitis.

Typhoid Fever.

109. Under typhoid fever there are but 7 entries according to the weekly returns received in the Sanitary Commissioner's Office; of these 5 proved fatal.

Continued and Remittent Fever.

110. The combined number of continued and remittent fevers amounts to 1,552, of which 18 died. Some of the cases might most probably have found a more appropriate admission under typhoid fever. For instance, in the station of Bangalore there are no admissions or deaths under typhoid fever, but 5 cases of continued and 1 of remittent fever proved fatal. In the *post-mortem* notes of these cases, one of which occurred in the left wing of the 2nd Battalion, 13th P.A.L.I., we read: "There was ulceration of Peyer's glands in small intestines in lower third. Ulceration of solitary glands in upper third of large intestines." So again in a fatal case in the K Battery 6th Brigade R.A., the *post-mortem* showed "about 12 ulcers in the last two feet of the ileum, of a size varying from $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter. One of the ulcers had penetrated the bowel by an oval opening, causing death, &c." In the 14th Hussars, in a fatal case of continued fever characterized by "excessive weakness throughout," in the *post-mortem* notes we find the following: "The ulceration of the intestines was chiefly in the ileum and very extensive, especially near the ileo-cæcal valve. The mesenteric glands were enlarged and indurated."

NOTE.—Since writing the above it has been ascertained that four of the cases of continued and that of remittent fever alluded to in the above paragraph were changed into typhoid fever in the returns received in the Surgeon-General's Office, A.M.D., but not communicated to this office, thus raising the number of admissions under this class of fever to 12 and deaths to 10. The figures have accordingly been altered in the table below:—

Table showing Admissions and Deaths among European Troops from Fevers compared with former years.

Years.	Typhoid Fever.		Continued Fever.		Remittent Fever.		Intermittent Fever.		Total Fevers.	
	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.
1868	9	6	462	3	168	4	1,259	1	1,898	14
1869	41	11	850	3	225	11	1,065	...	2,181	25
1870	44	14	737	1	51	7	3,989	...	4,821	22
1871	45	15	686	4	143	6	947	...	1,821	25
1872	79	26	1,499	5	79	3	1,323	...	2,980	34
1873	52	10	1,114	3	89	4	1,417	...	2,672	17
1874	34	12	1,321	1	43	...	710	...	2,108	13
1875	23	7	1,315	2	37	2	802	...	2,177	11
1876	51	21	1,508	4	33	1	586	...	2,178	26
1877	64	22	1,444	1	15	1	758	...	2,281	24
1878	7	5	1,940	13	180	8	1,593	...	3,720	26
1879	12	10	1,357	8	190	5	2,617	1	*4,177	24

* Inclusive of one case of scarlet fever.

Epidemic Cholera.

1. This disease prevailed only in three stations—Kamptee, Thayetmyo, and Tayrangoon. The peninsula of Southern India was comparatively free of this fell scourge, for of the 36 cases which appeared in this year's report, only 3, of which 2 proved fatal, occurred in India proper. In Thayetmyo alone 33 out of the 36 cases are recorded, of which 21 proved fatal. This station enjoys an unenviable reputation for cholera.

Apoplexy and Sunstroke.

112. There were 33 admissions and 12 deaths, which is considerably less than last year, when 28 deaths were registered.

113. Next to fevers *bowel diseases* furnish the largest number of admissions; there were 1,335 admissions and 13 deaths.

114. *Hepatic diseases* were numerous and apparently very fatal—606 admissions and 37 deaths.

Venereal Diseases.

1872	1,776
1873	1,683
1874	2,035
1875	2,152
1876	1,903
1877	2,450
1878	2,562
1879	2,593

115. From the figures in the margin it will be seen that venereal diseases suffer no diminution in number of admissions. The results of the famine, to which the large increase in 1877-78 was attributed, must in great measure have passed away, and yet a steady increase is observable.

The Health Officer of Madras attributes this to the want of authority in his department. He reports:—

"The Act works quietly, but I still have to complain of its easy evasion on account of the new rules, which requires all prostitutes to register themselves voluntarily.

"Sections 38 and 39 of the old rules gave power to the Police to arrest, without warrant, and prosecute any woman found publicly soliciting or found in the act of prostitution, whereas there is no such provision in the present rules.

"There was no famine in Madras in 1878-79, yet the number of females who had remained in the town during the past year was very considerable, and clandestine prostitution was carried on with the soldiers to a great extent, and the esplanade and neighbourhood were infested of an evening with women. In these cases the Health Officer is powerless for reasons already given."

116. The following table gives the particulars of admissions from venereal diseases amongst the Hospital and Lock Hospital during 1879:—

Table showing the relative prevalence of Primary, Secondary, and Gonorrheal Diseases amongst the British Troops and Registered Prostitutes of the Military Stations in the Madras Presidency during 1879.

Stations.	Troops.												Prostitutes.											
	Primary Syphilis.				Secondary Syphilis.				Gonorrhœal Diseases.				Primary Syphilis.				Secondary Syphilis.				Gonorrhœal and other Venereal Diseases.				Total Venereal Diseases.			
	Strength.	Admissions.	Ratio per 1,000 of Strength.		Admissions.	Ratio per 1,000 of Strength.			Admissions.	Ratio per 1,000 of Strength.			Strength.	Admissions.	Ratio per 1,000 of Strength.		Admissions.	Ratio per 1,000 of Strength.			Admissions.	Ratio per 1,000 of Strength.			Admissions.	Ratio per 1,000 of Strength.		
Bangalore ...	1,278	346	270·7		41	32·0			170	133·0			105	135	1,285·7		5	47·6			499	4,752·3			639	6,085·7		
Bellary ...	599	154	257·1		20	33·4			74	123·5			103	166	1,611·7		7	67·9			170	1,650·4			343	3,330·0		
Cannanore ...	428	27	63·0		3	7·0			79	184·5			53	33	622·6		...	...			171	3,226·4			204	3,849·0		
Calicut ...	95	5	52·6		1	10·5			28	294·7							No Lock Hospital.											
Kamptee ...	877	112	127·7		12	13·6			143	163·0			52	39	750·0		2	38·4			73	1,403·8			114	2,192·3		
Madras ...	462	49	106·0		15	32·4			117	253·2			1,338	431	322·1		51	38·1			525	392·3			1,007	752·6		
Maliyapooram ...	92	2	21·7		...	...			9	97·8							No Lock Hospital.											
Poonamallee ...	173	7	40·4		13	75·1			14	80·9			The women of these stations are sent to St. Thomas' Mount.															
Pallavaram ...	12	...	...		...	...			1	83·3																		
Port Blair ...	129	4	31·0		...	...			6	46·5																		
Ramandroog ...	17	1	58·8		3	176·4			...	...																		
Rangoon ...	754	69	91·6		6	7·9			63	83·5			467	499	1,068·5		166	355·4			140	299·7			805	1,723·7		
St. Thomas' Mount ...	306	59	192·8		6	19·6			51	166·6			64	90	1,406·2		...	...			99	1,546·8			189	2,953·1		
Secunderabad ...	2,181	226	103·6		71	32·5			235	107·8			292	442	1,513·6		...	...			301	1,030·8			743	2,544·5		
Seetabuldee ...	52	18	346·1		...	...			9	173·1			9	...	...		...	...			...	...			...	...		
Trichinopoly ...	164	25	152·4		6	36·6			26	158·5			59	92	1,559·4		4	67·7			178	3,016·9			274	4,644·0		
Thayetmyo ...	1,094	20	18·3		13	11·9			67	61·2			23	6	260·8		4	173·9			40	1,739·1			50	2,173·9		
Tongho ...	444	10	22·5		5	11·2			27	60·8			15	8	533·4		...	...			10	666·6			18	1,200·0		
Tayrangoon ...	354	7	19·8		8	22·6			10	28·2							No Lock Hospital.											
Wellington ...	473	37	78·2		20	42·2			43	90·9			40	39	975·0		...	...			121	3,025·0			160	4,000·0		
Total ...	9,984	1,178	117·9		243	24·3			1,172	117·4			2,620	1,980	755·7		239	91·2			2,327	888·1			4,546	1,735·1		

Table showing the Admissions and Deaths among Women belonging to the European Corps stationed in the Madras Presidency during the Year 1879.

| — | Stations. | | | | | | | | | | | | | | | | | |

CHILDREN.

120. The strength of the children belonging to the European troops was 1,966, and the admissions into hospital 1,459, of which 97 died. The total mortality was 100, 3 having died out of hospital. The death-ratio per mille was 49·3, considerably less than last year.

121. The following table shows the disease and cause of death :—

Table showing the Admissions and Deaths among the Children belonging to the European Corps stationed in the Madras Presidency during the Year 1879.

—	Bangalore.		Bellary.		Cannanore.		Calicut.		Kamptee.		Madras.		Mallapuram.		Poonamallee.		Pallavaram.		Port Blair.		Ramandroog.		Rangoon.		Saint Thomas' Mount.		Secunderabad.		Trichinopoly.		Thayetmyo.		Yongboo.		Wellington.		Total.	
Strength	356		99		189		9		162		171		13		84				1		5		133		67		371		48		56		47		154		1,966	
Admitted	227		137		80				154		135				59						25		95		35		293		42		24		23		130		1,459	
Died in hospital	9		13		2				8		5				3								19		1		20		4		1		3		10		97	
Do. out of do.															2												5										3	
Daily sick	6·08		5·09		2·79				4·13		4·93				5·44						1·16		2·86		1·89		10·15		1·24		0·63		1·08		3·69		51·16	
Diseases.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.
Small-pox																																						
Chicken-pox									4						1																1						2	
Measles																																					4	
Typhoid fever																																			2		51	
Continued do.	23		12		11	1			6						2																						1	
Intermittent do.	1		49	2					55		1												16				161		10				20		40		161	
Remittent do.			2						1		1										13		4				177		9				9				177	
Cholera									3																		6										6	
Influenza																											3										3	
Pertussis																																						
Atrophy and anæmia									3		1				1												13										13	
Ophthalmia											12	1			1												16										16	
Other eye diseases			17						12		9				20												1										1	
Convulsions	82								4	1	1												2		85		248		13		7		3		7		248	
Diseases of the brain and nervous system.	3	2	5	2	1				1		1												1	1	5		25		4		1		3				25	
Dysentery	13	1	1	1					1		1												1	1	1		6		1								6	
Diarrhœa	16		11		6	1			5		1				1						4		6		3		4						2		8		51	
Teething	3	1	10	3	4				19			1				1							3		12		5		2		1				1		120	
Tonsilitis	4		1		1				4		2				2								1		23						1				1		58	
Still-born									1		5														4						1				1		17	
Premature birth	1	1																																			1	
Vermes																																					1	
Other diseases	81	4	29	4	57				36	1	61				18	1			6				7		15	1	88	5	4	2	14		1	1	40		497	
Total	227	9	137	13	80	2			154	8	135	5			59	3			25				95	19	35	1	293	20	42	4	24		23		130	10	1,459	97
Ratio per 1,000 of Strength.	637·6	25·3	1,383·8	131·3	423·3	10·6			950·6	49·4	789·4	29·2			702·4	35·7			5,000·0				142·9	714·3	522·4	14·9	789·7	53·9	87·5·0	83·3	428·5		489·4	63·8	844·1	64·9	742·1	49·3

NATIVE ARMY.

Strength according to Adjutant-General's return.

122. From a return furnished by the Adjutant-General, the strength of the Madras Native Army consisted of 30,509 men on the 1st of January 1879. During the year this number received an addition of 2,326 men, viz., by "recruits" 2,092, by "transfers" 156, "joined from desertion" 11, and by "other causes" 67. The decrease amounted to 2,238, viz., by "invaliding" 1,191, by "discharges" 234 (by "summary dismissal" 186 and by court-martial 48), by "desertion" 111, by deaths 656, and by "other causes" 46; thus leaving the strength on the roll on the 31st of December 1879 at 30,597.

123. According to the weekly medical returns the average strength of the Native Army serving at stations of the Madras Command only, exclusive of troops or regiments serving out of the Presidency and on the march, was 22,033. Among this number there were 22,061 admissions into hospital. The average daily sick was 891·05 and the deaths numbered 314—in hospital 260 and out of hospital 54—exclusive of the casualties that occurred among men on furlough and sick leave in their native villages, which are not shown in the weekly medical returns. These figures give a per mille ratio to strength of admissions 1,001·2, average daily sick 40·4, and deaths in and out of hospital 14·2, which are compared with the results of previous years in the following table :—

—	Ratio per 1,000 of Strength.											
	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.
Admissions	707·7	702·5	630·6	693·9	1,067·9	883·2	772·7	777·7	726·8	832·2	793·2	1,001·2
Daily sick	29·0	29·3	26·4	26·9	34·7	31·3	30·0	30·7	28·2	28·8	29·7	40·4
Deaths in hospital	8·6	10·1	9·4	8·8	9·9	6·4	7·7	9·0	9·8	11·3	11·7	11·8
Do. out of do.	1·4	3·6	3·6	1·8	2·4	1·8	2·0	1·5	1·2	1·7	1·6	2·4
Invaliding *	16·4	24·5	25·6	23·3	28·4	30·8	33·5	39·3	37·1	30·5	52·6	38·9

124. The figures contrast unfavorably with the results of former years, and the sickness in 1879 appears higher than in any previous year except 1872 when the admission rate was higher. The high ratios of sickness in 1879 may be attributed to some of the Madras regiments having been detailed for active duty in unhealthy and sickly countries in the north to assist in quelling the disturbances in Rumpa, and from these parts the returns show that the sickness and mortality rates among the men were comparatively high. Again, in a few stations fever prevailed to some extent, which tended to swell the admission rates. Thus in Bellary the total admissions were 1,753·3 per mille, French Rocks 1,445·8, Mercara 1,618·9, Nicobars 8,200, and Port Blair 2,653·6. In Pallavaram also the sick rates are very high (admissions 3,298·0 per mille and daily sick 72·8). To this station a number of sick details was sent from Burmah, who sought constant and frequent admission into hospital.

Principal causes of sickness.

125. The principal causes of sickness among the Native Army were fevers, bowel-complaints (including dysentery and diarrhœa), and skin diseases. From violence and accidents also the admissions were somewhat high.

126. Cholera occurred in six of the stations occupied by Native troops, viz., in Kamptee 13 cases and 2 deaths, Rangoon 1 case which recovered, Sumbulpore 5 cases with 3 deaths, Thayetmyo 30 cases and 16 deaths, Trichinopoly 1 case which proved fatal, and Vizagapatam 9 cases with 6 deaths.

127. Small-pox occurred in 13 stations, viz., Bangalore (9), Berhampore (1), Kamptee (15), Palamcottah (1), Raipore (5), Rangoon (1), Secunderabad (1), Sum-

* Calculated on Adjutant-General's return.

hulpore (3), Thayetmyo (1), Trichinopoly (1), Vellore (1), Vizagapatam (4), and Vizianagram (6), making a total of 49 admissions with no deaths—a circumstance which speaks favorably for the protective influence of vaccination.

128. Fevers caused nearly one-half of the admissions into hospital, of which intermittent fever alone numbered 10,343.

1872	412
1873	410
1874	406
1875	456
1876	394
1877	539
1878	694
1879	606

129. Venereal diseases were less prevalent in 1879 than in the preceding year. This might have been expected, as the causes which led to undue prostitution in 1878 have, in a great measure, passed away. The admissions from this cause for a series of years are given in the margin.

STATIONAL SICKNESS AND MORTALITY AND ABSTRACT OF SANITARY NOTES, MILITARY.

130. Cantonment sanitary reports were received from the following 38 stations in the Madras Command occupied by European and Native troops. Besides these stations, detachments of Native regiments were located in the stations marginally noted during the year, and some regiments were detailed for active duty in the northern parts of the Presidency, to take part in quelling the disturbances in Rumpa. These regiments suffered much from sickness, principally fevers, having had to undergo all the hardships and discomforts of camp life in an unhealthy and malarious country.

Adatugala.
Basseen.
Chodaveram.
Kothapalli.
Prome.
Rajahmundry.

131. In the following pages are given the stational sickness and mortality of the troops serving at each station, and a brief abstract of the sanitary reports received. As a rule these reports are imperfectly drawn up, and the information they give in regard to the sanitary condition of, and the sanitary progress made in, each military station is generally very meagre.

Bangalore.

Latitude, 12° 58′.
Longitude, 77° 39′.
Height above sea, 3,000 feet.
Mean temperature, 75° 40′.
Average rainfall, 35 inches.
Rainfall in 1879, 40 do.

132. The troops which occupied this station during the year were as follows:—

Europeans.	Number of Weeks.
B Brigade R.A.	44
C do.	3
D-C do.	52
K-C do.	52
14th Hussars	52
Left Wing 2-13th Regiment.	52
Detach. 67th do. ...	46
Details	52

Natives.	Number of Weeks.
Queen's Own Sappers and Miners	52
4th Regiment N.I. ...	40
15th do. ...	41
Detach. 37th Regt. Grens. ...	12
Garrison	52

133. The table below gives the sickness and mortality compared with the average of previous years, and the principal causes of sickness. The medical officer reports that "primary syphilis increased nearly 50 per cent. among the European soldiers."

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength	1,278	1,499				
Total admissions	2,126	968	1,663·5	645·8	1,163·9	737·9
Daily sick	117·85	34·31	92·2	22·9	52·4	26·0
Deaths in hospital	15	11	11·7	7·3	12·2	11·3
Do. out of do.	1	4	0·7	2·7		

Principal Diseases.	A.	D.	A.	D.	Ratio for 1879. British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.
Small-pox	...	...	9	...	...	...	6·0	...
Fevers	464	6	360	2	363·0	...	213·4	1·3
Cholera	...	...	...	...	...	...	...	...
Rheumatism	59	...	41	...	46·1	...	37·3	...
Dysentery	110	1	15	...	86·0	0·7	10·0	...
Diarrhœa	78	...	20	...	61·0	...	13·3	...
Hepatic diseases	52	3	...	...	40·6	2·3	...	...
Venereal do.	557	...	65	...	435·8	...	43·3	...

Drainage ...	... Of the European barracks good.
Water-supply	... Fairly good, from Ulsoor tank, dhobies' wells and wells at Agram.
Conservancy and sanitary condition.	On the whole tolerably good; attended to by the Municipality; but the conservancy of the smaller streets and narrow lanes requires more attention. There are 44 latrines and 10 urinals, being on an average of one for every 1,000 people. These are cleaned daily and kept in good order. Dry-earth system is adopted. Sewage, night-soil, &c., are removed twice daily to a distance in air-tight receptacles.
Prices of food and meteorology.	Season favorable, and food abundant and cheap. 40 inches of rain fell against an average of 35 inches.
Cantonment rules	... In force. 101 women were on the register during the year. Detective agency not enough. Syphilis among the European soldiers generally on the increase. Detective agency should be increased. Recommendation made to this effect was rejected by the Madras Government.
Suggestions for sanitary improvements.	The bazaars should be built on an improved plan and more attention should be paid to the conservancy of the smaller streets and narrow lanes.
Sanitary works	... 1,900 feet of box and 9,081 feet of V-shaped drains and 60 dust-bins were constructed; 2 large double latrines were built and 2 others are in course of construction.
General health	... Satisfactory.

Bellary.

Latitude, 15° 10′.
Longitude, 76° 53′.
Height above sea, 1,500 feet.
Mean temperature, 80°.
Average rainfall, 16 inches.
Rainfall in 1879, 21 do.

134. The regiments given below were stationed in Bellary during the year:—

Europeans.	Number of Weeks.
G-C Brigade R.A.	45
O-C do.	6
2-13th Regiment	52

Natives.	Number of Weeks.
4th Regiment L.C. ...	52
Right Wing 25th Regt. N.I.	13
27th Regiment N.I. ...	39
Garrison	52

135. The stational sickness and mortality during the year are given in following table compared with the mean results of 13 previous years:—

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength	599	827				
Total admissions	1,363	1,450	2,275·4	1,753·3	1,204·2	560·9
Daily sick	65·42	37·26	109·2	45·1	64·2	24·3
Deaths in hospital	11	11	18·3	13·3	9·9	10·6
Do. out of do.	...	1	...	1·2		

Principal Diseases.	British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.	Ratio for 1879. British Troops. A.	Ratio for 1879. British Troops. D.	Ratio for 1879. Native Troops. A.	Ratio for 1879. Native Troops. D.
Small-pox	...	...	...	...	...	...	...	...
Fevers	850	5	931	4	1,419·0	8·3	1,125·7	4·8
Cholera	...	...	...	...	...	...	...	...
Rheumatism	10	...	42	...	16·6	...	50·7	...
Dysentery	22	1	30	1	36·7	1·6	36·2	1·2
Diarrhœa	10	...	6	1	16·6	...	7·2	1·2
Hepatic diseases	5	1	1	...	8·3	1·6	1·2	...
Venereal do.	248	...	30	...	414·0	...	36·2	...

136. The figures contrast unfavorably with the results of former years. Fevers of a malarious type, owing to the excessive rainfall and dampness, and venereal diseases enhanced the ratios of sickness to a certain extent.

Drainage ... ... Surface drainage in a fair state.

Water-supply ... From wells and tanks, of good quality.

Epidemics ... ... None.

Conservancy and sanitary condition. Fair. Dry-earth system adopted in the latrines, of which there are about 24. The night-soil and sewage from private houses are removed in carts by the Municipality and buried in pits. Sanitary state of bazaars is generally fair, but in some outlying stations it is unsatisfactory.

Prices of food and meteorology. Season was favorable, and food cheap and abundant. 21 inches of rain fell during the year, being 5 inches above the average.

Cantonment rules ... In force. 94 women were on the register and 33 under treatment. Venereal diseases were somewhat prevalent among the troops.

Suggestions for sanitary improvements. None.

Sanitary works ... None.

General health ... Tolerably good; but malarious fevers prevailed somewhat owing to the excessive rainfall and the great cold and dampness brought about by it.

Berhampore.

Latitude, 19° 20′.
Longitude, 84° 45′.
Height above sea, 112 feet.
Average rainfall, 45 inches.
Rainfall in 1879, 34·7 do.

137. The Right Wing of the 7th and Head-quarters of the 2nd Regiment Native Infantry occupied this station, the former for 50 and the latter for 2 weeks in the year. Their sickness and mortality are given below compared with former years.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Mean of 13 Years ending 1878.
Average strength	351		
Total admissions	147	418·8	646·4
Daily sick	5·51	15·7	28·4
Deaths in hospital	2	5·7	14·4
Do. out of do.	...	...	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	1	...	2·8	...
Fevers	60	...	170·9	...
Cholera	...	...	...	...
Rheumatism	7	...	19·9	...
Dysentery	3	...	8·5	...
Diarrhœa	1	...	2·8	...
Hepatic diseases	...	...	...	...
Venereal do.	2	...	5·7	...

Drainage ... ... Unsatisfactory. Only a few V-shaped drains exist in some of the principal streets. In other parts of the cantonment there are open shallow earth drains, which become filled in after the first shower of rain. More masonry drains are required.

Water-supply ... Obtained from wells; of good quality and sufficient.

Epidemics ... ... Small-pox prevailed both in the cantonment and native town.

Conservancy and sanitary condition. Sanitary condition not very satisfactory. Conservancy is attended to by the Municipality, and the sweepings, &c., are carried to a distance and deposited in pits. There are only a few public latrines, and they are not sufficient for the people. The sepoys have their own private latrines attached to each hut, which are cleaned by sweepers. Dry-earth system is imperfectly carried out in them.

Prices of food and meteorology. Rainfall though below the average, season was favorable and food abundant and prices moderate. 34·75 inches of rain fell during the year against an average of 45 inches.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. An improved system of drains and more latrines should be constructed, and people should be prevented from polluting the sources of drinking water.

Sanitary works ... None.

General health ... Small-pox and fevers prevailed.

Calicut.

Latitude, 11° 15′.
Longitude, 75° 52′.
Mean temperature, 78°.
Average rainfall, 114 inches.
Rainfall in 1879, 110 do.

138. This station was occupied by a detachment of the 48th Regiment throughout the year, and the sickness and mortality which affected it are given below. Only one man died out of hospital.

—	British Troops.		Ratio per 1,000 of Strength.	
			1879.	Mean of 13 Years ending 1878.
Average strength	95			
Total admissions	85		894·7	1,040·2
Daily sick	3·75		39·4	46·4
Deaths in hospital ...	...		...	18·3
Do. out of do.	1		16·5	
Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	...	...	...	...
Fevers	7	...	73·6	...
Cholera	...	...	...	...
Rheumatism	2	...	21·0	...
Dysentery	4	...	42·1	...
Diarrhœa	4	...	42·1	...
Hepatic diseases	4	...	42·1	...
Venereal do.	34	...	357·8	...

Drainage ... ... Natural drainage good, aided by surface drains. Requires no improvement.

Water-supply ... Of good quality and sufficient in quantity.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition of cantonment good, but outside military limits not very satisfactory. There is one public latrine. Night-soil from private privies and the sweepings, &c., are carted away and thrown into the sea.

Prices of food and meteorology. Season favorable and prices of food moderate. 110 inches of rain fell, being about 4 inches below the average of former years.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. None.

Sanitary works ... Nothing of importance.

General health ... Satisfactory.

Cannanore.

Latitude, 11° 54′.
Longitude, 75° 25′.
Height above sea, 15 to 30 feet.
Mean temperature, 78°.
Average rainfall, 120 inches.
Rainfall in 1879, ——

139. A detachment of the 48th Regiment and details and the 9th Regiment Native Infantry garrisoned this station throughout the year. Their sickness and mortality are given in the following table contrasted with the results of previous

years. The results of the British regiment compare unfavorably with former years, hepatic and venereal diseases giving high ratios.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength ...	428	651				
Total admissions ...	933	244	2,179·9	374·8	1,158·7	441·4
Daily sick	38·53	15·18	90·0	23·3	53·2	17·6
Deaths in hospital ...	4	3	9·3	4·6	15·8	6·6
Do. out of do. ...	1	6	2·3	9·2		

Principal Diseases.	A.	D.	A.	D.	Ratio for 1879. British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.
Small-pox	...	...	...	...	...	...	...	...
Fevers	32	...	39	...	74·7	...	59·9	...
Cholera	...	...	...	...	...	...	...	...
Rheumatism	35	...	19	...	81·7	...	29·1	...
Dysentery	35	...	7	...	81·7	...	10·7	...
Diarrhœa	39	...	7	1	91·1	...	10·7	1·5
Hepatic diseases ...	84	4	...	...	196·2	9·3	...	...
Venereal do.	109	...	12	...	254·6	...	18·4	...

Drainage ... ... Satisfactory, mostly surface drainage.

Water-supply ... From wells, good in quality.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition of cantonment satisfactory. Night-soil, sewage and other refuse, &c., are carted beyond municipal limits and buried. There are about 31 public latrines, 1 to every 1,000 people.

Prices of food and meteorology. Climate good and food abundant.

Cantonment rules ... In force; 55 women on the register, and about 16 were under treatment.

Suggestions for sanitary improvements. Nothing of importance. A few drains were repaired.

Sanitary works ... With the exception of a few minor repairs nothing of importance.

General health ... Generally good.

Chandah.

Latitude, 19° 55′.
Longitude, 79° 25′.
Average rainfall, 44 inches.
Rainfall in 1879, 67 do.

140. In this station a detachment of the 5th Regiment Native Infantry, 59 strong, was located during the year. The principal causes of sickness and mortality compared with previous years are shown in the following table. The detachment

appears to have suffered much from fevers, which caused more than one-third of the admissions into hospital.

—	Native Troops.		Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878.
Average strength	59			
Total admissions	62		1,050·9	1,681·7
Daily sick	1·73		29·3	46·1
Deaths in hospital ...	1		16·9	10·7
Do. out of do.	...		...	
Principal Diseases.	**A.**	**D.**	**Ratio for 1879. A.**	**Ratio for 1879. D.**
Small-pox	...	...	...	...
Fevers	21	...	355·9	...
Cholera	...	...	...	...
Rheumatism	3	...	50·8	...
Dysentery	2	...	33·8	...
Diarrhœa	3	...	50·8	...
Hepatic diseases	...	...	...	...
Venereal do.	...	...	...	...

Drainage ... ... Good.

Water-supply ... Good, from wells in the vicinity.

Epidemics ... ... With the exception of a few sporadic cases of cholera none to speak of.

Conservancy and sanitary condition. Sanitary condition fair. Conservancy attended to by the Municipality.

Prices of food and meteorology. Climate was good. Prices of food were rather high, though no scarcity existed. 67 inches of rain fell against a fall of 58 inches in the previous year.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. None.

Sanitary works ... Nothing of importance.

General health ... Generally good.

Cuttack.

Latitude, 20° 20′.
Longitude, 85° 57′.
Average rainfall, 60·6 inches.
Rainfall in 1879, 61·9 do.

141. This station was garrisoned by the 12th Regiment Native Infantry, 595 strong, during the year. The sickness and mortality is given in the following table contrasted with the results of former years. Fevers appear to have been the chief causes of admissions into hospital. Four deaths occurred, one from fever, one from phthisis, and two from diseases of the heart.

—	Native Troops.		Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878.
Average strength	595			
Total admissions	422		709·2	686·9
Daily sick	12·41		20·8	31·5
Deaths in hospital	4		6·7	8·1
Do. out of do.	...		...	
Principal Diseases.	**A.**	**D.**	**Ratio for 1879. A.**	**Ratio for 1879. D.**
Small-pox	...	...	...	...
Fevers	204	1	342·8	1·6
Cholera	...	...	...	...
Rheumatism	5	...	8·4	...
Dysentery	7	...	11·7	...
Diarrhœa	17	...	28·5	...
Hepatic diseases	...	...	...	...
Venereal do.	13	...	21·8	...

Drainage ... ... Defective from the low site of the lines. No drains of any kind exist, and the refuse waters, &c., soak into the ground.

Water-supply ... ... Of fair quality, from a tank and several wells near the lines.

Epidemics ... ... Small-pox prevailed in the town and made its appearance in the cantonment and lines, but no cases occurred among the troops.

Conservancy and sanitary condition. Sanitary condition of bazaar defective; no drains exist, houses are crowded and close together and the streets irregular. The sewage, &c., from private houses are removed by sweepers and buried by the river side. There are no public latrines.

Prices of food and meteorology. Climate was good and food abundant. 61·9 inches of rain fell, being above the average.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. V-shaped drains should be constructed along each row of huts, and many of the houses should be pulled down to relieve the crowded state of the cantonment.

Sanitary works ... None owing to want of funds.

General health ... On the whole fair.

French Rocks.

Height above sea, 3,300 feet.

142. The Right Wing 28th Regiment for 16 weeks and a detachment of the 40th Regiment Native Infantry for 36 weeks occupied this station. The stational strength averaged 240. The sickness and mortality is given below. Fevers and rheumatism and skin diseases caused the greatest number of admissions into hospital. Three deaths occurred in hospital, one from diarrhœa, one from effusion of the brain, the result of continued fever, and one from remittent fever.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 12 Years ending 1878.
Average strength	240		
Total admissions	347	1,445·8	735·4
Daily sick	9·84	41·0	25·5
Deaths in hospital	3	9·1	13·4
Do. out of do.	...	...	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	...	...	...	...
Fevers	187	2	779·1	8·3
Cholera	...	...	...	...
Rheumatism	20	...	83·3	...
Dysentery	6	...	25·0	...
Diarrhœa	10	1	41·5	4·1
Hepatic diseases	...	...	...	...
Venereal do.	3	...	12·8	...

Drainage ... ... Natural drainage good.

Water-supply ... Good, from wells and a large tank in the vicinity.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition satisfactory. There are about 5 public latrines, 2 to every 1,000 people. Sewage, night-soil, and other refuse are carried outside the station and used for cultivation.

Prices of food and meteorology Season was favorable and food abundant and cheap.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. V-shaped drains and dust-bins should be constructed.

Sanitary works ... None.

General health ... Tolerably good.

Hoshungabad.

Latitude, 22° 45′.
Longitude, 75° 50′.
Average rainfall, 46 inches.
Rainfall in 1879, 51·5 do.

143. The 3rd Regiment Native Infantry and the Left Wing 22nd Regiment Native Infantry occupied this station during the year, the latter only for three weeks. The stational strength was 378, and the sickness and mortality are given below compared with previous years. Five deaths occurred, one out of hospital. The causes of death were debility (1), laryngitis (1), mania (1), remittent fever (1), and softening of the brain, out of hospital, (1).

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878.
Average strength	378		
Total admissions	397	1,050·2	967·6
Daily sick	9·64	25·5	28·4
Deaths in hospital	4	10·5	13·0
Do. out of do.	1	2·6	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	...	...	...	...
Fevers	247	1	653·4	2·6
Cholera	...	...	...	...
Rheumatism	18	...	47·6	...
Dysentery	1	...	2·6	...
Diarrhœa	2	...	5·3	...
Hepatic diseases	...	...	...	...
Venereal do.	9	...	23·8	...

Drainage ... ... Fairly good.
Water-supply ... ... Good, from wells.
Epidemics ... ... With the exception of a few cases of small-pox no epidemic prevailed.
Conservancy and sanitary condition. Sanitary condition fairly good. Night-soil, sewage, &c., of private houses are carted away to a distance. The public latrines are kept clean.
Prices of food and meteorology. Season was fairly good and prices of food moderate. 51·5 inches of rain fell against an average of 46 inches.
Cantonment rules ... Not in force.
Suggestions for sanitary improvements. None.
Sanitary works ... Existing drains were cleaned and a few surface drains cut.
General health ... Fair.

Kamptee.

Latitude, 21° 16′.
Longitude, 79° 14′.
Height above sea, 1,500 feet.
Average rainfall, 42 inches.
Rainfall in 1879, 45·6 do.

144. This is a large station, and the troops which occupied it during the year are given below :—

Europeans.	Number of Weeks.	Natives.	Number of Weeks.
E-6th Brigade R.A. ...	44	2nd Regiment L.C.	52
G-6th do. ...	7	Right Wing, 2nd Regt. N.I. ...	41
L-6th do. ...	49	Left Wing, 3rd Regt. P.L.I. ...	35
M-6th do. ...	7	22nd Regiment N.I. ...	5
2-13th Regiment and Details.	1	Right Wing, 35th Regt. N.I. ...	6
33rd Regiment	52	Garrison	52

145. In the following table the sickness and mortality are given contrasted with previous years. The principal causes of sickness appear to have been fevers, both among the European and Native troops. Cholera and small-pox also prevailed to some extent. The European troops suffered somewhat from venereal diseases

also. Twenty-seven deaths occurred in the station among the troops; of these ten occurred in the Native regiments.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength	877	1,047				
Total admissions	1,403	882	1,599·7	842·4	1,655·2	800·7
Daily sick	54·48	26·60	62·1	25·4	62·2	26·8
Deaths in hospital	16	10	18 2	9·5	16·3	10·1
Do. out of do.	1	...	1·1	...		

Principal Diseases.	A.	D.	A.	D.	Ratio for 1879. British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.
Small-pox	...	...	15	...	...	...	14·3	...
Fevers	602	3	428	2	686·4	3·4	408·7	1·9
Cholera	2	1	13	2	2·2	1·1	12·4	1·9
Rheumatism	19	...	21	1	21·6	...	20·0	0·9
Dysentery	36	2	12	...	41·0	2·2	11·4	...
Diarrhœa	21	...	7	...	23·9	...	6·6	...
Hepatic diseases	24	4	1	...	27·3	4·5	0·9	...
Venereal do.	267	...	15	...	304·4	...	14·3	...

Drainage ... ... Good; the drains empty themselves into the Khanan and Bagdarrh rivers.

Water-supply ... ... Abundant and of good quality, from numerous wells.

Epidemics ... ... Cholera and small-pox prevailed. Of the former disease 15 cases occurred among the troops; of these 2 cases with 1 death occurred among the European, and 13 cases with 2 deaths among the Native, troops. No cases of small-pox occurred among the European troops, but 15 cases are recorded as having occurred among the Native troops. The following is an extract of the report of the Medical Officer of the outbreaks :—

"*Small-pox.*—Small-pox prevailed in some of the villages in the surrounding districts from February 1879. On the 15th March 1879 the Right Wing and Head-quarters of the 2nd Regiment Madras Native Infantry arrived at Kamptee from Berhampore, with 5 cases in camp and 6 convalescents. These were isolated and sent to Small-pox Camp Hospital outside the station for treatment. Soon after arrival the disease spread in the lines, 145 were attacked with 22 deaths (10 were sepoys, but all recovered). Last case on the 30th May 1879. There were a few cases in the bazaars, all recovered; none in the cantonment.

"*Cholera.*—Cholera prevailed in some of the villages in the surrounding district from April to July 1879. On the 14th April a villager was admitted into Cholera Camp Hospital outside Kamptee, and died a few minutes after admission. On the 15th April a sepoy of Left Wing 3rd Regiment Light Infantry was admitted and died, and on the 19th his daughter; this case proved fatal also. On the 3rd May 1879 Left Wing 2nd Regiment Madras Native Infantry arrived from Sumbulpur; they suffered severely while on the march from cholera. On the 10th May 1879, thirteen days after the last seizure, the disease again appeared in the wing in the regimental lines; there were 9 cases in Left Wing, 1 death; 24 cases in Right Wing, 8 deaths; last case on the 25th June. From 10th May to 23rd June there were a few cases in the bazaars and cantonment; 13 cases were sent to the Cholera Camp for treatment, 11 proved fatal.

"A severe outbreak occurred in the Roman Catholic Convent and Orphanage from 5th to 20th June 1879; 29 cases, 10 deaths. Dr. Rean, who was the Deputy Surgeon-General here at the time, was unable to trace importation from infected localities. During the prevalence of the epidemics the troops and their families were prevented from entering the native town and bazaars as far as possible, with very good results."

Conservancy and sanitary condition. Sanitary condition of the cantonment tolerably good, but the latrines having no roofs become a great nuisance during the rainy season. There are 50 public latrines, 1 to every 1,000 people, which are kept fairly clean. All night-soil, sewage, &c., from public latrines and private houses and other refuse are removed daily to the outskirts of the station, and are there buried in trenches which are afterwards ploughed up and cultivated.

Prices of food and meteorology. Season favorable and food abundant and cheap. 45·6 inches of rain fell against an average fall of 42 inches.

Cantonment rules ... In force; 54 women were on the register and 10 under treatment. Venereal diseases, principally primary syphilis, prevailed among the troops. The disease appears to have been contracted from female coolies and non-registered prostitutes.

Suggestions for sanitary improvements. The same suggestions made last year are made also this year, viz., that saucer drains be built in all the streets; that the wells be cleaned out every hot season; that parapet walls be built to all drinking water wells to prevent pollution of the water from surface drainage; that no latrines be allowed in private houses, unless the owners bind themselves down to keep them clean; that no covered latrines be built; that drains be cut in all the streets in both the bazaars for the drainage of storm waters; that more dust-bins be put up, and that rubbish, &c., in the dry season be burnt.

Sanitary works ... Drainage was better looked after. Several huts were knocked down in overcrowded localities and the ventilation of the bazaar improved. Two culverts, two dust-bins, one pucka and two mat latrines, and seven culverts were constructed during the year, and nine other culverts are in course of construction.

General health ... With the exception of the outbreaks of cholera and small-pox noted above the general health was tolerably good.

Madras (Fort St. George).

Latitude, 13° 4′.
Longitude, 80° 22′.
Height above sea, 5 to 15 feet.
Mean temperature, 82°.
Average rainfall, 59 inches.
Rainfall in 1879, 54 do.

146. The troops which occupied the station of Madras were as follows. All the European troops were accommodated in the fort, and the Native troops were located in different parts of the town.

Europeans.	Number of Weeks.	Natives.	Number of Weeks.
12-8th Brigade R.A. ...	52	10th Regiment N.I.	52
Detachment, 2-16th Regiment.	42	31st do.	9
Do. 89th do. ...	38	36th do.	27
43rd Regiment L.I.	20	39th do.	42
Details of Various Corps ...	52	Body Guard	52

147. The stational sickness and mortality is given below compared with previous years. There was nothing unusual in the health of the troops occupying Madras. The Native troops suffered somewhat from fevers, and venereal diseases considerably decreased among both Europeans and Natives, probably owing to the dispersion of famine wanderers who were lingering in the town in 1878, and who were the cause of the large admissions into hospital from this complaint in that year.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength ...	462	1,407				
Total admissions ...	793	1,156	1,716·4	821·6	1,347·7	662·1
Daily sick ...	34·76	44 97	75·2	31·9	73·8	25·5
Deaths in hospital ...	5	·2	10·8	1·4	19·9	11·3
Do. out of do. ...	...	2	...	1·4		

Principal Diseases.	A.	D.	A.	D.	Ratio for 1879. British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.
Small-pox ...	...	...	...	...	...	...	...	...
Fevers ...	194	...	557	...	419·9	...	395·8	...
Cholera ...	...	...	...	...	...	...	...	...
Rheumatism ...	17	...	62	...	36·7	...	44·0	...
Dysentery ...	13	1	41	...	28·1	2·1	29·1	...
Diarrhœa ...	21	...	23	...	45·4	...	16·3	...
Hepatic diseases ...	24	2	1	...	51·9	4·3	0·7	...
Venereal do. ...	181	...	46	...	391·7	...	32·6	...

Drainage ... That of the fort satisfactory, of the town unsatisfactory. Schemes are being devised for improving the drainage of the town.

Water-supply ... The troops in the fort and the population in it use the Seven Wells water, while the general population in the town and the Native troops located in it use Red Hills water and water from certain wells and tanks. The waters thus used are of good quality.

Epidemics ... None.

Conservancy and sanitary condition. The sanitary condition of the fort and the latrines in it is good. The conservancy of the town is attended to by the Municipality, who employ a special agency for the purpose. There are several public latrines scattered about the town, which are kept tolerably clean. Night-soil, sewage, refuse, &c., are carted away to a distance from the fort and town.

Prices of food and meteorology. Although the rainfall was somewhat below the average, the season was fair, and prices of food moderate. 54 inches of rain fell against an average of 59 inches.

Cantonment rules ... In force. There was a decrease of venereal diseases.

Suggestions for sanitary improvements. An improved system of drainage in the town should be established.

Sanitary works ... Nothing of importance.

General health ... On the whole tolerably good.

Maliyapuram.

Latitude, 11° 3′.
Longitude, 76° 9′.
Average rainfall, 81 inches.
Rainfall in 1879, ———

148. A detachment of the 48th Regiment, 92 strong, garrisoned this station during the year, and the sickness and mortality is given below compared with former years. The figures contrast unfavorably with the results of previous years. There was nothing unusual to account for this, but the returns show that the detachment suffered much from heat apoplexy and accidents; of the former there were 9 admissions and 2 deaths, and of the latter 17 admissions.

—	British Troops.	Ratio per 1,000 of Strength. 1879.	Mean of 13 Years ending 1878.
Average strength ...	92		
Total admissions ...	121	1,315·2	896·3
Daily sick ...	4·38	47·6	38·9
Deaths in hospital ...	3	32·6	15·1
Do. out of do. ...	...	...	

—	A.	D.	Ratio for 1879. A.	D.
Small-pox ...	...	...	...	...
Fevers ...	9	...	97·8	...
Cholera ...	...	...	...	...
Rheumatism ...	1	...	10·8	...
Dysentery ...	11	1	119·5	10·8
Diarrhœa ...	6	...	65·2	...
Hepatic diseases ...	9	...	97·8	...
Venereal do. ...	11	...	119·5	...

Drainage ... Satisfactory.

Water-supply ... Good, from wells.

Epidemics ... None.

Conservancy and sanitary condition. Sanitary condition of bazaar unsatisfactory. There are six public latrines, these and the regimental latrines are kept tolerably clean. Night-soil and other refuse are buried.

Prices of food and meteorology. Prices of food were moderate and the season was tolerably good, though the rainfall was below the average.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. None.

Sanitary works ... None.

General health ... On the whole favorable.

Mangalore.

Latitude, 12° 52′.
Longitude 74° 53′.
Height above sea, 40 feet.
Average rainfall, 130 inches.
Rainfall in 1879, 166 do.

149. The 34th Regiment Light Cavalry occupied this station throughout the year. The sickness and mortality are compared with the average results of previous years in the following table. The figures contrast unfavorably with former years. The heavy south-west monsoons affected the health of the regiment and increased

the admissions into hospital. Skin diseases, fevers, bowel-complaints and rheumatism were the prevailing diseases. Accidents also were common, causing 32 admissions into hospital. Six deaths were recorded, one out of hospital.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878.
Average strength	584		
Total admissions	500	856·1	461·3
Daily sick	18·76	32·1	17·3
Deaths in hospital	5	8·6	9·0
Do. out of do.	1	1·7	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	..	...	...	...
Fevers	82	1	140·4	1·7
Cholera	...	...	...	...
Rheumatism	42	...	71·9	...
Dysentery	30	1	51·3	1·7
Diarrhœa	24	...	41·0	...
Hepatic diseases	...	...	...	...
Venereal do.	9	...	15·4	...

Drainage ... ... Good.

Water-supply ... ... Obtained from wells and good.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition of station and latrines fair. Sewage from private houses is allowed to flow into the gardens attached to each house and used for cultivation. Night-soil from latrines and other refuse are removed to a distance and buried.

Prices of food and meteorology. Season was favorable for agricultural purposes, and food was abundant and cheap. The heavy south-west monsoon affected the health of the regiment. 166 inches of rain fell, being 41 inches above the average.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. None.

Sanitary works ... None.

General health ... Excessive rains caused much sickness.

Mercara.

Latitude, 12° 25′.
Longitude, 75° 15′.
Height above sea, 4,500 feet.
Average rainfall, 121 inches.
Rainfall in 1879, 150 do.

150. The Left Wings of the 28th and 40th Regiments Native Infantry were located at this station during 1879, the former for 17 and the latter for 36 weeks.

The stational sickness and mortality were as follows. Compared with the average of former years, sickness was higher, fevers being the prevailing disease, owing to excessive dampness caused by the heavy rainfall of the year.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878.
Average strength	412		
Total admissions	667	1,618·9	1,048·1
Daily sick	20·37	49·4	40·0
Deaths in hospital	1	1·8	13·9
Do. out of do.	...	...	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	...	...	...	...
Fevers	417	...	112·1	...
Cholera	...	...	...	...
Rheumatism	10	...	24·2	...
Dysentery	16	...	38·8	...
Diarrhœa	46	1	111·6	2·4
Hepatic diseases	...	...	...	...
Venereal do.	1	...	2·4	2·4

Drainage ... ... Surface drainage good.

Water-supply ... ... From wells and springs, of good quality.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition of station and bazaars generally satisfactory. In the public departments and jails the sewage, &c., is buried in pits and covered over with earth; but the excreta of the population generally are exposed to the sun and air, and finally flow into the stream below the town. In many houses the night-soil is buried in trenches and partially covered with earth. There is only one public latrine.

Prices of food and meteorology. Climate generally good. Food though abundant, prices were rather above the average. 150 inches of rain fell against an average of 121 inches.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. None.

Sanitary works ... None.

General health ... Generally good.

Moulmein.

Latitude, 16° 30′.
Longitude, 97° 30′.
Average rainfall, ——
Rainfall in 1879, 171 inches.

151. The Left Wing 33rd Regiment Native Infantry occupied this station during the year, and the sickness and mortality is given below. The detachment was generally healthy. Only one death occurred, from diarrhœa.

—	Native Troops.		Ratio per 1,000 of Strength.	
			1879.	Mean of 13 Years ending 1878.
Average strength	358			
Total admissions	65		181·6	1,012·5
Daily sick	4·58		12·8	41·1
Deaths in hospital	1		2·8	13·5
Do. out of do.	...		...	
Principal Diseases.	**A.**	**D.**	**Ratio for 1879. A.**	**Ratio for 1879. D.**
Small-pox	...	...	...	...
Fevers	5	...	13·9	...
Cholera	...	...	...	...
Rheumatism	4	...	11·1	...
Dysentery	5	...	13·9	...
Diarrhœa	14	1	36·3	2·7
Hepatic diseases	...	...	...	...
Venereal do.	9	...	25·1	...

Drainage ... ... Good.

Water-supply ... ... From wells and the river, of good quality.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition fair. Night-soil, sewage, &c., collected and buried in specially selected places.

Prices of food and meteorology. Season was favorable and prices of food moderate. 171 inches of rain fell.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. None.

Sanitary works ... It is in contemplation by the Municipality to introduce a water-supply scheme for the town.

General health ... Generally good.

Mysore.

Latitude, 12° 8′.
Longitude, 76° 44′.
Height above sea, 2,450 feet.
Average rainfall, 28 inches.
Rainfall in 1879, ———

152. Detachments of the 28th and 40th Regiments garrisoned this station during the year, the former for 17 and the latter for 36 weeks. The sickness and mortality are given below compared with the results of former years. No sanitary report was received from this station.

—	Native Troops.		Ratio per 1,000 of Strength.	
			1879.	Mean of 10 Years ending 1878.
Average strength	43			
Total admissions	35		813·9	776·0
Daily sick	0·97		22·6	13·4
Deaths in hospital	...		...	10·9
Do. out of do.	...		...	
Principal Diseases.	**A.**	**D.**	**Ratio for 1879. A.**	**Ratio for 1879. D.**
Small-pox	...	...	...	...
Fevers	23	...	534·8	...
Cholera	...	...	...	...
Rheumatism	...	...	...	...
Dysentery	1	...	23·2	...
Diarrhœa	3	...	69·7	...
Hepatic diseases	...	...	...	...
Venereal do.	...	...	...	...

Palamcottah.

Latitude, 8° 45′.
Longitude, 77° 48′.
Height above sea, 120 feet.
Average rainfall, 20 inches.
Rainfall in 1879, 32·7 do.

153. This station was occupied by the 37th Grenadiers and two companies of the 26th Regiment Native Infantry during the year, by the former for 40 and by the latter for 12 weeks. The stational sickness and mortality is given below contrasted with the results of former years.

—	Native Troops.		Ratio per 1,000 of Strength.	
			1879.	Mean of 13 Years ending 1878.
Average strength	516			
Total admissions	186		360·5	503·7
Daily sick	9·39		18·2	18·6
Deaths in hospital	3		5·8	8·7
Do. out of do.	2		3·9	
Principal Diseases.	**A.**	**D.**	**Ratio for 1879. A.**	**Ratio for 1879. D.**
Small-pox	1	...	1·9	...
Fevers	64	1	125·9	1·9
Cholera	...	...	...	...
Rheumatism	14	1	27·1	1·9
Dysentery	7	1	13·5	1·9
Diarrhœa	3	...	5·8	...
Hepatic diseases	...	...	...	...
Venereal do.	14	...	27·1	...

Drainage ...	... Fair.
Water-supply ...	... Of good quality, from wells.
Epidemics ...	... None.
Conservancy and sanitary condition.	Sanitary condition fair. Latrines are kept fairly clean; dry-earth system is adopted. Night-soil, sewage, &c., are removed twice a day by the Municipality.
Prices of food and meteorology.	Season was favorable and prices of food moderate. 32·74 inches of rain fell during the year.
Cantonment rules	... Not in force.
Suggestions for sanitary improvements.	A lock hospital is sadly wanted, as venereal diseases of a bad type prevail among the population.
Sanitary works	... None.
General health	... On the whole tolerably good.

Pallavaram.

154. This station is a depôt for Native troops, but detachments of the European troops located at the fort proceed thither from time to time for rifle practice. A detachment of twelve men of the 43rd Regiment had been there for ten weeks during the year for this purpose. Their sickness and mortality, as well as of the Native troops that occupied the station, are given below compared with the average of previous years. The figures contrast unfavorably with the results of former years, and would lead one to suppose that the station was very unhealthy; but such was not the case. The station on the whole was tolerably healthy during the year, but the depôt received a large number of sick details from Burmah, which enhanced the admissions into hospital, thereby raising the ratio of sickness considerably above the average.

155. A company of the European Artillery Veterans is also permanently located in this station. Their sickness and mortality are not shown here.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength	12	151				
Total admissions	8	498	666·6	3,298·0	455·7	1,290·9
Daily sick	0·47	42·05	39·2	278·5	26·3	105·8
Deaths in hospital	...	11	...	72·8	12·9	35·7
Do. out of do.	...	...	...	...		

Principal Diseases.	British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.	Ratio for 1879. British Troops. A.	Ratio for 1879. British Troops. D.	Ratio for 1879. Native Troops. A.	Ratio for 1879. Native Troops. D.
Small-pox	...	...	...	...	...	...	...	...
Fevers	1	...	166	4	83·3	...	1,099·6	26·4
Cholera	...	...	...	...	...	...	...	..
Rheumatism	1	...	25	...	83·3	...	165·5	...
Dysentery	2	...	18	1	166·6	...	119·2	6·6
Diarrhœa	1	...	33	2	83·3	...	218·5	13·2
Hepatic diseases	...	...	1	...	...	...	6·6	...
Venereal do.	1	...	10	...	83·3	...	66·2	...

Drainage ...	... Satisfactory.
Water-supply ...	... Good, from covered wells.
Epidemics ...	... None.
Conservancy and sanitary condition.	Sanitary condition of station, bazaars and latrines good. There are four public privies, 1 to every 600 people. Night-soil, sewage, and other refuse are removed to a distance out of the cantonments in carts.
Prices of food and meteorology.	Season was fair and prices of food moderate. 47·9 inches of rain fell, being about the average fall.
Cantonment rules	... In force. Only 8 women on the register. The average number under treatment was 2.
Suggestions for sanitary improvements.	None.
Sanitary works	... Nothing of importance.
General health	... Generally good.

Poonamallee.

Latitude, 13° 0′.
Longitude, 80° 10′.
Mean temperature, 80°.
Average rainfall, ———
Rainfall in 1879, ———

156. This is a depôt for European troops. The average strength during the year was 173, and the sickness and mortality were as follows compared with the mean results of former years :—

—	British Troops.	Ratio per 1,000 of Strength. 1879.	Mean of 13 Years ending 1878.
Average strength	173		
Total admissions	212	1,225·4	2,726·4
Daily sick	20·82	120·3	222·8
Deaths in hospital	6	34·6	59·7
Do. out of do.	...	...	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	...	...	...	...
Fevers	14	...	80·9	...
Cholera	...	...	...	...
Rheumatism	6	...	34·6	...
Dysentery	47	1	271·6	5·7
Diarrhœa	6	1	34·6	5·7
Hepatic diseases	28	...	161·8	...
Venereal do.	34	...	196·5	...

Drainage ...	.. Good.
Water-supply ...	... Obtained from wells, good.
Epidemics ...	... None.
Conservancy and sanitary condition.	Sanitary condition satisfactory. Night-soil, sewage, and other refuse are carried to a distance and buried.
Prices of food and meteorology.	Climate healthy and food abundant and cheap.
Cantonment rules	... In force. 19 women were on the register, and the average number under treatment was 15.
Suggestions for sanitary improvements.	None.
Sanitary works	... Nothing of importance. Some drains and a tank were repaired and cleaend.
General health	... On the whole good.

Port Blair (Andamans).

Latitude, 12° 0′.
Longitude, 92° 50′.
Average rainfall, 115 inches.
Rainfall in 1879, ——

157. This station was garrisoned during the year by a detachment of the 89th Regiment and a detachment of the 23rd Regiment Native Infantry. Their sickness and mortality are given below compared with the mean results of former years. Fevers were very prevalent among the Native troops.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength	129	589				
Total admissions	171	1,563	1,325·5	2,653·6	903·7	1,515·9
Daily sick	5·24	42·36	40·6	71·9	36·3	52·8
Deaths in hospital	1	17	7·7	28·8	10·7	12·4
Do. out of do.	1	1	7·7	1·7		

Principal Diseases.	British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.	Ratio for 1879. British Troops. A.	Ratio for 1879. British Troops. D.	Ratio for 1879. Native Troops. A.	Ratio for 1879. Native Troops. D.
Small-pox	...	...	...	...	...	...	...	...
Fevers	33	...	1,207	5	255·7	...	2,049·2	8·4
Cholera	...	...	...	...	...	...	...	...
Rheumatism	5	...	30	...	38·7	...	50·9	...
Dysentery	1	...	14	...	7·7	...	23·7	...
Diarrhœa	5	...	17	2	38·7	...	28·8	3·3
Hepatic diseases	8	...	2	...	62·0	...	3·3	...
Venereal do.	10	...	7	1	77·5	...	11·8	1·6

Drainage ... ... No information given.
Water-supply ... ... Obtained from wells and tanks, of good quality.
Epidemics ... ... None.
Conservancy and sanitary condition. Sanitary condition fair. Night-soil, &c., are carried in air-tight receptacles and buried far from habitations.
Prices of food and meteorology. No information given.
Cantonment rules ... Not in force.
Suggestions for sanitary improvements. None.
Sanitary works ... None.
General health ... With the exception of the prevalence of fevers nothing remarkable.

Quilon.

Latitude, 8° 53′.
Longitude, 76° 33′.
Average rainfall, 111 inches.
Rainfall in 1879, 73 do.

158. An average of 430 men of the 26th Regiment Native Infantry occupied this station during the year. The sickness and mortality is given below contrasted with former years. Fevers and skin diseases prevailed somewhat and accidents were of rather frequent occurrence.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Mean of 13 Years ending 1878.
Average strength	430		
Total admissions	270	627·9	489·8
Daily sick	17·09	39·7	22·8
Deaths in hospital	1	2·3	8·7
Do. out of do.	1	2·3	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	...	...	...	...
Fevers	34	1	79·0	2·3
Cholera	...	...	...	...
Rheumatism	5	...	11·6	...
Dysentery	8	..	18·6	...
Diarrhœa	5	...	11·6	...
Hepatic diseases	...	...	...	...
Venereal do.	9	...	20·9	...

Drainage ... ... Surface drainage principally, and worked well during the year.
Water-supply ... ... From pucka wells, good and sufficient.
Epidemics ... ... None.
Conservancy and sanitary condition. Sanitary condition satisfactory; but during the monsoon, when the rains interfere with their proper working, the latrines become a nuisance. Night-soil, sewage, &c., of the troops are carted away outside the cantonment and used for cultivation; but from private houses, it is feared, are sometimes thrown into the neighbouring nullahs and water-courses. There are two public latrines, which are kept clean on the dry-earth system.
Prices of food and meteorology. Climate was healthy and prices of food moderate. 73 inches of rain fell against an average of 111 inches.
Cantonment rules ... Not in force.
Suggestions for sanitary improvements. None.
Sanitary works ... Drains were kept in good order and 237 trees were planted along the sides of roads.
General health ... Generally good.

Rangoon.

Latitude, 16° 46′.
Longitude, 96° 20′.
Height above the sea, 80 feet.
Average rainfall, 114 inches.
Rainfall in 1879, 113 do.

159. The troops that occupied this station during the year are given below :—

Europeans.	Number of Weeks.
10-8th Brigade R.A. ...	12
11-8th do.	52
54th Regiment	42
89th do.	52

Natives.	Number of Weeks.
C Company Sappers and Miners	31
D do. do. ...	8
E do. do. ...	6
F do. do. ...	5
22nd Regiment N.I. ...	39
24th do.	52
Garrison	52

160. The stational sickness and mortality are shown in the following table contrasted with the mean results of former years. Fevers prevailed to some extent both among the European and Native troops, and venereal diseases also were somewhat common.

—	British Troops.		Native Troops.		Ratio per 1,000 of Strength. 1879. British Troops.	Ratio per 1,000 of Strength. 1879. Native Troops.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878. British Troops.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878. Native Troops.
Average strength ...	754		1,653					
Total admissions ...	1,123		2,440		1,489·3	1,476·1	1,256·9	622·6
Daily sick	43·45		114·47		57·6	69·2	55·6	29·7
Deaths in hospital ...	8		32		10·6	19·3	14·6	10·4
Do. out of do. ...	2		2		2·6	1·2		
Principal Diseases.	**A.**	**D.**	**A.**	**D.**	**Ratio for 1879. British Troops. A.**	**Ratio for 1879. British Troops. D.**	**Ratio for 1879. Native Troops. A.**	**Ratio for 1879. Native Troops. D.**
Small-pox	...	...	1	...	...	...	0·6	...
Fevers	504	1	1,203	8	668·4	1·3	727·7	4·8
Cholera	...	...	1	...	...	...	0·6	...
Rheumatism	13	...	73	...	17·2	...	44·1	...
Dysentery	28	1	160	6	37·1	1·3	96·7	3·6
Diarrhœa	59	...	97	7	78·2	...	58·6	4·2
Hepatic diseases	34	2	2	1	45·0	2·6	1·2	0·6
Venereal do.	138	...	65	...	183·0	...	39·3	...

Drainage ... ... Fairly satisfactory.

Water-supply ... ... Of good quality, from wells.

Epidemics ... ... None, but one case of cholera occurred among the Native troops in the 24th Regiment, the origin of which could not be traced. The man recovered.

Conservancy and sanitary condition. Sanitary condition satisfactory. Night-soil, &c., are carted away and buried. There are 11 public latrines, which are kept in good sanitary condition.

Prices of food and meteorology. Climate unfavorable. There was an unusually heavy monsoon, causing much fever. 113 inches of rain fell against 85·4 in 1878. Prices of food were comparatively cheap.

Cantonment rules ... In force. 467 women were on the register and the average number under treatment was 122. The Police supervision is insufficient.

Suggestions for sanitary improvements. None.

Sanitary works ... A system of water-supply by pumping into a tank house and distributing therefrom is almost under completion; five new wells were constructed and a hospital for contagious diseases built.

General health ... Unsatisfactory, owing to the excessive rains that fell during the year.

Ramandrug.

Latitude, 15° 8′.
Longitude, 76° 33′.
Average rainfall, 54 inches.
Rainfall in 1879, 41 do.

161. This is a convalescent depôt for European troops. On an average 17 men were sent to this hill station during the year, and the sickness among them is given below compared with former years. There were no deaths.

—	Her Majesty's Convalescent Depôt.		Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878.
Average strength ...	17			
Total admissions ...	45		2,647·0	1,473·6
Daily sick	1·26		74·1	9·6
Deaths in hospital ...	...		...	12·6
Do. out of do. ...	...		...	
Principal Diseases.	**A.**	**D.**	**Ratio for 1879. A.**	**Ratio for 1879. D.**
Small-pox	...	...	...	...
Fevers	30	...	1,764·7	...
Cholera	...	...	...	...
Rheumatism	...	...	...	...
Dysentery	...	...	...	...
Diarrhœa	1	...	59·2	...
Hepatic diseases ...	...	...	...	...
Venereal do.	4	...	235·2	...

Drainage ... ... Good and satisfactory.

Water-supply ... ... Very good, obtained from springs in the sides of the hill.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition good. Night-soil, sewage, &c., are removed and buried at a distance by the sides of the hill.

Prices of food and meteorology. Climate was healthy and food abundant and cheap. 41·89 inches of rain fell, being less than the average of 6 years by 13 inches.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. None.

Sanitary works ... One drain, which was commenced last year, was completed.

General health ... Good.

Raipore.

Latitude, 26° 10′.
Longitude, 71° 0′
Average rainfall, 51 inches.
Rainfall in 1879, 63 do.

162. The 16th Regiment Native Infantry occupied this station during the year. The sickness and mortality is given below compared with the mean results of former years. The figures of 1879 contrast unfavorably with the previous year's results. Fevers, small-pox, dysentery and diarrhœa were common.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Mean of 13 Years ending 1878.
Average strength ...	597		
Total admissions ...	703	1,177·6	917·4
Daily sick	24·13	40·4	30·8
Deaths in hospital ...	11	18·4	11·5
Do. out of do. ...	...	...	

Principal Diseases.	A.	D.	Ratio for 1879. A.	D.
Small-pox	5	...	8·3	...
Fevers	409	2	685·0	3·3
Cholera	...	...	...	...
Rheumatism	22	...	36·8	...
Dysentery	25	1	41·8	1·6
Diarrhœa	9	...	15·0	...
Hepatic diseases	6	2	10·0	3·3
Venereal do.	43	...	72·0	...

Drainage ... ... In fair condition.

Water-supply ... ... Indifferent, from wells and tanks.

Epidemics ... ... There was no cholera in the station and regimental lines, but the disease prevailed extensively in the sudder station and in the interior of the district. A severe outbreak of small-pox occurred in the regimental lines soon after the arrival of the regiment at the station. 35 persons were attacked, of whom 6 died. Of those attacked 27 had successful marks of vaccination, four of whom died. The disease disappeared in April. The following is a report of the outbreak by the Medical Officer, written at the request of the Sanitary Commissioner :—

" To

The Station Staff Officer.

" In reply to his letter, No. 46, of the 6th instant, and letter, No. 111, from Sanitary Commissioner, Madras, has the honor to state that out of 35 people who were attacked with small-pox in the cantonment, regimental bazaar and lines, 27 were vaccinated successfully; from those 27 successful 4 died. Of the total number of 35 who were attacked, there were 6 sepoys and 23 camp-followers belonging to the 16th Regiment, who were living in the regimental bazaar. Of the 6 sepoys who were attacked, 1 was unvaccinated and the remaining 5 had been successfully vaccinated; the whole of those 6 men recovered. Out of the 23 camp-followers belonging to the 16th Regiment who were attacked, 20 had been successfully vaccinated and 3 were not vaccinated. Of those 23, 4 died, all of whom were vaccinated successfully. Of the 6 people from the regimental bazaar not belonging to the regiment, 2 died, both of whom were unprotected.

* * * *

(Signed) H. G. HALL, Surgeon,
H. M.'s 16th Regt. N.I.

From Surgeon H. G. HALL, to the Sanitary Commissioner, Madras.

" In reply to your letter No. 83 V, of the 17th ultimo, to the Station Staff Officer, Raipore, requesting that I would furnish you with full particulars about the epidemic of small-pox which visited this regiment last year, I have the honor to inform you that when the regiment arrived here in the beginning of 1879, I made most careful inspections of the lines and huts, and found them in such an extremely

filthy and insanitary condition that I considered it my duty to recommend the Commandant not to allow the troops to occupy them until thoroughly cleaned. This recommendation was immediately carried out. The troops with their families were encamped on the parade ground, and active measures taken to have the lines thoroughly cleaned, fumigated, disinfected, and repaired. Several hundred cart-loads of filth and rags were removed to a distance from the lines and burnt. Previous to the arrival of the 16th Regiment M.N.I. the lines were occupied by the 31st Regiment T.L.I., and they left several cases of small-pox under treatment when they left the station in December 1878. During that month the disease raged in the town and in all the villages of the surrounding districts. In the city of Raipore alone there were 420 cases of small-pox deaths, and in the district during the same time there were 10,270 deaths from the same disease.

The first 4 cases in this regiment occurred on the 4th of February 1879. It is not known whether those cases brought the infection from the city bazaar or caught it in the lines, but it is supposed that they took it from some of the old cases which were left behind by the 31st Regiment T.L.I.

* * * *

Conservancy and sanitary condition. — Sanitary condition of latrines and bazaar satisfactory. Dry-earth system is adopted in the latrines. Night-soil, sewage, &c., from all sources are carried to a distance and buried in trenches specially dug for the purpose.

Prices of food and meteorology. — Climate was unhealthy. The excessive rains caused sickness. 63·6 inches of rain fell during the year, being 12·7 inches above the average. Prices of food were moderate.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. — None.

Sanitary works ... Drainage was improved. Wells and tanks were cleaned out and deepened, and the regimental lines, which were in a most filthy condition, were cleaned out.

General health ... Unsatisfactory. Small-pox, fevers, diarrhœa, dysentery, chest affections and ulcers prevailed to some extent.

Saint Thomas' Mount.

Latitude, 13° 0′.
Longitude, 80° 15′.
Height above sea, 40 feet.
Mean temperature, 81°.
Average rainfall, 57 inches.
Rainfall in 1879, 47 do.

163. The batteries of Artillery and the Native regiments which occupied this station during the year are given below :—

Europeans.	Number of Weeks.	Natives.	Number of Weeks.
O/1st Brigade R.A. and Details ...	52	Detach. 6th Regiment N.I. ...	6
J/6th do. do. ...	52	Detach. 25th do.	39
12-8th do. do. ...	3	Detach. 39th do.	9
K-1 do. do. ...	2		

164. The stational sickness and mortality were as follows, and are compared with the mean results of former years. Venereal diseases were somewhat prevalent among the men of the batteries.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength	306	253				
Total admissions	352	201	1,150·3	794·5	1,297·1	544·1
Daily sick	21·82	5·8	71·3	23·0	64·3	19·8
Deaths in hospital	2	2	6·5	6·6	21·8	7·2
Do. out of do.	1	...	3·2	...		

Principal Diseases.	British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.	Ratio for 1879. British Troops. A.	Ratio for 1879. British Troops. D.	Ratio for 1879. Native Troops. A.	Ratio for 1879. Native Troops. D.
Small-pox	...	...	...	...	...	...	...	...
Fevers	27	...	73	1	88·2	...	288·5	3·9
Cholera	...	...	...	...	...	...	...	...
Rheumatism	7	...	8	...	22·8	...	31·2	...
Dysentery	28	...	5	...	91·3	...	19·7	...
Diarrhœa	7	...	7	...	22·8	...	27·6	...
Hepatic diseases	10	1	...	...	32·6	3·2	...	...
Venereal do.	116	...	28	...	379·0	...	110·6	...

Drainage ... ... Satisfactory.

Water-supply ... ... Good and abundant, from wells.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition of cantonment and bazaar good. Night-soil, &c., are carted to a distance. There are about 11 public latrines. Dry-earth system is used.

Prices of food and meteorology. Climate was favorable and prices of food moderate. 47·9 inches of rain fell, being about the average.

Cantonment rules ... In force. 34 women were on the register, and on an average about 11 were under treatment.

Suggestions for sanitary improvements. None.

Sanitary works ... None.

General health ... ... On the whole satisfactory.

Secunderabad.

Latitude, 17° 22′.
Longitude, 78° 35′.
Height above sea, 1,800 feet.
Mean temperature, 79°.
Average rainfall, 28 inches.
Rainfall in 1879, 36 do.

165. This is a large military cantonment, and the following troops occupied the station during the year 1879 :—

Europeans.	Number of Weeks.
B Brigade R.A. and Details	5
C do. R.A.	50
F-6th do. R.A.	52
N-6th do.	5
14-8th do.	52
H.M.'s 12th Lancers ...	52
2-16th Regiment	52
1-21st do.	52

Natives.	Number of Weeks.
A and I Comp. Sappers and Miners	52
1st Regiment L.C.	52
1st do. N.I.	52
20th do.	46
Right Wing 28th Regiment N.I. ...	35
Left Wing 29th do. ...	7
38th Regiment N.I.	46
40th do.	14
Garrison	52

166. The sickness and mortality of the station were as follows, and they are compared with the mean results of former years. There was nothing unusual in the station affecting the health of the regiments. Fevers, dysentery, diarrhœa, venereal diseases, and rheumatism appear to have been the principal causes of admissions into hospital. Accidents also were common ; 219 men among the European troops and 191 among the Native troops were admitted into hospital during the year for some accident or another. The high rates of sickness and mortality shown by the Native troops may be attributed to the fact that the 20th and 28th Regiments coming from feverish countries as Banda, Nowgong, Mercara and French Rocks, were saturated with malaria, and their constitutions being thus reduced and shattered by previous fever in those stations, made them more susceptible to sickness, and frequent admission into hospital. It is against these regiments that the highest rates of sickness and mortality are recorded. The stations from which they came should therefore be credited with the health inefficiency of these bodies of troops and not Secunderabad.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength ...	2,181	2,704				
Total admissions ...	2,948	2,473	1,351·6	914·5	1,284·3	905·1
Daily sick	149·71	81·14	68·6	30·0	59·2	33·6
Deaths in hospital ...	22	26	10·1	9·6	24·7	11·4
Do. out of do. ...	3	2	1·3	0·7		

Principal Diseases.	British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.	Ratio for 1879. British Troops. A.	Ratio for 1879. British Troops. D.	Ratio for 1879. Native Troops. A.	Ratio for 1879. Native Troops. D.
Small-pox	...	...	1	...	...	...	0·3	...
Fevers	808	3	1,324	10	370·0	1·3	452 6	3·6
Cholera	...	...	...	...	...	...	...	...
Rheumatism... ...	85	1	68	...	34·3	0·4	25·1	...
Dysentery	192	1	73	2	88·0	0·4	26·9	0·7
Diarrhœa	139	...	50	2	63·7	...	18·4	0·7
Hepatic diseases ...	135	8	..	...	61·8	3·6	...	...
Venereal do. ...	532	1	87	...	243·9	0·4	32·1	...

Drainage ... ... Fairly satisfactory.

Water-supply ... ... From wells and tanks, indifferent in quality.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition of cantonment and bazaar fair. Conservancy is carefully attended to. Dry-earth system is fully carried out in regimental latrines, but in the latrines used by the civil population very imperfectly carried out. Night-soil and other solid refuse are removed in conservancy carts and buried in trenches dug for the purpose, while the refuse waters are led through small drains to a large open drain leading into the Hussain Saugor tank.

Prices of food and meteorology.	Season was favorable and prices of food moderate. 36 inches of rain fell against an average of 28 inches.
Cantonment rules	... In force. 315 women were on the register, and about 43 were on an average under treatment. The detective force should be further increased. An increase in the force by one constable in 1878 has led to the detection of a large number of clandestine prostitutes.
Suggestions for sanitary improvements.	A belt of trees should be planted in certain parts of Native regimental lines; wet cultivation in the neighbourhood of the lines should be restricted if not altogether prohibited, and the planting of trees in all directions encouraged.
Sanitary works	... None.
General health	... Satisfactory.

Seetabuldee.

Latitude, 21° 10′.
Longitude, 79° 9′.
Height above sea, 939 feet.
Average rainfall, 40 inches.
Rainfall in 1879, 52 do.

167. Of European troops, detachments of 33rd and 2-13th Regiments for 52 and 4 weeks respectively, and of Native troops detachments of the 5th and 8th Regiments for similar respective periods occupied this station during 1879. The sickness and mortality of the station is given below compared with the average of previous years. The comparison is favorable as regards Native troops, but the detachments of the British regiments show higher ratios of sickness, fevers and venereal diseases being the principal causes of admissions into hospital. No deaths were recorded among the European troops, while the Native troops lost four of their men, by fever (1), debility (1), and lung affections (2).

—	British Troops.		Native Troops.		Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength	52		349					
Total admissions	110		325		2,115·4	931·2	1,586·6	1,449·4
Daily sick	2·58		7·92		49·6	22·7	37·3	39·6
Deaths in hospital	...		4		...	11·5	10·4	7·7
Do. out of do.	...		...		...	...		
Principal Diseases.	A.	D.	A.	D.	Ratio for 1879. British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.
Small-pox	...	...	...	...	...	...	...	...
Fevers	44	...	184	1	846·1	...	534·9	2·8
Cholera	...	...	...	...	...	...	...	...
Rheumatism	2	...	7	...	38·4	...	20·0	...
Dysentery	4	...	6	...	76·9	...	17·1	...
Diarrhœa	...	...	1	...	...	...	2·8	...
Hepatic diseases	2	...	...	...	38·4	...	...	...
Venereal do.	27	...	12	...	519·2	...	34·3	...

Drainage ...	... Of the station in general fair, but that of the lines indifferent owing to lowness of the site.
Water-supply ...	... Obtained from several wells, of fair quality.
Epidemics ...	... None.
Conservancy and sanitary condition.	Sanitary condition of station and bazaars fair. The streets in the bazaar are narrow and irregular, but are kept tolerably clean. Dry-earth system is adopted in the latrines; night-soil and other refuse are carried to a distance and buried.
Prices of food and meteorology.	Season was healthy and prices of food cheaper than in former years. 52 inches of rain fell against an average of 40 inches.
Cantonment rules	... Not in force.
Suggestions for sanitary improvements.	None.
Sanitary works	... None.
General health	... Generally satisfactory.

Shoaygheen.

Latitude, 18° 0′.
Longitude, 96° 45′.
Average rainfall, 157 inches.
Rainfall in 1879, 124 do.

168. This station was occupied by detachments of the 33rd and 41st Regiments Native Infantry during the year, the former for 49 and the latter for 4 weeks. The sickness and mortality are given below compared with former years. The comparison is favorable as regards sickness, but 3 deaths were recorded in 1879, giving a ratio of 23·1 against the average 11·5. Fevers appear to have been the prevailing disease.

—	Native Troops.		Ratio per 1,000 of Strength. 1879.	Mean of 13 Years ending 1878.
Average strength	130			
Total admissions	145		1,115·4	1,986·4
Daily sick	5·99		46·1	69·8
Deaths in hospital	3		23·1	11·5
Do. out of do.	...		...	
Principal Diseases.	A.	D.	Ratio for 1879. A.	D.
Small-pox	...	...	...	...
Fevers	69	1	530·7	7·6
Cholera	...	...	...	...
Rheumatism	7	...	53·0	...
Dysentery	3	...	23·0	...
Diarrhœa	7	...	53·0	...
Hepatic diseases	...	...	...	...
Venereal do.	...	...	...	...

Drainage ...	... Good.
Water-supply ...	... From wells, of good quality.
Epidemics ...	... None.
Conservancy and sanitary condition.	Sanitary condition of station and latrines fair. Dry-earth system is adopted, but inefficiently carried out. Night-soil and other refuse are removed twice daily and buried in the jungle at a distance in ditches.
Prices of food and meteorology.	Season was favorable and food abundant. 124·8 inches of rain fell, being below the average.

Cantonment rules ... Not in force.
Suggestions for sanitary improvements. None.
Sanitary works ... Nothing of importance beyond the usual clearing of jungle in the vicinity of the barracks, repairing of roads, and keeping the water channels and drains clean.
General health ... On the whole favorable.

Sumbulpore.

Latitude, 21° 21′.
Longitude, 83° 45′.
Average rainfall, 66 inches.
Rainfall in 1879, 78 do.

169. The Left Wing 7th Regiment Native Infantry for 45 weeks, and Left Wing 2nd Regiment Native Infantry for 8 weeks, occupied this station during the year. Their sickness and mortality are given below. Fevers, small-pox, and cholera were the chief diseases that affected the men.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878.
Average strength	286		
Total admissions	248	867·1	1,187·1
Daily sick	9·21	32·2	34·5
Deaths in hospital	7	23·5	11·2
Do. out of do.	...	...	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	3	...	10·4	...
Fevers	140	1	489·5	3·4
Cholera	5	3	17·4	10·4
Rheumatism	4	...	13 9	...
Dysentery	7	...	24·4	...
Diarrhœa	...	...	...	...
Hepatic diseases	...	...	...	...
Venereal do.	3	...	10·4	...

Drainage ... ... Satisfactory. More V-shaped drains are required.
Water-supply ... ... Obtained from wells, good and sufficient.
Epidemics ... ... Small-pox and cholera occurred among the men and followers of the 7th Regiment Native Infantry on the march from Vizagapatam. The first case of small-pox occurred on the 25th of January and the last on 2nd of June; total number of cases among the followers was 94 and deaths 14. The following is the Medical Officer's account of the outbreak of cholera:—

"Cholera occurred among the troops on the march on the 8th February 1879. It continued till the 27th February. The total number of cases among men and followers was 31, with a mortality of 20. The troops seem to have marched through an infected locality, as they met with some unburied corpses on the way. On arrival at this station also the epidemic was in full force among the town population. Communication between the cantonment and town was strictly prohibited; all families in which the disease occurred were placed isolated in separate camp."

Conservancy and sanitary condition. Sanitary condition fair. There are no public latrines. Private latrines are kept fairly clean. Dry-earth system is adopted. Sewage, &c., are led by V-shaped drains into open fields. Night-soil and sewage refuse are carted off and buried in trenches.

Prices of food and meteorology. Climate was healthy and food abundant and cheap.
Cantonment rules .. Not in force.
Suggestions for sanitary improvements. More V-shaped drains should be constructed. Public latrines should be erected, and the vicinity of the cantonment should be cleared of all low villages likely to affect the morality of the troops.
Sanitary works .. None.
General health ... Generally good.

Seroncha.

Latitude, 18° 50′.
Longitude, 80° 2′.
Average rainfall, 49·9 inches.
Rainfall in 1879, 58 do.

170. A detachment of the 5th Regiment Native Infantry, 149 strong, garrisoned this station during the year. The sickness and mortality are given below compared with the average of previous years. The year bears favorable comparison with the former period as regards sickness, but the ratio of deaths is higher, 26·8, against an average of 9·9. The causes were dysentery (1), bronchitis (1), cancer rectum (1), and debility (1).

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878.
Average strength	149		
Total admissions	115	771·8	1,381·1
Daily sick	3·18	21·3	45·4
Deaths in hospital	4	26·8	9·9
Do. out of do.	...	...	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	...	...	...	...
Fevers	44	...	295·3	...
Cholera	...	...	...	...
Rheumatism	9	...	67·1	...
Dysentery	6	1	40·0	...
Diarrhœa	4	...	26·8	...
Hepatic diseases	...	...	...	...
Venereal do.	4	...	26·8	...

Drainage ... ... Natural drainage good. The lines are situated on an elevated ridge of land and on porous sandy soil.
Water-supply ... ... Obtained from wells, of good quality.
Epidemics ... ... None.
Conservancy and sanitary condition. Sanitary condition of station and bazaar tolerably good. Conservancy is attended to by an establishment maintained for the purpose. There are no public latrines. Night-soil from regimental latrines and other refuse are carried to a distance and periodically burnt.
Prices of food and meteorology. Season was fair and food abundant. 58 inches of rain fell against an average of 43 inches.
Cantonment rules ... Not in force.
Suggestions for sanitary improvements. None.
Sanitary works ... Rank vegetation and weeds around the lines and in the civil station were removed.
General health ... Satisfactory.

Tonghoo.

Latitude, 18° 47′.
Longitude, 96° 57′.
Height above sea, 300 feet.
Mean temperature, 79°.
Average rainfall, 69 inches.
Rainfall in 1879, 76 do.

The following troops occupied this station during the year :—

Europeans.	Number of Weeks.
3-8th Brigade R.A.	5
7-8th do.	5
8-8th do.	49
9-8th do.	49
Left Wing 44th Regiment ...	52

Natives.	Number of Weeks.
Detach. 33rd Regiment N.I. ...	52
41st Regiment N.I. ...	52

171. The sickness and mortality are given below contrasted with former years. The comparison is favorable as regards the European troops ; but the Native troops show higher ratios of sickness and mortality than the average. The men appear to have suffered much from fevers and bowel-complaints.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength.			
			1879.		Mean of 13 Years ending 1878.	
			British Troops.	Native Troops.	British Troops.	Native Troops.
Average strength	444	756				
Total admissions	408	896	918·9	1,185·2	1,015·7	976·3
Daily sick	15·36	34·07	34·6	45·1	49·4	44·0
Deaths in hospital	4	14	9·0	18·5	} 17·6	15·7
Do. out of do.	...	...	...	...		

Principal Diseases.	A.	D.	A.	D.	Ratio for 1879.			
					British Troops.		Native Troops.	
					A.	D.	A.	D.
Small-pox	...	...	...	...	...	...	...	...
Fevers	53	2	173	1	119·3	4·5	22·8	1·3
Cholera	...	...	...	...	...	...	...	...
Rheumatism	8	...	15	...	18·0	...	19·8	...
Dysentery	24	1	69	1	54·0	2·2	91·2	1·3
Diarrhœa	15	...	253	5	33·7	...	334·6	6·6
Hepatic diseases	34	1	1	...	76·5	2·2	1·3	...
Venereal do.	42	...	2	...	94·5	...	2·6	...

Drainage ... ... Good.

Water-supply ... ... Good, from wells.

Epidemics ... ... None.

Conservancy and sanitary condition. — Station and bazaar in fair sanitary condition. Dry-earth system is adopted in latrines. Night-soil and other refuse are conveyed at night in carts to a distance and buried in trenches.

Prices of food and meteorology. — Season was favorable and food abundant. The price of rice however rose a little at the end of the year. 76 inches of rain fell, being about the average.

Cantonment rules ... In force. 15 women were on the register and only one was under treatment.

Suggestions for sanitary improvements. — None.

Sanitary works ... None.

General health ... Satisfactory on the whole.

Thayetmyo.

Latitude, 20° 18′.
Longitude, 92° 46′.
Height above sea, 240 feet.
Mean temperature, 80°.
Average rainfall, 36 inches.
Rainfall in 1879, 40 do.

172. The following regiments of Europeans and Natives occupied this station during the year :—

Europeans.	Number of Weeks.
K-1st Brigade R.A.	50
4-8th do.	6
10-8th do.	28
11-8th do.	6
16-9th do.	4
43rd Regiment	41
44th do.	52

Natives.	Number of Weeks.
F Company Sappers and Miners	40
Detach. 19th Regiment N.I. ...	38
31st Regiment N.I.	38
32nd do.	52

173. The sickness and mortality are given below compared with the average of former years. The year 1879 was rather an unfortunate one for the regiments at Thayetmyo. Cholera, fevers, and bowel-complaints were the prevailing diseases. A severe outbreak of cholera occurred in the station; it was of a very virulent type. Every regiment, European and Native, suffered from it, and many fell victims to it. There were 33 cases and 21 deaths among the European, and 30 cases with 16 deaths among the Native troops, besides a large number of cases and deaths among the families and camp-followers. Two Medical Officers, Indian Medical Department, also succumbed to the disease.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength.			
			1879.		Mean of 13 Years ending 1878.	
			British Troops.	Native Troops.	British Troops.	Native Troops.
Average strength	1,094	1,442				
Total admissions	1,388	1,160	1,268·7	804·4	1,216·3	622·6
Daily sick	64·54	43·14	58·9	29·9	46·3	25·8
Deaths in hospital	39	26	35·6	18·0	} 20·6	9·1
Do. out of do.	5	5	4·5	3·4		

Principal Diseases.	A.	D.	A.	D.	Ratio for 1879.			
					British Troops.		Native Troops.	
					A.	D.	A.	D.
Small-pox	1	...	1	...	0·9	...	0·6	...
Fevers	204	1	265	...	186·4	...	183·7	...
Cholera	33	21	30	16	30·1	19·1	20·8	11·0
Rheumatism	22	...	58	...	20·1	...	40·2	...
Dysentery	72	2	76	3	65·8	1·8	52·7	2·0
Diarrhœa	167	...	57	...	152·6	...	39·5	...
Hepatic diseases	100	7	4	1	91·4	6·3	2·7	0·6
Venereal do.	100	..	12	...	91·4	6·3	8·3	...

Drainage ... ... Surface drainage good, but to the north of the Artillery barracks several acres of ground become swampy during the rains.

Water-supply ... ... Of fair quality, obtained from wells.

Epidemics ... ... A severe outbreak of cholera occurred among the civil population and European and Native regiments. The following is an extract from the sanitary report in answer to the questions on this subject by the Medical Officer of the 43rd Regiment :—

"Cholera occurred, involving both European and Native community. The first case was that of the Farrier Sergeant of the Royal Artillery on the 22nd June. The disease continued unchecked up to the 4th August, after which no case occurred up to the 22nd September, on which date two Europeans were attacked, and none afterwards. Two deaths of a suspicious nature occurred among the European troops at Allawayo in June; one was afterwards returned as cholera. The Farrier Sergeant of the Royal Artillery was at Allawayo in June, and saw the corpse of one of the men who died."

"The troops at Allawayo were prohibited from visiting the town at the time. A few cases of cholera occurred among the Natives. The two cases above mentioned are the only ones which occurred among the European troops at Allawayo."

Conservancy and sanitary condition. Sanitary condition of latrines, station and bazaars satisfactory. Dry-earth system is adopted in latrines. Contents of latrines and other refuse matters are carted away 1¼ miles from the cantonment and buried in trenches.

Prices of food and meteorology. Season unfavorable to health. Excessive heat in March, April, and May, was followed by great variations of temperature and excessive dampness of the monsoon. 40 inches of rain fell against an average of 36 inches.

Cantonment rules ... In force. 23 women were on the register, and the average under treatment was about 4.

Suggestions for sanitary improvements. The ground near the Royal Artillery barracks, which becomes a swamp during the rains, should be drained, and all jungle cleared as much as possible.

Sanitary works ... Nothing of importance. Some jungles and brushwood were cleared.

General health ... Unsatisfactory.

Trichinopoly.

Latitude, 10° 52′.
Longitude, 78° 46′.
Height above sea, 250 feet.
Mean temperature, 83°.
Average rainfall, 35 inches.
Rainfall in 1879, 26 do.

174. Of European troops a detachment of the 43rd for 11, and L-1st Brigade Royal Artillery for 51 weeks, and of Native troops a detachment of the 6th Regiment for 52 weeks with the Head-quarters and Left Wing of 22nd Regiment Native Infantry for 9 weeks, garrisoned Trichinopoly during the year. The sickness and mortality are given below compared with previous years. The Native troops show a slight excess of sickness over the average. Fevers appear to have been the principal causes of admissions into hospital.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops	Mean of 13 Years ending 1878. Native Troops.
Average strength	164	805				
Total admissions	163	572	993·9	710·5	1,348·7	613·7
Daily sick	9·65	24·95	58·8	30·9	70·7	19·3
Deaths in hospital	1	15	6·1	18·6	20·5	11·0
Do. out of do	...	1	...	1·2		

Principal Diseases.	British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.	Ratio for 1879. British Troops. A.	Ratio for 1879. British Troops. D.	Ratio for 1879. Native Troops. A.	Ratio for 1879. Native Troops. D.
Small-pox	...	...	1	...	...	...	1·2	...
Fevers	37	...	174	2	225.6	...	216·1	2·4
Cholera	...	...	1	1	...	...	1·2	1·2
Rheumatism	2	...	32	...	12·1	...	39·7	...
Dysentery	4	...	32	1	24·3	...	39·7	1·2
Diarrhœa	6	...	37	2	36·5	...	45·9	2·4
Hepatic diseases	3	...	...	...	18·2	...	...	...
Venereal do.	57	...	15	...	34·7	...	18·6	...

Drainage ... ... Satisfactory.

Water-supply ... ... Good, from irrigation channels and wells.

Epidemics ... ... None.

Conservancy and sanitary condition. Conservancy is attended to by the Municipality. Sanitary condition of cantonment was fair. There are numerous public latrines, about 6 to every 1,000 people, and they are kept clean.

Prices of food and meteorology. Season was favorable and food abundant and cheap. 26·3 inches of rain fell, being somewhat below the average.

Cantonment rules ... Were in force in 1879, but the lock hospital was closed in February 1880 by order of Government.

Suggestions for sanitary improvements. None.

Sanitary works ... A drain was constructed, 5 lamp posts were erected, and parapet walls raised to a cistern, besides several repairs to latrines and dust-bins and other minor works.

General health ... Satisfactory.

Trichoor.

Latitude, 10° 32′.
Longitude, 76° 17′.

175. This is a small station and was occupied by a detachment of the 26th Regiment Native Infantry, 172 strong, during the year. The sickness and mortality are given below contrasted with former years.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Mean of 13 Years ending 1878.
Average strength	172		
Total admissions	89	517·4	444·2
Daily sick	3·81	22·1	17·7
Deaths in hospital	...	...	6·2
Do. out of do.	...	...	

Principal Diseases.	A.	D.	Ratio for 1879. A.	D.
Small-pox	...	...	...	...
Fevers	19	...	110·0	...
Cholera	...	...	...	...
Rheumatism	6	...	34·8	...
Dysentery	5	...	29·0	...
Diarrhœa	1	...	5·8	...
Hepatic diseases	...	...	...	...
Venereal do.	1	...	5·8	...

Drainage ... ... Indifferent.

Water-supply ... ... Good, obtained from wells.

Epidemic ... ... None.

Conservancy and sanitary condition. Sanitary condition of town in general indifferent, but that of the regimental latrines satisfactory. There are no public latrines. Night-soil, sewage, rubbish, &c., carted to a distance and buried.

Prices of food and meteorology. Climate was healthy and prices of food moderate.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. That an adequate conservancy establishment for the town be employed, that public latrines be erected, and that the committing of nuisances in the drains and on the sides of the roads and houses be prevented.

Sanitary works ... None.

General health ... Satisfactory on the whole.

Vellore.

Latitude, 21° 56′.
Longitude, 79° 14′.
Average rainfall, 44 inches.
Rainfall in 1879, 31·7 do.

176. A detachment of the 25th Regiment Native Infantry occupied this station during the year. The sickness and mortality were as follows compared with the average of previous years. These figures contrast unfavorably with those of the former period. Fevers, venereal and skin diseases sent large numbers of admissions into hospital.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Mean of 13 Years ending 1878.
Average strength	409		
Total admissions	372	909·5	569·0
Daily sick	15·39	37·6	24·8
Deaths in hospital	7	17·1	21·4
Do. out of do.	1	2·4	

Principal Diseases.	A.	D.	Ratio for 1879. A.	D.
Small-pox	1	...	2·4	...
Fevers	96	...	232·7	...
Cholera	...	...	...	...
Rheumatism	14	...	34·2	...
Dysentery	13	...	31·7	...
Diarrhœa	9	2	22·0	4·8
Hepatic diseases	...	...	...	...
Venereal do.	45	...	110·0	...

Drainage ... ... Fairly good.

Water-supply ... ... Indifferent.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition of regimental latrines defective, but that of the town fair. Conservancy is attended to by the Municipality.

Prices of food and meteorology. Season was favorable to health, and food though abundant, prices still kept high. 31·7 inches of rain fell, average being 44 inches.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. Dry-earth system of conservancy in latrines should be rigidly carried out.

Sanitary works ... None. The cantonment is under the supervision of the Municipality.

General health ... Fair.

Vizagapatam.

Rainfall in 1879, 44 inches.

177. A detachment of the 29th Regiment Native Infantry, with the European Infantry Veteran Company, 53 strong, garrisoned this station during 1879. The sickness and mortality are given below. Fevers and cholera prevailed; of the latter disease there were 9 admissions and 6 deaths. There was a slight prevalence of small-pox also among the Native troops, causing 4 admissions but no deaths.

—	British Troops.	Native Troops.	Ratio per 1,000 of Strength. 1879. British Troops.	1879. Native Troops.	Mean of 13 Years ending 1878. British Troops.	Mean of 13 Years ending 1878. Native Troops.
Average strength	53	469				
Total admissions	23	470	433·9	1,002·1	462·1	705·6
Daily sick	1·27	19·64	23·9	41·8	21·5	41·2
Deaths in hospital	...	9	...	19·1	29·3	1·1
Do. out of do.	2	...	37·7	...		

Principal Diseases.	British Troops. A.	British Troops. D.	Native Troops. A.	Native Troops. D.	Ratio for 1879. British Troops. A.	Ratio for 1879. British Troops. D.	Ratio for 1879. Native Troops. A.	Ratio for 1879. Native Troops. D.
Small-pox	...	...	4	...	...	...	8·5	...
Fevers	4	...	266	2	75·4	...	567·1	4·2
Cholera	...	...	9	6	...	...	19·1	12·8
Rheumatism	...	...	2	...	...	...	4·2	...
Dysentery	1	...	8	...	18·8	...	17·0	...
Diarrhœa	4	...	4	...	75·4	...	8·5	...
Hepatic diseases	...	...	1	...	...	...	2·1	...
Venereal do.	...	...	7	...	...	...	14·9	...

Drainage ... ... Good.

Water-supply ... ... From wells, some of which yield good and others brackish water.

Epidemics ... ... Cholera and small-pox prevailed for the first six months in the year. A detachment of the 29th Regiment arrived at the station on the 4th January with cholera among the men.

Conservancy and sanitary condition. Sanitary condition reported to be good. All rubbish, sewage, &c., are removed to a distance and buried.

Prices of food and meteorology. Climate was unfavorable to health. Prices of food were moderate. 44 inches of rain fell.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. None.

Sanitary works ... None.

General health ... Unsatisfactory. Malarious fevers, hooping cough, and cholera prevailed.

Vizianagrum.

Latitude, 18° 21′.
Longitude, 83° 32′.
Average rainfall, 35 inches.
Rainfall in 1879, 33 do.

178. A detachment of the 17th Regiment Native Infantry was located in the station throughout the year 1879. The sickness and mortality are given below compared with previous years. The figures are above the average. Fevers were common.

—	Native Troops.	Ratio per 1,000 of Strength. 1879.	Mean of 13 Years ending 1878.
Average strength	404		
Total admissions	479	1,185·6	684·4
Daily sick	18·48	45·7	31·3
Deaths in hospital	2	4·9	11·0
Do. out of do.	23	56·9	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	6	...	14·8	...
Fevers	248	1	613·8	2·4
Cholera	...	...	...	...
Rheumatism	27	...	66·8	...
Dysentery	18	...	44·5	...
Diarrhœa	9	...	22·2	...
Hepatic diseases	...	...	...	...
Venereal do.	22	...	54·4	...

Drainage ... ... Satisfactory.

Water-supply ... ... Good in quality and sufficient in quantity; obtained from wells.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition of regimental latrines and station was good. Dry-earth system is adopted. There are no public latrines. Sewage, rubbish, &c., are carted away to a distance.

Prices of food and meteorology. Climate was favorable to health and provisions cheap and abundant.

Cantonment rules ... Not in force.

Suggestions for sanitary improvements. Public latrines should be erected.

Sanitary works ... None.

General health ... Satisfactory.

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Wellington.

Latitude, 10° 25′.
Longitude, 77° 5′.
Height above sea, 6,000 feet.
Average rainfall, 44 inches.
Rainfall in 1879, 45 do.

179. This is a hill station and a convalescent depôt for European troops. The sickness and mortality of the station for the year is given in the following table compared with the average of former years. There would appear to have been less sickness at the station during 1879 than in the previous years.

—	H. M.'s Convalescent Depôt.	Ratio per 1,000 of Strength. 1879.	Ratio per 1,000 of Strength. Mean of 13 Years ending 1878.
Average strength	473		
Total admissions	456	964·0	1,341·6
Daily sick	23·21	49·1	76·7
Deaths in hospital	4	8·4	16·5
Do. out of do.	2	4·2	

Principal Diseases.	A.	D.	Ratio for 1879. A.	Ratio for 1879. D.
Small-pox	...	...	..	...
Fevers	135	1	285·4	2·1
Cholera	...	...	...	...
Rheumatism	4	...	8·4	...
Dysentery	23	...	48·6	...
Diarrhœa	2	...	4·2	...
Hepatic diseases	13	...	27·4	...
Venereal do.	100	...	211·4	...

Drainage ... ... Good.

Water-supply ... ... Good, from springs.

Epidemics ... ... None.

Conservancy and sanitary condition. Sanitary condition good. Night-soil, rubbish, &c., removed by carts.

Prices of food and meteorology. Climate was conducive to health and food abundant. 45 inches of rain fell against an average of 43·9.

Cantonment rules ... In force. 52 women were on the register and about 15 were under treatment.

Suggestions for sanitary improvements. None.

Sanitary works ... None.

General health ... Good.

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180. Besides the military stations noted above, from which alone sanitary reports were received, detachments of Native regiments served also at other stations not military. The sickness and mortality of these regiments and the stations in which they served are given on the next page.

—	Trevandrum.		Rajahmundry.		Nicobars.	Bassein.	Prome.	Addateegala.	Chodaveram.	Kothapally.
	Detachment 37th Regiment N.I.	Detachment 26th Regiment N.I.	Detachment 29th Regiment N.I.	Detachment 10th Regiment N.I.	Detachment 23rd Regiment N.I.	Detachment 22nd Regiment N.I.	Detachment 24th Regiment N.I.	Detachment 29th Regiment N.I.	Detachment 29th Regiment N.I.	Detachment 29th Regiment N.I.
Ratio per 1,000 of Strength.	344·8	92·3	116·0	452·6	8,200·0	485·4	2,206·6	396·1	1,797·7	442·5
	11·2	8·0	21·8	22·8	128·0	19·5	44·5	96·6	332·0	123·7
	...	...	...	4·1	22·2	9·7	7·4	...	33·7	...
	...	...	...	4·1	...	...	...	...	...	...
Number of weeks resident.	40	12	6	14	52	38	18	5	8	6
Strength	87	65	224	243	45	103	271	154	89	235
Total admissions ...	30	6	26	110	369	50	598	61	160	104
Daily sick	0·98	0·52	4·90	5·56	5·76	2·01	39·17	14·88	29·55	29·07
Died in hospital	...	...	...	1	1	1	2	...	3	...
Do. out of do.	...	...	...	1	...	...	...	...	...	...

	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.	A.	D.
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fevers	5	...	2	...	5	...	93	...	344	...	4	...	426	1	39	...	130	2	75	...	57·4	...	30·8	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...
Rheumatism ...	...	...	...	...	2	...	...	...	1	...	...	...	20	...	5	...	...	...	...	...	...	...	...	...
Dysentery ...	1	...	...	...	1	...	4	...	...	...	5	...	17	...	3	...	9	...	3	...	11·5	...	...	...
Diarrhœa ...	2	...	...	...	2	...	...	...	4	...	6	...	69	...	...	...	1	...	2	...	23·0	...	...	...
Hepatic diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Venereal do. ...	3	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	34·5	...	...	...

SECTION V.

CIVIL.

HEALTH OF PRISONERS IN JAILS AND ABSTRACT OF SANITARY NOTES OF MUNICIPALITIES AND LOCAL FUND CIRCLES.

HEALTH IN JAILS.

Increase and decrease of Jail population.

181. The total number of prisoners remaining in jail at the end of 1878 was 19,621; during 1879,—29,122 were received in the Madras jails, making a total of 48,743; of these 36,300 were discharged, transferred, or died, leaving 12,443 on the 31st December 1879, showing a decrease in number of prisoners as compared with last year of 7,178.

The 36,300 prisoners were thus disposed of:—

Liberated	28,902
Transferred to other jails	5,966
Transported beyond seas	476
Escaped	18
Died in hospital	860
Do. out of do.	6
Executed	72
Total ...	36,300

Strength, sickness, and mortality.

182. The medical returns of the year show an average strength of 15,372. The numbers admitted into hospital were 13,690 and the total deaths was 858, a percentage of death which compares favorably with 1878.

Comparison with former years.

183. The following table shows the ratio of admissions and deaths contrasted with the ratios for a series of years:—

Years.	Ratio of Admissions.	Ratio of Deaths.
1861-62	1,502·6	93·0
1862-63	1,319·0	89·4
1863-64	1,373·6	107·6
1864-65	1,491·1	101·5
1865	1,290·6	126·3
1866	1,249·7	124·5
1867	1,012·4	53·9
1868	869·1	33·8
1869	804·7	41·8
1870	735·2	26·5
1871	779·9	17·9
1872	681·1	22·2
1873	599·8	28·3
1874	714·1	26·6
1875	752·6	38·7
1876	703·6	42·4
1877	971·3	175·4
1878	944·4	125·4
1879	890·5	55·8

Remarks on principal diseases.

184. Epidemic cholera was absent from the jails with the exception of the Penitentiary, Madras (1), Rajahmundry (11), and Vizagapatam 58 admissions; the total number admitted was 70, of which 22 died.

Small-pox.

185. Small-pox appeared in isolated cases in seven jails only. Total number of cases was only 14, of which 2 died. Madura jail, on which last year's report animadverted, seems to have been quite free from this scourge during 1879.

Fevers.

186. Fevers as usual form by far the largest number of admissions into hospital; but in this year's return there are happily no cases of typhoid fever. Of the 3,784 cases of fever admitted 3,304 were of the intermittent type, and of these only 32 cases proved fatal. The total mortality from fevers of all sorts is only 41.

Dysentery and Diarrhœa.

187. The total number treated under these diseases is 2,111, of which 317 died. This compares favorably with the admissions and deaths of last year, viz., 3,500, of which 925 proved fatal.

Dropsies.

188. Only 240 admissions and 92 fatal cases occurred under dropsies as compared with 573 and 281 during 1878.

189. In the report for 1878 (page 135) there is given "a special" report on an outbreak of ulcerative stomatitis in the district jail, Coimbatore, by Dr. Ogg, the medical officer of the station. No such outbreak occurred during the year under review, but in Bellary jail an almost identical disease seems to have made its appearance. Surgeon-Major Hackett thus describes it:

"The peculiar ulcer of the mouth, so many cases of which came under notice, is an interesting affection, and one which is not described in any works at my disposal. I had altogether about 130 cases during the year. The patient complains of a sore mouth; on examination a small round but often irregular ulcer is seen just behind the last molar tooth, sometimes below, often above. The sore has a whitish appearance, and a small quantity of pus is discharged from it. It is not accompanied by much swelling of the face, but mastication causes great pain. It often extends considerably, implicating the inside of the cheek; and I had one bad case which ran its course rapidly, destroyed the cheek in 24 hours (notwithstanding free incisions, the use of strong nitric acid, &c.), and killed the patient by blood poisoning. These peculiar ulcers, which always begin behind the last molars, are usually confined to one side only, though sometimes both sides of the mouth are implicated. Almost every patient who suffered from this affection had a distinct scorbutic taint; in many cases very well marked symptoms of scurvy were evident. Bloated or puffy looking countenance, loose, soft, spongy and flabby gums, which exude pus and blood on the slightest pressure; sometimes the purple discoloration of the gums was the only evidence of scorbutic taint. Ulcers on the lower extremities near the ankle, perfectly round, bleeding on the least pressure, were present in numerous cases. The patients were feeble, tongue and conjunctivæ pale, the breath had a most offensive and peculiar odour. Treatment adopted was change of diet, administration of fresh limes, potatoes, &c.; mouth kept clean by syringing with Condy's fluid, alum or chlorate of potash gargle; administration of potash salts; sometimes a solution of nitrate of silver was applied to the ulcer. Nearly all the cases got well; local remedies, though useful, are not alone to be considered of much benefit. The average number of days each patient was under treatment was 18. I placed the scrapings of some of these ulcers under the microscope, but could only discover blood and pus cells with scales of epithelium apparently."

190. The Bellary jail seems also to have been unfortunate in having a considerable number of cases of gangrene, 35 cases proving fatal out of 39 admissions. This, with the ulcerative stomatitis, and high death-rate, suggest some local insanitary condition on which the report under review throws no light. I shall take an early opportunity of paying Bellary a visit.

191. The following tables give at a glance the admissions, daily sick, deaths, and prevalent diseases in the jails during the past year. It will be seen that 1897 was a far more favorable year than 1878.

192. The effects of the famine are gradually disappearing.

Table showing the principal causes of mortality in Jails for a series of years.

Years.	Death-ratio per Mille.				
	Cholera.	Dysentery.	Diarrhœa.	Dropsies.	Anæmia.
1861-62	26·3	8·5	14·6	...	...
1862-63	23·0	7·2	14·5	...	...
1863-64	15·6	16·5	17·5	...	...
1864-65	21·3	18·2	30·9	...	...
1865	30·0	12·8	22·7	...	...
1866	25·5	14·3	34·6	...	...
1867	0·8	8·8	10·5	5·3	12·1
1868	0·2	5·5	7·3	1·9	5·7
1869	4·3	6·6	7·3	3·3	2·4
1870	1·5	3·6	4·6	1·6	1·5
1871	0·7	2·9	2·3	0·8	0·3
1872	1·3	3 9	4·5	0·9	1·2
1873	0·1	5·9	6·0	2·5	0·4
1874	0·0	5·3	5·3	1·9	0·9
1875	4·1	6·4	7·7	3·5	0·9
1876	10·0	7·7	5·3	2·2	0·9
1877	25·7	32·1	50·1	5·8	2·0
1878	5·1	15·0	28·2	13·1	1·2
1879	1·4	10·3	10·2	5·9	0 9

Statement showing the Mean Admissions, Daily Sick, and Deaths of seven years contrasted with the results of 1877, 1878, *and* 1879, *separately.*

Districts.	Mean of 7 years ending 1876.			1877.			1878.			1879.		
	Admissions.	Daily Sick.	Died.	Admissions.	Daily Sick.	Died.	Admissions.	Daily Sick.	Died.	Admissions.	Daily Sick.	Died.
Bellary	701·2	26·0	20·2	976·8	51·0	317·8	1,360·7	107·3	279·1	1,403·0	127·3	107·9
Berhampore	664·7	28·9	47·0	545·1	24·1	79·4	667·6	27·0	166·1	520·3	29·6	76·9
Cannanore Central ...	658·6	32·2	36·0	962·7	63·5	110·5	713·0	28·7	64·2	747·2	43·1	29·8
Calicut	779·8	23·0	50·3	705·3	38·3	219·9	925·3	48·0	145·5	790·7	42·7	51·1
Chingleput	1,508·7	54·7	11·6	1,617·5	63·0	140·0	1,195·9	59·2	20·1	902·2	40·8	11·3
Chittoor	1,304·3	44·0	30·4	2,268·2	75·3	536·5	2,131·5	99·9	187·9	4,231·8	124·2	54·5
Coimbatore Central ...	412·1	19·0	28·3	601·4	38·0	117·2	809·0	46·7	116·5	743·4	34·3	45·5
Do. District ...	1,293·4	70·0	65·8	2,099·8	94·6	657·2	3,030·2	197·2	384·4	2,668·4	151·3	137·7
Cuddalore	778·8	25·1	18·6	745·3	17·9	76·2	434·1	16·9	75·2	291·1	15·7	23·7
Cuddapah	1,431·5	38·5	41·4	855·6	28·7	119·7	2,583·0	93·4	156·3	2,081·9	80·9	112·0
Guindy	1,362·3	28·5	...	656·7	20·1	44·7	602·7	16·7	13·6	320·5	6·5	...
Guntúr	972·7	35·0	9·0	245·5	11·2	7·5	125·4	5·7	20·9	345·3	11·5	5·1
Her Majesty's Jail, Madras	1,259·2	24·0	...	2,352·9	78·8	...	1,952·3	86·1	47·6	1,055·5	36·6	...
Kurnool	1,102·0	33·9	54·4	1,355·6	38·9	307·0	1,714·2	96·6	345·3	2,002·1	122·7	147·9
Madura	418·3	18·3	45·7	1,334·2	47·7	300·0	1,151·2	82·6	248·0	646·0	48·8	66·1
Mangalore	1,161·2	43·6	48·3	1,531·9	59·4	63·8	2,375·5	88·8	84·5	1,944·7	63·1	27·6
Masulipatam	1,000·0	38·4	...	442·7	19·2	7·6	201·4	10·7	7·1	274·1	13·4	22·2
Nellore	683·6	22·3	20·4	1,265·4	44·3	195·5	1,151·3	33·0	64·0	1,047·1	34·5	49·1
Ootacamund European.	500·0	32·3	...	1,375·0	37·9	41·6	1,291·6	24·5	...	1,000·0	27·6	...
Do. Native ...	527·9	18·6	24·8	1,101·8	50·2	57·3	1,113·3	53·4	113·3	765·1	33·1	15·1
Palamcottah	477·1	17·2	38·5	458·7	11·0	26·7	209·8	10·9	26·7	152·4	8·9	32·1
Penitentiary, Madras ..	827·1	31·1	13·7	656·0	23·7	27·2	609·3	18·6	19·1	730·2	16·9	12·9
Rajahmundry Central.	794·4	41·2	15·0	1,067·5	69·0	23·1	862·5	65·4	21·7	1,574·3	93·8	60·9
Do. District.	1,095·7	45·3	31·9	1,125·6	55·7	26·1	1,087·5	58·3	32·8	1,173·3	62·1	24·2
Russelkonda	1,178·9	35·6	21·0	1,404·4	27·3	29·4	1,283·1	34·1	42·1	1,246·5	32·6	13·7
Salem	392·7	15·8	18·0	1,756·7	40·0	168·5	950·2	70·0	213·8	672·9	43·6	103·6
Tanjore	596·1	37·7	76·9	586·2	28·2	148·8	389·3	17·1	77·7	583·3	21·6	37·0
Tellicherry	739·7	30·4	27·3	651·7	25·9	71·3	596·7	18·3	88·7	650·0	17·5	50·0
Tranquebar	792·3	31·6	61·5	696·2	21·4	56·9	712·4	23·9	58·8	651·9	22·5	...
Trichinopoly Central.	360·0	19·1	38·3	273·2	11·1	53·7	256·7	10·5	42·5	355·9	17·5	32·7
Do. District.	709·9	31·4	45·8	418·1	21·5	115·1	441·1	24·1	136·0	1,115·4	40·6	120·2
Vellore Central ...	626·0	21·1	13·8	546·1	18·6	22·0	367·3	14·9	17·3	467·9	19·7	14·3
Vizagapatam ...	561·6	24·4	65·0	789·2	19·7	174·8	765·3	26·1	133·9	925·5	40·1	226·3
Pálghat Fort ...	...	...	...	1,553·0	60·1	165·4	894·4	41·8	120·1	682·3	35·1	137·1

MUNICIPALITIES.

193. The "Towns Improvement Act" was in force in the same number of towns as in 1878.

194. The aggregate population of the 49 Municipalities amounted to 1,620,480. The total number of children born during the year was 45,079, or 3,946 in excess of the registrations in 1878. Of these 23,646 were males and 21,433 females, the proportion in the sexes born being 110·3 males to 100 females. The birth-rate to population was 27·8 per mille, the proportion varying in different towns from 47·6 in Tuticorin to 4·4 in Gooty. The registration shows an increase in births of 2·5 per mille over the results of 1878, and this increase is much larger in some towns than in others. Comparing the birth-rate of 1879 with the average of the three years ending 1876 the figures stand thus: 27·8 for 1879, against an average of 28·6, showing that the births taken as a whole are gradually regaining the normal rate before the famine. In some towns, however, situated in districts especially affected by the famine the birth-rates still keep low, but it is satisfactory to note that even here a gradual improvement is observable. Although the Towns Improvement Act enforces compulsory registry of every birth and death in Municipal towns, it is to be regretted that in some Municipalities registration was found to be defective. In all such instances the attention of the authorities was called to the subject.

195. *Deaths.*—The total number of persons who died during the year amounted to 48,305, being 14,123 less than the preceding year. Of the deaths 24,921 were males, 23,384 females, or in the proportion of 106·5 males to 100 females. The ratio per mille was 29·8, against an average of three years ending 1876 of 31·3. In 1878 the death-rate was at 38·5 per 1,000 of population.

196. The year 1879 was, on the whole, a healthy one. It was characterized by an almost entire absence of epidemic diseases in the towns in the southern and western districts. In the north, however, as in Vizagapatam, Godávari, &c., cholera prevailed somewhat, and the total deaths registered from this cause in all the towns in the Presidency amounted to 672 against 3,794 in 1878. Of this number 529 were registered in Vizagapatam, Godávari, and Kistna. In 17 only out of the 49 towns were there any cholera deaths recorded. Small-pox also shows a less number of deaths than in 1878—2,091 against 2,908—and the disease was more generally distributed than cholera. From fevers the deaths registered numbered 13,182 and from bowel-complaints 6,785, against 14,435 from fevers and 13,195 from bowel-complaints in 1878.

197. Although the past year was a favorable one, so far as immunity from epidemic diseases was concerned, the year was remarkable for a general prevalence of ulcers of an indolent nature and diseases of debility (more especially in the districts and towns affected by famine), consequent upon poor living. The disappearance of the famine, however, did not restore the poorer classes of the people to their normal health; having suffered a prolonged course of innutrition, they became susceptible to ulcers and other skin diseases. Happily a good harvest and a sensible fall in the prices of the staple articles of food have caused these unfavorable conditions almost entirely to pass away, and the physical condition of the laboring poor is now fairly good.

198. In the table below is given the principal causes of death in 1879 contrasted with 1878.

Diseases.	Deaths.			
	1878.	Ratio per Mille.	1879.	Ratio per Mille.
Cholera	3,794	2·3	672	0·4
Small-pox	2,908	1·7	2,091	1·2
Fevers	14,435	8·9	13,182	8·1
Bowel-complaints	13,195	8·1	6,785	4·1
Injuries	1,011	0·6	715	0·4
Other causes	27,085	16·7	24,860	15·3

199. *Sanitary Works.*—Sanitary reports were received from all the Municipalities, except Madras, and the form of report was the same as that submitted for 1878. From the information given in these reports it would appear that no new works of any importance were executed or in progress during the year under review. In a few Municipalities some drains were built, a few cinerators and dust-bins were erected, some latrines constructed, and prickly-pear bushes cleared. Besides these works, repairs, wherever and whenever necessary, were made to existing drains, latrines, dust-bins, &c., and the general conservancy of the towns was attended to. The conservancy arrangements in most of the towns are all that could be desired, while in some they are not altogether satisfactory; but a general improvement in this respect is observable throughout, and the Municipal Commissioners everywhere seem to pay some attention to sanitation, with a view to improving the condition of the towns entrusted to their supervision.

200. At the end of this portion of the report a table is given which shows the estimated income and expenditure for sanitary purposes, &c. in each Municipality.

201. From this table it will be seen that the net income of the 48 Municipalities, excluding Madras, having a population of 1,222,928, amounted to Rupees 14,06,670, being slightly above a rupee a head. This is greater than the receipts for 1878-79 by Rupees 2,13,184. The income of every Municipality, excepting seven, viz., Adoni, Madura, Ongole, Ootacamund, Chidambaram, Tanjore, and Anakapalle, seems to have increased more or less. But with this increased income no corresponding increase has been made in the sanitary allotment; on the contrary a decrease is observable in almost all the Municipalities. The total amount set apart for purely sanitary purposes, not including vaccination, registration, or expenditure on hospitals and dispensaries, amounted to Rupees 3,62,543, which is less than the allotment of 1878-79 by Rupees 34,817. The percentage of the sanitary grant to income was 25·7, against 33·3 in 1878-79. The percentage, though less than that of the preceding year, may be accepted as a fair allotment of the revenues for sanitary purposes. The rates per cent. vary in the several towns in a greater or less degree: thus in fourteen towns they range from 10 to 20, in twenty-four from 20 to 30, in seven from 30 to 40, in one the rate was between 40 and 50, and in two others between 50 and 60 per cent. Excepting two towns, Calicut and Pálghat, the allotment made by each town is within the minimum rate in some and above it in others; and the conditions of Calicut and Pálghat are such that no large outlay is necessary for conservancy purposes.

202. The following is an abstract of the sanitary reports received from each Municipality:—

Adoni.

Population, 22,723.

Drainage.

203. The main streets are provided with masonry drains, which carry off the surface waters. There are numerous narrow and tortuous lanes; a few of these have side cuttings. There are no house drains. Cess-pits exist in the houses, which are cleaned under Municipal direction by the owners, and this appears to be imperfectly done. The contents when they are cleaned are removed to a distance and buried.

Water-supply.

204. For drinking purposes is obtained from five wells scattered about the town within easy reach of the people, and three springs at the foot of the rock near the town. The water is not good nor sufficient in quantity. For bathing purposes and washing of cattle forty-nine other wells are set apart.

Conservancy and sanitary condition.

205. The conservancy of the town was attended to by an establishment maintained for the purpose at a cost of Rupees 5,300. The sweepings, &c. are collected by Municipal carts and deposited in a place set apart for the purpose and sold by auction. Seventy-five dust-bins exist, which are cleaned by a certain class of men, who for their labor take the contents themselves, which they use as manure, and have the tax on their buffaloes remitted. These men do not appear to do their work properly. There are ten public latrines, which are cleaned twice daily; they are freely resorted to. Some are mere enclosed spaces, and after rain become a nuisance and are not much used. The night-soil from these is carried in closed carts to a distance and buried in trenches in a piece of land rented by the Municipality for the purpose. There are also 400 private latrines, which are cleaned by the Municipality. The sanitary condition of the town was not altogether satisfactory.

Sanitary works.

206. Eighty-five yards of masonry side drains and a dam to a nullah were constructed, two public latrines were repaired, and some other minor works executed.

General health.

207. Unsatisfactory. Fevers, bowel-complaints, and ulcers were very prevalent. This latter complaint was unusually prevalent in 1879 in the famine districts, being the result of long-continued poor living. Famine-stricken objects were still plentiful in the town and the deaths amongst them very numerous. Of fevers there were 7,260 admissions into hospital, and of skin diseases, including sloughing ulcers, 3,661. There was an entire absence of cholera. The total number of deaths registered was 1,807; the principal causes of death were fevers (382) and bowel-complaints (682). The large mortality was due to the presence of a relief-house and accumulation of famine wanderers in the town. The births registered numbered 240, and 550 persons were vaccinated against 586 in 1878, on 519 of whom the operation proved successful.

Anantapur.

Population, 4,918.

Drainage.

208. Tolerably good. Many of the streets have masonry drains and others side cuttings through which the rain water flows into adjacent fields. There are no house drains. Cess-pits exist in houses, which are cleaned twice a year.

Water-supply.

209. Drinking water is obtained from a tank and four wells, of good quality.

Conservancy and sanitary condition.

210. A conservancy establishment is maintained to keep the town clean. The sweepings are collected in dust-bins, of which there are about seventy-four, and carted daily to a distance from the town, where they are deposited in a place set apart for the purpose and subsequently sold by auction as manure. There are nine public latrines, which are cleaned out twice daily; and the night-soil mixed with sand is deposited in pits out of the town. On the whole the sanitary condition of Anantapur during 1879 may be said to have been satisfactory.

Sanitary works.

211. No new works were executed. Some side drains were cleaned out, a few parapet walls to wells were erected, and latrines repaired.

General health.

212. Satisfactory. There was an entire absence of epidemic diseases. One hundred and twenty-two deaths were recorded during the year from all causes. Fevers contributed 66. The births numbered 71, and 83 vaccine operations were performed. A Municipal Vaccinator was entertained only at the latter end of the year; hence the small number of operations: 79 of these were successful.

Anakapalle.

Population, 13,044.

Drainage.

213. Unsatisfactory. A few side channels exist in the streets to carry off storm waters. Drainage of houses very defective.

Water-supply.

214. Obtained from a tank and wells, of good quality and abundant.

215. Conservancy is pretty well attended to. There are eight public latrines, five of which are made up of mud walls, and three are simple enclosed spaces surrounded with bushes. The night-soil is removed to a distance from the town by scavengers and buried. All sweepings and rubbish were used to fill up an old channel in the town. This is a new Municipality, and the effects of Municipal laws will, it is hoped, be more sensibly seen in the future by an improved sanitary condition of the town.

Conservancy and sanitary condition.

Sanitary works.

216. Nothing of importance. A slab drain was built and two others are to be built.

General health.

217. Unsatisfactory. Cholera, small-pox, and fevers prevailed to some extent. Four hundred and ninety deaths were registered. Cholera contributed 96, small-pox 43, and fevers 204. The total births registered numbered 195. Three hundred and ninety-eight persons were vaccinated, and 355 of the operations were successful.

Bellary.

Population, 51,766.

Drainage.

218. Unsatisfactory. Open drains exist, and these are not on proper levels and consequently get choked up with dirt, &c. Many cess-pits exist, some of which have not been opened for four years.

Water-supply.

219. Obtained from tanks and wells; reported to be good and sufficient in quantity.

Conservancy and sanitary condition.

220. A regular establishment is maintained to keep the town clean. There are 289 dust-bins, and twenty-two public and numerous private latrines, which are cleaned twice a day. Night-soil is carted out of the town and buried. The sweepings, &c. are taken to a distance from the town and burnt in cinerators, and the ashes used in the latrines. The sanitary condition of the town was fair.

Sanitary works.

221. Two new cinerators were built and several latrines repaired.

General health.

222. Although there was an entire absence of epidemic disease, the general health of the people cannot be said to have been satisfactory. Fevers, syphilitic diseases, eye affections, general debility, gangrene, ulcers and other skin diseases, the result of long-continued poor living, were very common. 2,299 deaths were registered, fevers being the cause of death in 748 instances. Famine relief was continued until nearly the end of the year from Mansion House funds. 869 children were born during the year. The number vaccinated was 1,257,—1,020 proving successful.

Berhampore.

Population, 21,670.

Drainage.

223. Many of the streets have V- shaped drains; being badly laid they are not kept clean and sewage stagnates in places where the levels are faulty. Drainage of houses is indifferent, most of them having cess-pits.

Water-supply.

224. Obtained from two tanks fed by rain water and surface drainage from adjoining fields.

Conservancy and sanitary condition.

225. The sanitary condition of the town was fair, and conservancy pretty well attended to. All sweepings and rubbish are taken out of the town and burnt and night-soil buried. There are eight public latrines. Three hundred private latrines exist in the town

which are seldom cleaned. More public latrines are required and better arrangements should be made for removing the filthy accumulations from the backyards of houses.

Sanitary works.

226. One hundred and twenty yards of V-shaped cut-stone drains were constructed; two new roads were made, and the existing roads and drains were repaired and kept clean.

General health.

227. On the whole the general health was fair, but small-pox prevailed to a large and cholera to a slight extent. 632 deaths and 362 births were registered during the year; of the deaths 3 occurred from cholera, 182 from small-pox, and 79 from fevers. 468 vaccine operations were performed, of which 388 were successful.

Bimlipatam.

Population, 8,744.

Drainage.

228. Large masonry drains exist in the principal streets, which lead to the sea. No regular system of house drainage exists. The refuse waters from houses flow into the street drains.

Water-supply.

229. Is obtained from tanks and numerous wells in the town, and is of fair quality.

Conservancy and sanitary condition.

230. The conservancy of the town is well attended to, and the sanitary condition was fair. Night-soil, sweepings, and other rubbish are removed and deposited out of the town, where part of them is sold to the townspeople as manure.

Sanitary works.

231. Nothing of importance; wells were cleaned out and rank vegetation removed.

General health.

232. Satisfactory. No epidemic diseases prevailed. 232 deaths and 160 births were registered during the year: 91 deaths are set against fevers and 43 against bowel-complaints; 1 death occurred from small-pox. 409 persons were vaccinated, and on 402 of them successful marks appeared.

Calicut.

Population, 47,962.

Drainage.

233. Side drains exist in all the streets, which empty themselves into two main drains running along the whole width of the town leading into the sea. House drainage is practically unknown in Calicut, except in the Moplah town and bazaars, and from these parts the refuse waters from the houses flow into the street side drains. In other parts of the town each house has a compound, and the refuse waters are absorbed.

Water-supply.

234. Is obtained from private wells and a public tank, of good quality and sufficient.

Conservancy and sanitary condition.

235. The conservancy of the town was well attended to by an establishment maintained for the purpose. There are only four public latrines, but the people do not take to them kindly. Night-soil, sweepings, and other refuse are removed in hand-carts and buried outside the town. The sanitary condition of the town was on the whole fair, but that of the Moplah part requires attention.

Sanitary works.

236. None.

General health.

237. The general health on the whole was satisfactory. There were no epidemics except small-pox, but this disease is endemic in the town and never absent. 1,003 deaths and 724 births were registered during the year. The principal causes of death were small-pox (120), fevers (89), and bowel-complaints (83). 1,357 persons underwent vaccination, and 1,085 successfully.

Cannanore.

Population, 31,358.

Drainage.

238. Fair. Some of the streets have masonry side drains, and in others there are side cuttings. The drainage runs to the sea.

Water-supply.

239. Is obtained entirely from private wells, and is of good quality and sufficient to meet the wants of the people.

Conservancy and sanitary condition.

240. The town is kept fairly clean by the conservancy establishment. There are eleven pucka public latrines and twenty-two wooden ones. These latter are placed on the beach; they look like sentry-boxes, and are much resorted to by the people. There are numerous dust-bins about the town. Night-soil, sweepings, &c., &c. are removed to a distance from the town, there buried, and afterwards sold. The sanitary condition of the town was fair.

Sanitary works.

241. Nothing of importance. Several drains and latrines were repaired and kept clean.

General health.

242. Satisfactory. No epidemic diseases prevailed. 383 deaths, fevers contributing 74, and 490 births were registered during the year. The vaccine operations numbered 1,136, of which 966 were successful.

Chicacole.

Population, 15,587.

Drainage.

243. V-shaped side drains exist in most streets to carry off surface waters; some of them are badly laid.

Water-supply.

244. Drinking water is obtained principally from rivers. The water is of fair quality, but it contains a great deal of clay in solution, and is usually filtered in the native fashion before use. A few wells also are used.

Conservancy and sanitary condition.

245. Conservancy of the town is well looked after. There are five public latrines, of which only one is freely resorted to; the others not so. All night-soil, sweeping, rubbish, &c. are carted outside the town and sold as manure. The sanitary condition of the town was on the whole satisfactory.

Sanitary works.

246. No new works were executed. A drain was repaired at a cost of Rupees 7, and some prickly-pear bushes removed at an expense of Rupees 12-8-0.

General health.

247. Satisfactory. There were no epidemics to speak of. A few cases of small-pox and cholera occurred. 334 deaths and 228 births were registered during the year. The principal causes of deaths were fevers (128), bowel-complaints (58), cholera (4), and small-pox (3). 292 persons were vaccinated, on 225 of whom the operations were successful.

Cocanada.

Population, 17,839.

Drainage.

248. No drains exist properly so called. The ground is sandy, and consequently little surface drainage is necessary. The water sinks into the ground. The drainage from houses is sometimes led into cess-pools, but oftener into the side streets, where it is either dried up or sinks into the soil.

Water-supply.

249. Is obtained from the Godavari canal, and brought into the town in covered channels and stored in four tanks. The water is reported as being good.

Conservancy and sanitary condition.

250. Conservancy of the town is fairly attended to by the Municipality. There are thirteen public latrines, two of which are built of wood in the tidal river, which carries off their contents; the others are mere mud-wall enclosures. The streets are swept twice daily and the refuse carted to waste grounds. Some of the sweepings were sold during the year to the people to fill up hollows on low ground. The night-soil from public and private latrines is removed and buried in the swamp. The sanitary condition is fair and gradually improving, though it is still defective in some parts.

Sanitary works.

251. Several roads, culverts, drains, and latrines were repaired and kept clean. The drinking-water channels were cleaned and kept free of pollution, and other minor works executed.

General health.

252. Satisfactory. 82 deaths from cholera were registered. The disease prevailed severely in the Godavari District during 1879, and in the Cocanada Taluk (Zemindary), in which the town is situated, there were recorded 356 deaths from this disease. The total deaths registered numbered 696 and births 386. Bowel-complaints caused 90 and fevers 43 deaths. 694 vaccine operations were performed, 535 successfully.

Cochin.

Population, 13,840.

Drainage.

253. In the main streets deep rectangular drains exist. These are not kept very clean. In some of them nuisances are committed, and the people use them as latrines. In the narrower streets and lanes there are side cuttings. All the drains communicate with each other, and run into the sea through the Calvetty canal or river. In some parts there are no drains, and the refuse waters, &c. sink into the sandy soil. In the crowded parts of the town house drainage appears to be fair; but in detached huts, each standing in the midst of a cocoanut plantation, the refuse waters and surface drainage either sink into the soil or escape into the tanks reserved for drinking purposes.

Water-supply.

254. The better classes of the population get their water from a distance of sixteen miles from the river, always of good quality. The poor classes, and who form the majority, depend for their supply of drinking-water on tanks and wells of doubtful quality, in dangerous proximity to cess-pools and unprotected from pollution. To remedy the evil the Municipality propose to sink new wells in parts of the town where they will be free and protected from contamination.

Conservancy and sanitary condition.

255. Conservancy is attended to by an establishment of 4 overseers, 4 carts, and 28 sweepers. The sweepers were not properly looked after, supervision being lax. The main streets were kept fairly clean, but the many narrow and tortuous lanes were very dirty. There are eleven dust-bins in the town, which are cleaned twice daily. The sweepings, rubbish, &c. are either thrown into the sea, or used to fill up holes, &c., or sold. Rupees 33 were realized by such sales during the year. There are four pucka latrines, which are built on a bad plan; they are badly ventilated, and no dry earth is used. Besides there are also twenty-four thatched wooden latrines; fifteen of these are situated on tidal waters, and nine are portable sentry-box latrines, and are placed on open spaces on the beach. Some have hand buckets placed under them, and underneath others trenches are dug, which, after the latrine is removed to another spot, are filled with earth. All night-soil is thrown into the sea.

Sanitary works.

256. Nothing of importance. A new drain and four box privies were constructed, and several latrines and box privies were repaired.

General health.

257. Not altogether satisfactory. Fevers, cholera, and small-pox prevailed. The deaths registered numbered 693 and births 398. The numbers vaccinated were 950. Of the deaths fevers caused 111, cholera 29, small-pox 161, and bowel-complaints 34. Of the vaccine operations 652 were successful.

Coimbatore.

Population, 35,310.

Drainage.

258. Only surface drainage. The drains are simple cuts on the sides of the streets, in some instances lined with loose rubble work. Sewage of the houses about the bazaars in the denser parts of the town runs into these side drains, there stagnates, and slowly sinks into the soil. The drainage requires improvement, and the natural fall of the ground is good for efficient drainage.

Water-supply.

259. Is obtained principally from the River Noyel. With the exception of a few wells, the water from most of the wells is not good. In the dry season, when the tanks are empty, there is scarcity of water.

Conservancy and sanitary condition.

260. Conservancy is well attended to, and the town is kept fairly clean by an establishment of scavengers and carts. There are thirty-five latrines; two of these are on the trench system. The sweepings, &c. are burnt in cinerators, of which there are twenty. The ashes are mixed with night-soil, and used in the public gardens and sold as manure. The sanitary condition of the town was good during the year, but the backyards of private houses are not kept so clean as they should be.

Sanitary works.

261. Rupees 1,218 were spent during the year on sanitary works other than conservancy for drainage water supply. No details are given except that two open mud wall latrines were erected at a cost of Rs. 112.

General health.

262. Satisfactory. There were no epidemics. Fevers prevailed principally. Of 475 deaths registered, fevers caused 167. The births registered numbered 730, and 734 vaccine operations were performed, 696 successfully.

Chidambaram.

Population, 15,519.

Drainage.

263. Surface drainage only, by means of side channels. There is no attempt at any regular system of drainage. The drainage of private houses, in most instances, is led into the gardens attached to each house, and in others is allowed to flow into the streets into cess-pits.

Water-supply.

264. Is derived from wells and tanks connected with irrigation channels, and is good in quality.

Conservancy and sanitary condition.

265. Conservancy is attended to by 24 sweepers and 13 carts. Sweepings, &c. are collected daily and stored till the cultivating season, when they are sold as manure. There are only four temporary latrines. These are not sufficient, and the people commit nuisances in unoccupied corners and in the gardens attached to houses.

Sanitary works.

266. Nothing of importance. A few side channels were cut in some of the main streets.

General health.

267. Was on the whole fair. There were no epidemics. 401 deaths were registered, of which fevers caused the largest number (182). The births registered numbered 409, and 487 persons underwent vaccination, the operation proving successful in 455 instances.

Combakonam.

Population, 44,444.

Drainage.

268. No drains of any kind exist in this town. The ground is flat and soil very porous.

Water-supply.

269. Good and abundant, from two rivers and numerous large tanks and wells.

Conservancy and sanitary condition.

270. Conservancy was attended to by an establishment maintained for the purpose. The sweepings, rubbish, other refuse, &c. were partly collected and sold as manure and partly removed by a contractor at three pies per cart. There are eighteen public latrines and six night-soil carts are employed to remove the contents. The latrines are not sufficient for the population, many of whom resort to, and foul, vacant grounds in the outskirts of the town.

Sanitary works.

271. Two tunnels were extended, a culvert was built, eight dust-bins constructed, a street was widened, and several roads were repaired.

General health.

272. The general health was fair. There was an almost entire absence of epidemic diseases. A few cases of small-pox occurred, causing 6 deaths. 1,522 deaths were registered, fevers (269) and bowel-complaints (248) contributing the largest numbers. 1,551 children were born during the year, and 5,301 persons were vaccinated, the operation proving successful on 3,769 of them.

The large number of vaccinations was due to the energy of the Vice-President, Mr. Govindoo Row, who exerted himself specially to bring up arrears of vaccination after the visit of the Sanitary Commissioner in January.

Conjeeveram.

Population, 37,327.

Drainage.

273. There are no drains properly so called in this town. Side channels are dug to carry off surface waters. These appear to be sufficient. Sewage from private houses flows into the backyards, where it sinks into the soil.

Water-supply.

274. Is obtained from tanks and wells. The water is reported as not good. Some of the tanks are connected with temples and subject to all kind of defilement, and others receive the town drainage. The wells too are not free of pollution from percolation.

Conservancy and sanitary condition.

275. An establishment of scavengers and carts attended to the conservancy of the town. The streets were kept fairly clean. Dust-bins and latrines are cleaned daily. There are seven public latrines. These are mere mud-wall enclosures with trenches dug inside. The sweepings, &c. are collected and stored outside the town and sold as manure. The contents of the latrines are buried in pits. On the whole the sanitary condition of the town was fair.

Sanitary works.

276. Nothing of importance. Some prickly-pear bushes were removed, dust-bins repaired, and the Lalakal supply channel was cleaned and deepened.

277. On the whole it may be said to have been tolerably fair. Fevers and bowel-complaints were the prevailing diseases. Some small-pox also occurred. The total deaths registered amounted to 831 and the births to 976. The number vaccinated was 911. Of the deaths, fevers caused 314, bowel-complaints 245, and small-pox 29; of the vaccinations 754 proved successful.

General health.

Cuddapah.

Population, 16,275.

278. No regular system of drainage exists. Some of the principal streets have side cuttings discharging into the irrigation channel. Drainage from private houses flows into the streets.

Drainage.

279. Is obtained principally from wells, of good quality. Some people use also the river-water.

Water-supply.

280. An establishment was maintained to attend to the conservancy, and the town was kept tolerably clean. There are numerous dust-bins (75) in the town. The sweepings were carted outside Municipal limits, deposited in pits dug for the purpose, and subsequently sold, realizing Rupees 166. There are forty-two latrines, twenty-four of which are pucka built, and the others mere mud-wall enclosures. The sanitary condition was fair.

Conservancy and sanitary condition.

281. Nothing of importance. Three pucka latrines commenced in 1878 were completed during the year, some wells were repaired and cleaned and watchmen employed to prevent their pollution.

Sanitary works.

282. Comparatively satisfactory. No epidemic diseases prevailed. 921 deaths were registered, of which fevers contributed the largest number (562). The births registered numbered 442, and the vaccine operations 270, only 159 proving successful.

General health.

The vaccination arrangements in this town are not good, and the people of the town and district are generally hostile to vaccination.

Coonoor.

Population, 3,058.

283. This town is built on steep slopes, and the drainage is natural by open channels. Sometimes water lodges in the hollow parts of these channels and stagnates. Some houses are provided with small saucer-shaped drains, but the majority have only channels cut in the soil, which require great attention to keep them clean.

Drainage.

284. Is obtained from springs rising in the hills about three miles from Coonoor, and conveyed into the town in open channels. The water is good, but houses are springing up along the course of the channels and it is liable to pollution. There are other springs used chiefly for drinking purposes, however, which yield good and pure water.

Water-supply.

285. The town is kept clean by a conservancy establishment. Sweepings and night-soil mixed with the ashes of burnt rubbish, are carried outside the town to a central depôt, and sold to contractors who remove them to distant coffee estates to be used as manure. There are fourteen latrines in the town, four of them being pucka built. The sanitary condition on the whole was good. The Municipality pay great attention to it.

Conservancy and sanitary condition.

286. No work of any special kind was executed. Some roads were widened, latrines repaired, and brushwood removed.

Sanitary works.

287. Was satisfactory. There was an entire absence of epidemic disease. The total deaths registered were 120, fevers (27) and bowel-complaints (47) contributing the largest numbers. 77 births were registered, and 689 persons vaccinated, 616 of them successfully.

General health.

288. The town was inspected by the Sanitary Commissioner in June, and at a conference with the Municipal Commissioners projects for improving the water-supply and drainage were discussed. These works, however, can only be carried out by borrowing money.

Carur.

Population, 9,378.

289. No regular system of drains exists at present. Some street drains have been made and others are about to be constructed.

Drainage.

290. Is obtained from the river and wells in the town, and is of good quality.

Water-supply.

291. The principal streets are swept twice daily, and the town in general once a day. The sweepings, &c. are removed and stored outside the town to the west of the old rampart, and there stored for future sale. There are four pucka latrines and three built of mud. The night-soil is buried in pits and eventually utilized in the Municipal garden. The sanitary condition of the town was fair.

Conservancy and sanitary condition.

292. A cinerator was built, a new well was sunk, four Municipal carts were constructed, five bullocks were purchased, some repairs were made, and other minor works executed.

Sanitary works.

293. The health of the town is reported as having been unsatisfactory. No epidemic diseases prevailed, but malarious fevers and ulcers of a peculiarly indolent nature were common. 183 deaths were registered, and fever was the cause in 66 instances. The births registered numbered 186, and 382 vaccine operations were performed, 355 proving successful.

General health.

Cuddalore.

Population, 40,290.

294. Indifferent. Masonry drains exist only in some parts of the old town, but these are badly laid, and sewage stagnates in places where the levels are faulty. In other parts of the town side channels are cut to carry off storm waters. The drainage from private houses flows into the streets.

Drainage.

295. Is obtained principally from the Guddalum river and wells, of fair quality.

Water-supply.

296. The town was kept fairly clean by an establishment maintained for the purpose, but some of the latrines were not properly conserved, and some outlying villages were often found in a dirty state. There are sixteen latrines in different parts of the town, and 247 dust-bins. The sweepings, night-soil, &c. are collected and buried in pits outside the town and eventually sold. The large area of the Municipality renders it difficult to attend to all points of sanitation.

Conservancy and sanitary condition.

297. Nothing of importance. Some side channels were cut; such of the drains, roads, and latrines that were out of order were repaired, and a few wells were cleaned.

Sanitary works.

298. Was somewhat indifferent. Some cholera and small-pox prevailed, and fevers were common. The total deaths registered amounted to 770; cholera caused 11, small-pox 34, fevers 349, and bowel-complaints 62. 694 children were born, and 1,028 persons were vaccinated, on 878 of whom successful marks appeared.

General health.

Dindigul.

Population, 12,865.

299. Natural drainage is good, the ground being undulating. The drainage of houses also is reported as being good.

Drainage.

300. Obtained from tanks and wells. The water from some is good and from others indifferent. The supply is scanty, and the town on the whole is not well supplied with water.

Water-supply.

301. The streets are kept fairly clean by a conservancy establishment. Ten latrines exist, one of which only is pucka built, the others being simple enclosed spaces. The sweepings, night-soil, &c. are collected and deposited in a depôt outside the town. The sanitary condition was fair.

Conservancy and sanitary condition.

302. Several wells were deepened, two new latrines were constructed and two are in progress, and two dust-bins were erected and two are under construction.

Sanitary works.

303. Was fair. No epidemic diseases of any note prevailed, but 5 deaths from small-pox are recorded. The total deaths registered were 241, small-pox contributing 5, fevers 107, and bowel-complaints 40. The births numbered 339, and the vaccine operations 778,—718 proving successful.

General health.

Ellore.

Population, 25,487.

304. Masonry drains exist in the principal streets, and the irrigation channel also passing through the town serves as a drain to carry off rain-water; but when the canal is closed once a year for repairs, water stagnates in this channel and causes great nuisance. The drainage of private houses is indifferent.

Drainage.

305. Is obtained from tanks fed by the Godavari and Kistna canals. Water is also obtained from several public and private wells. The water is good. The wells sometimes fail in the hot weather. The people prefer well water to either tank or canal.

Water-supply.

306. The conservancy of the town is looked after by an establishment of 4 inspectors, 27 scavengers, 13 sweepers, and 5 carts, but the sanitary condition of the town is reported as being unsatisfactory. The cleanliness of the streets and thoroughfares is greatly neglected, and a great nuisance is always created along the channel running in the midst of the town by the people defecating and throwing all kinds of rubbish in it. Nineteen latrines exist in the town; of these four are pucka built, six are mud-wall enclosures, and nine are leaf latrines. The sweepings, rubbish, night-soil, &c. are carted outside the town and sold by auction.

Conservancy and sanitary condition.

307. Four new latrines were constructed, four drains and several sluices were built, a channel was dug, and several latrines and dust-bins were repaired.

Sanitary works.

308. The general health of the people was tolerably good, although cholera prevailed to some extent, causing 175 deaths. The total deaths registered were 800, fevers being the cause in 93 instances and bowel-complaints in 51. The registered births were 674, and the vaccine operations 775—646 of which were successful.

General health.

Erode.

Population, 10,201.

309. No regular drains exist; surface drainage only is attempted. The drainage flows towards a jungle stream. Drainage from private houses in some instances flows into the streets, and in others into the backyards where it dries up rapidly.

Drainage.

310. Water is obtained from various sources, from (1) irrigation channel flowing through the town, (2) from the bed of a jungle stream, (3) from the Cauvery river two miles distant, and (4) from several wells. The supply is good and sufficient.

Water-supply.

311. Twelve sweepers and six carts are employed to keep the town clean, and the conservancy was fairly good. Dust-bins are provided, and ten latrines exist which are cleaned by eight toties and two carts. Street sweepings are used to fill up pits and hollow places, and are afterwards covered over with earth. Night-soil is buried.

Conservancy and sanitary condition.

312. A well was deepened, several new streets were opened, pits and hollow places in the town were filled in, two mud latrines were constructed and another is in progress, and avenue trees were planted along the sides of the road leading from the railway station.

Sanitary works.

313. Was satisfactory. No epidemics prevailed. The deaths registered numbered 165 and births 154. The vaccinations were 321. Of the deaths, fevers caused the largest number (57). The successful vaccinations numbered 313.

General health.

Gooty.

Population, 6,730.

314. Wide open drains exist in the principal streets. These sometimes prove inefficient: when heavy rains fall they get choked with sand and mud.

Drainage.

315. Is obtained from eight wells and one tank, and is said to be of good quality and sufficient in quantity.

Water-supply.

316. The town is cleaned twice daily, and three carts are employed for the purpose. The sweepings, &c. are carried to a distance and sold. There are eight latrines and sixty-five dust-bins in the town. One cart is employed to remove the night-soil, which is taken one mile out of the town and buried in pits. The latrines are falling into ruin. The sanitary condition of the town was fair.

Conservancy and sanitary condition.

317. None.

Sanitary works.

318. On the whole the general health may be said to have been good, but ulcers were very common. Ulcers appear to have been common in almost all the towns that were affected by famine, being the result of impoverished blood through long-continued poor living. 210 persons died during the year, many of them being famine wanderers treated in the hospital, and only 30 children were born. The births are absurdly low, due partly to defective registration. Fevers caused 38 deaths and bowel-complaints 62. 32 vaccine operations only were performed; of these 26 were successful.

General health.

319. Gooty was formerly a place of importance, but it has been decaying for years past, and has ceased to be a trading centre. Many of the inhabitants have left, and ruined houses abound. The district authorities have come to the conclusion that Municipal taxation is inapplicable to the present circumstances of the people, and the Municipality will cease to exist from the end of the official year 1879-80. Provision for conservancy will be made by the Local Fund Board. The Sanitary Commissioner inspected the town in September and concurred in the decision of the district authorities.

Kurnool.

Population, 25,579.

Drainage. 320. Most of the streets have drains, some rectangular and others V-shaped. These drains are flushed twice a day. Drainage from private houses flows into them. In some houses cess-pits exist.

Water-supply. 321. Is obtained from the river, brought into the town by a masonry conduit. The supply is available only for a portion of the year.

Conservancy and sanitary condition. 322. The town is kept clean by an establishment costing Rupees 6,000. The conservancy arrangements were good. There are thirty-four latrines in the town, which are kept very clean. The sweepings, night-soil, &c. are removed twice daily, and taken to the rubbish depôt where they are sold by auction. In 1879 the sales realized Rupees 1,500.

Sanitary works. 323. Nothing of importance. Some drains were repaired.

General health. 324. The general health on the whole was fair; there were no epidemics, but fevers prevailed to some extent. 1,181 deaths were registered; fevers caused 613 and bowel-complaints 138 deaths. The births numbered 535, and the vaccine operations 339, of which 298 were successful.

325. This town had not entirely recovered from the influences of the famine.

Madura.

Population, 51,987.

Drainage. 326. Both of streets and houses indifferent. The main drains were constructed in a pre-Municipal era, and are of a rectangular shape and badly laid, without regard to levels.

Water-supply. 327. The town water-supply is obtained from tanks and wells, and from the River Vigay. Most of the wells are sewage-polluted, and the tanks are used for washing and bathing purposes also. The water-supply is of a very indifferent quality. No improvement made since last report.

Conservancy and sanitary condition. 328. A conservancy staff is employed to keep the town clean. An improvement has taken place in this respect. The sweepings, &c. are removed daily to three depôts, where they are partly sold and partly burned in cinerators. Four permanent and twelve temporary latrines exist. The night-soil is mixed with ashes and stored in depôts.

Sanitary works. 329. Some dust-bins and three cinerators were constructed and several repairs executed.

General health. 330. Was somewhat indifferent. Small-pox, fevers, and bowel-complaints were very prevalent. The deaths registered numbered 1,899; fevers caused 580, bowel-complaints 243, small-pox 73, and cholera 2. The births were 2,134, and the vaccine operations 1,846, proving successful in 1,607 instances.

Mannargudi.

Population, 17,703.

Drainage. 331. Beyond ditches and channels for the discharge of rain water, there is no systematic drainage. The town is flat and surrounded by wet cultivation. The sewage from private houses flows into the backyards.

Water-supply. 332. Is obtained from the river, twelve miles distant, by a channel, and stored in the town in numerous tanks. The water is good and sufficient, if care be taken to conserve the tanks properly.

Conservancy and sanitary condition. 333. Five carts with sweepers are employed to clean the town. The conservancy is indifferent. There are no public latrines, and people resort for purposes of nature to gardens and the outskirts of the town. The sweepings, &c. are used to fill in pits and some are also sold. The sanitary condition of the town was on the whole good. Arrangements are being made for erecting public latrines.

Sanitary works. 334. Nothing of any note. The water-supply channel, several streets and lanes were repaired.

General health. 335. Was on the whole good. No epidemics prevailed. 341 deaths and 540 births were registered. Fevers caused the largest number of deaths (45). The number vaccinated was 1,212, of which 1,086 were successful.

Mangalore.

Population, 29,712.

Drainage. 336. No masonry drains exist. The town is built on a slope, and side cuttings are made to carry off the rain water. These cuttings lead to the backwater. The drainage from private houses is allowed to flow into the gardens, where it is used for the irrigation of trees.

Water-supply. 337. Is derived from wells, and the supply is good and sufficient.

Conservancy and sanitary condition. 338. The conservancy of the town is looked after by a staff of inspectors, overseers, scavengers, sweepers, and six carts. The sweepings, &c. are carried out of the town one mile distant and sold. There are forty dust-bins, and a cart is employed to collect their contents. There are only four public latrines, and a large number of private privies; all these are well attended to. The sweepings, night-soil, &c. are removed to a distance and sold. The private latrines also are cleaned under the supervision of the Municipality, who employ 33 toties for the purpose. The sanitary condition was fair.

Sanitary works. 339. None.

General health. 340. Was satisfactory. The year was marked by an entire absence of epidemic diseases. 655 deaths were recorded. The principal causes of death were fevers (179) and bowel-complaints (92). The births were 492, and the vaccinations 1,085, of which 969 were successfully operated on.

Masulipatam.

Population, 36,188.

Drainage. 341. Indifferent. There are no drains properly so called. The town is low and the soil sandy, preventing effective drainage. Side cuttings, which silt up with every shower of rain, are made to carry off the surface drainage. The drainage of private houses flows into the streets.

342. Is obtained from the canal, brought by a channel and distributed in different parts of the town by masonry conduits. The water is of good quality.

Water-supply.

343. Twenty-four sweepers with 12 carts keep the town clean. There are eighteen latrines, and a toty is attached to each latrine. The sanitary condition of the town was fair.

Conservancy and sanitary condition.

344. Four new latrines were constructed at a cost of Rupees 1,145. Rupees 302 were spent in removing prickly-pear bushes, and the water channel and conduits were cleaned and deepened.

Sanitary works.

345. It is reported to have been on the whole satisfactory, although some cholera and small-pox prevailed. 532 persons died and 619 children were born. Of the persons that died, 42 fell victims to cholera, small-pox carried off 43, and fevers 97. The number vaccinated was 717, and of these 693 were successfully performed.

General health.

Mayavaram.

Population, 21,165.

346. No drains exist beyond road-side ditches for carrying off rain water. The sewage from private houses flows into the gardens at the back.

Drainage.

347. Is obtained from several tanks fed by the Cauvery river, and also from private wells. The water is good and sufficient.

Water-supply.

348. The streets were kept fairly clean by a staff of conservancy servants. There are only a few temporary latrines, and even these are not much used by the people. They chiefly resort to private privies and gardens, and the accumulations are utilized as manure. The sweepings, &c. are burnt in cinerators. The sanitary condition of the town was tolerably good.

Conservancy and sanitary condition.

349. Eight temporary latrines were constructed, a sluice was built, channels were excavated in the bed of the river to supply drinking water in the hot weather, and several repairs were executed.

Sanitary works.

350. Was on the whole satisfactory. 2 deaths from cholera and 32 from small-pox occurred. The total deaths amounted to 662, of which fevers caused 111 and bowel-complaints 125. The births numbered 694, and the vaccine operations 509, of which 501 were successful.

General health.

Vaccine operations have not been so well carried out in this as in other towns of the Tanjore District.

Negapatam.

Population, 48,525.

351. There is no system of drainage in the town. Numerous cess-pits exist, into which the drainage of the houses flows. These cess-pits have no flooring, and the sewage sinks into the soil.

Drainage.

352. Is obtained from wells and tanks fed periodically by the river through irrigation channels. Some are reserved for drinking purposes only, while others are used for washing cloths, bathing, and drinking also.

Water-supply.

353. The town was kept clean by a staff of Municipal servants. Twenty-five carts are employed for conservancy purposes, of which twelve are engaged in removing night-soil from the twenty public latrines that are in the town. Dust-bins are provided for the reception of dry rubbish. The sweepings, &c. from a section of the town are

Conservancy and sanitary condition.

deposited in a place called Hathaway's Park, and from another section to a depôt to the north. Night-soil is buried in trenches from four to six feet deep. The sanitary condition was fair.

Sanitary works.

354. None.

355. Cholera prevailed somewhat, and small-pox to a small extent. Fevers and bowel-complaints also caused many deaths. Nearly one-half the mortality occurred from these causes alone, viz., cholera 54, small-pox 7, fevers 249, and bowel-complaints 199. The total deaths were 1,037 and births 959. The vaccinations numbered 1,518, the operation proving successful in 1,380 instances.

General health.

Ootacamund.

Population, 9,982.

356. A scheme for a regular system of street and house drainage of the bazaar is under consideration, and will, it is hoped, be completed in a few years.

Drainage.

357. Two large reservoirs supply good water and in abundance. Some wells and the lake water also are used.

Water-supply.

358. Conservancy is attended to by a staff of Municipal servants. Inoffensive rubbish is made use of for reclaiming the swamp. Night-soil and offensive matters are carried daily in iron carts to a spot two miles from the town and buried in pits. Many places near the public roads are resorted to for the purposes of nature. The condition of the bazaar and market is much the same as in former years, and many sanitary defects exist in the town.*

Conservancy and sanitary condition.

359. Nothing of importance. Some latrines were completed and put to use, the reclamation of the swamp was carried out, an unsightly piece of ground was levelled and planted with ornamental trees, and some repairs were executed.

Sanitary works.

360. Was good. No epidemic of any kind prevailed. The total deaths registered amounted to 258 and births 332. The numbers vaccinated were 719, of which 660 were successful. Three deaths from typhoid fever were recorded, and the Medical Officer's account of them is given below.

General health.

* * * *

"The three cases of typhoid fever occurred last August in a small cottage called Cattissa, three very small rooms of which were occupied by a European family consisting of father, mother, and seven children, in very indigent circumstances. The children were insufficiently fed and clothed, the rooms were dirty and close. Cooking and all domestic arrangements seemed to be carried on in them. The premises round the house were covered with undergrowth and were generally in a dirty neglected state, and I was informed some of the godowns were very dirty and foul also. The rest of the house was occupied by two ladies. I may add that, on my recommendation, the premises were put in a more satisfactory state and cleaned up, and are not now in so insanitary a state as they were. In addition to the cases of typhoid, an infant in this family suffered at the same time from mild continued fever for some days, which was probably due to the same causes."

Some cases of diphtheria occurred in a school in March and April, and one of the Medical Officers of the station contracted the disease.

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* NOTE.—As this is going through the Press the Sanitary Commissioner is writing a report on Ootacamund, and in it the insanitary condition of the station will be dwelt on more in detail.

Ongole.

Population, 7,392

361. Indifferent. There is no regular system of drainage. A few drains exist in the streets in the bazaar, but these are not looked after properly.

Drainage.

362. From tanks and wells, sufficient in quantity. The wells supply good water, but the water from some of the tanks is bad.

Water-supply.

363. The town is swept daily and kept tolerably clean. The sweepings, &c. are carted outside the town and sold by auction. There are no public latrines. The five that were in existence were blown down by a cyclone and none erected instead.

Conservancy and sanitary condition.

Sanitary works. 364. None.

365. Excepting fevers, which prevailed to some extent, the general health is represented as having been good. No epidemics to speak of prevailed. Some few sporadic cases of small-pox occurred. 246 deaths occurred, of which 77 were caused by fevers. The births registered were 245, and 187 persons were vaccinated, on 95 of whom the operation proved successful.

General health.

366. This is a very insignificant town, and is not adapted for Municipal taxation.

Palghat.

Population, 30,752.

367. Natural drainage of the country is good. Any system of artificial drainage unnecessary. The principal houses have masonry side drains leading to the streets.

Drainage.

368. Good and plentiful, obtained from numerous wells, public and private, from tanks and the river.

Water-supply.

369. The town is kept tolerably clean by 22 scavengers and 11 carts. All the sweepings, refuse, &c. are collected daily and stored in convenient places, and sold as manure, but they do not realize much. There are no public latrines. All the houses have garden lands around them, in which fruit trees and vegetables are grown largely, and the town is surrounded by extensive paddy-fields, to which the people resort for purposes of nature. Some houses have domestic privies with cess-pits; the contents of these are used as manure in the gardens. A few latrines ought however to be provided, and provision has been made for the erection of three latrines as an experimental measure.

Conservancy and sanitary condition.

370. The drains in the town were cleaned and repaired, the tanks and wells used for drinking purposes were cleared out, and two new wells were sunk, all obnoxious vegetation was removed and other nuisances abated.

Sanitary works.

371. With the exception of fevers, which prevailed to some extent, the health of the people may be said to have been on the whole satisfactory. The total deaths numbered 1,068; fevers carried off 408 persons and bowel-complaints 84; 9 deaths were also recorded from small-pox. 1,102 births were registered, and 1,213 persons vaccinated, the operation proving successful on 1,062 of them.

General health.

Palamcottah.

Population, 17,945.

372. There are no drains properly so called. The surface drainage is conducted by two main drains; one carries off the drainage of the high ground on the east and empties itself into a tank, and the other runs from east to west and empties itself into a channel.

Drainage.

373. Is obtained from a river channel principally, and when this dries up, which occurs for three or four months in the year, the wells and tanks, some of which yield good water, are resorted to.

Water-supply.

374. Eight carts are employed for the removal of rubbish and night-soil; six of these sweep the streets daily and keep the town clean. The sweepings, &c. are collected and burned in a cinerator, and the ashes are mixed with the night-soil from the latrines and stored in pits to be subsequently sold as manure. There are six latrines; three of these are pucka built and the others are of mud walls with trenches inside. More public latrines are required, and better arrangements made for the removal of filthy accumulations from the backyards of houses.

Conservancy and sanitary condition.

375. The drains were cleaned, a bathing ghat was constructed, two new pucka latrines were erected, the parapet walls of certain wells were rebuilt, and other repairs executed.

Sanitary works.

376. Was on the whole satisfactory, and the sanitary condition of the town was fair. Some small-pox, however, occurred, causing 31 deaths. The total deaths were 550 and births 653. Fevers caused 73 deaths and bowel-complaints 99. The vaccine operations numbered 524, of which 415 were successful.

General health.

Salem.

Population, 50,012.

377. The drainage of the town is defective. Many drains exist, but they empty themselves into the river above the parts where the people collect their drinking water. To prevent contamination of the water, catch-pits were put up at the mouths of the drains, the contents of which are removed by the hand in barrels and thrown beyond Municipal limits. In rainy weather, however, the catch-pits overflow and the drainage of the town passes into the river. The drainage of most of the private houses flows into the street drains; in some houses, where there are no drains, the sewage is left to be dried by the sun or absorbed by the soil.

Drainage.

378. Is obtained from wells and reservoirs, of fair quality. The river water also is largely used, but it cannot be said that this water is good. The water at its source may be pure, but as the river passes through the town it is subjected to every sort of defilement. Every day large numbers of the population may be seen in the bed of the stream washing their dirty clothes and bathing, and in the upper part of the stream defiling the banks with human ordure.

Water-supply.

379. The conservancy of the town was satisfactory. The town was kept fairly clean by a sufficient staff of Municipal servants. The street sweepings, rubbish, &c. are collected and stored in depôts, and eventually sold to cultivators. Night-soil also is collected, and thrown in pits and covered over with earth beyond Municipal limits, and when fit for use is sold as manure. There are forty-two latrines in the town, which are very much appreciated and resorted to by the people. The arrangements, however, for removing the liquid refuse from the catch-pits at the mouths of the drains are not very satisfactory.

Conservancy and sanitary condition.

380. Nothing of importance. A covered drain was built and several latrines repaired.

Sanitary works.

381. Reported as having been unsatisfactory. The people suffered much from fevers, debility, and ulcers, the two latter being the result of the late scarcity and poor living. 1,123 deaths were registered during the year; of these fevers alone caused 447 and bowel-complaints 150. The births registered numbered 973, and the vaccine operations 1,032, of which 942 were successful.

General health.

Srirangam.

Population, 18,655.

382. None. The streets have side channels cut for surface drainage. In every house there is a cess-pit, privy, and a well alongside of it. The soil is sandy and porous.

Drainage.

383. Is obtained principally from the Cauvery and Coleroon. There are numerous wells in the town, but they are not used for drinking purposes.

Water-supply.

384. A staff of 24 scavengers and sweepers and 15 carts is maintained to attend to the conservancy of the town and the removal of night-soil. The streets are swept and kept fairly clean. The sweepings, rubbish, &c. are removed to fields, and night-soil is buried in pits. The sanitary condition and the arrangements for the conservancy of the backyards are very unsatisfactory. 702 cess-pits in houses have been closed and Municipal scavengers employed to remove the excreta from them.

Conservancy and sanitary condition.

385. Nothing of importance.

Sanitary works.

386. Was satisfactory. No epidemic diseases prevailed. A death from sporadic cholera and two deaths from small-pox occurred. The total registered deaths numbered 453; of these 133 were caused by fevers and 67 by bowel-complaints. There were 323 births registered, and 730 persons were vaccinated, on 643 of whom the operation proved successful.

General health.

Tanjore.

Population, 52,175.

387. Fair. Regularly-constructed drains exist on both sides of the streets and lanes to carry off the sewage and rain water to the north part of the fort ditch, and from here three channels have been constructed through the fort glacis to discharge the sewage on cultivated ground. The drainage of private houses flows into the side drains in the street.

Drainage.

388. Is obtained principally from the Sivagunga tank and several other tanks and wells, said to be of good quality. Nothing has been done as yet, beyond the preparation of plans and estimates, with reference to the water-supply project noted last year.

Water-supply.

389. The streets were kept fairly clean by 75 sweepers, and 61 carts; the night-soil from the latrines is removed by 33 scavengers in 9 carts. The streets are swept daily, and the sweepings, night-soil, &c. collected and sold as manure. There are altogether forty-five latrines, forty of which are in working order, and numerous dust-bins abound. The sanitary condition was good, and the conservancy arrangements were improved.

Conservancy and sanitary condition.

390. A sewage tub was constructed in the fish-market, a temporary latrine was erected, and several drains, wells, and tanks, &c. were repaired, deepened and cleaned, and prickly-pear bushes and wild croton plants removed.

Sanitary works.

391. Was satisfactory. With the exception of a few cases of small-pox the town was entirely free from epidemic diseases. 1,136 deaths were recorded and the births numbered 1,391. Of the deaths 229 were caused by fevers, 321 by bowel-complaints, and 13 by small-pox. 2,651 vaccine operations were performed, 2,286 of these proving successful.

General health.

Tellicherry.

Population, 20,504.

392. The drainage is led to the sea, and the present drains seem sufficient.

Drainage.

393. Is obtained from a large number of private and a few public wells. Is good and sufficient.

Water-supply.

394. The town is kept fairly clean. The sweepings, rubbish, &c. are collected and stored on the sea-shore and sold. The night-soil is removed in carts a little out of the town and buried on the beach in sand-pits. There are four pucka public latrines and nine wooden ones on the beach. The sanitary condition was fair. The practice of burying old fish refuse in sand-pits should be put a stop to. These pits are opened once a year, and the smell arising therefrom is something fearful and causes sickness.

Conservancy and sanitary condition.

395. Nothing of importance. Nine wooden latrines were put up on the beach, and a masonry terrace for the recreation of the public is under construction.

Sanitary works.

396. Was good. No epidemic diseases prevailed. 449 persons died during the year and 480 children were born. Of the persons who died, 96 of them fell victims to fevers and 52 to bowel-complaints. 984 persons were vaccinated, on 855 of whom the operation was successful.

General health.

Tinnevelly.

Population, 21,044.

397. The main roads and streets are provided with masonry drains, and certain irrigation channels also which intersect the town serve as drains. No system of house drainage exists.

Drainage.

398. Is obtained from three channels intersecting the town, and fed by the Támbraparni river. When these channels fail in the dry season, the people get their supply from the river itself and from a well and tank in the town. The arrangements for water-supply do not appear to be satisfactory in regard to purity or amount.

Water-supply.

399. The town was kept clean by a sufficient conservancy staff. The sweepings, dry rubbish, &c. were collected and burnt in cinerators. The ashes were mixed with night-soil, and buried in pits and eventually sold as manure. The native cultivators of the Támbraparni Valley value the manure very much, and will give as much as Rupees 2 for a bandy-load. There are ten public latrines, five of which are masonry built and five temporary erections either of mud or bamboo taties. The sanitary condition was good, and the Municipality, under the presidentship of Mr. Pennington, pay every attention towards the cleanliness and sanitary improvement of the town.

Conservancy and sanitary condition.

Sanitary works.

400. A latrine and a cinerator were newly constructed, five latrines were repaired, the main channels were cleaned, and several roads and streets were gravelled.

General health.

401. The general health is reported as having been good; excepting the prevalence of some small-pox, no epidemics occurred. 801 deaths were recorded and 669 births. Fevers caused 96 deaths, bowel-complaints 147, and small-pox 97. The number of persons vaccinated was 575, the operation proving successful in 422 instances.

The vaccination in this town is not so good as it ought to be.

Trichinopoly.

Population, 76,530.

Drainage.

402. The drainage of the town is said to be indifferent. There is no regular system of drainage. Side drains exist in some streets, and the surface drainage of the fort is carried to irrigation fields in the neighbourhood.

Water-supply.

403. Water from the River Cauvery is chiefly used, and is brought by the Wycondah channel which passes through the town. This water is subject to defilement in many ways, and the water-supply of the town is not altogether satisfactory. The unfavorable conditions reported last year still exist.

Conservancy and sanitary condition.

404. The town is kept fairly clean by an adequate conservancy staff. The street sweepings, &c. are collected in dust-bins and carted to depôts where they are burnt in cinerators. The night-soil from the latrines is carted three miles out of the town, where it is deposited in pits. The ashes from the cinerators are mixed with the night-soil and sold as manure. Forty-five carts are employed to remove the sweepings and rubbish, and twenty-one to remove the night-soil from the public latrines, of which there are fifty-four of different kinds. The sanitary condition of the town was good and conservancy much improved.

Sanitary works.

405. Nothing of importance, beyond the cleaning of some drains and channels and repairing some dust-bins and latrines.

General health.

406. Was generally good. No epidemics prevailed except some small-pox in a sporadic form. The deaths registered numbered 1,573 and the births 1,512. Fevers caused 354 deaths, bowel-complaints 442, and small-pox 26; 1 death is recorded from cholera. 2,319 persons were vaccinated, and the operation proved successful on 2,048 of them.

Tuticorin.

Population, 10,565.

Drainage.

407. Very defective. There is an entire absence of any arrangements for drainage. A scheme, however, for effectually draining the town is now under consideration.

Water-supply.

408. Is obtained from a reservoir four miles distant, fed by the Támbraparni river. The water is brought in an open channel to a cistern in the outskirts of the town, from which it is led in masonry conduits to numerous dipping wells. The water is good, but the dipping wells, if not properly conserved, will always be a source of danger.

Conservancy and sanitary condition.

409. The town is swept every day and kept fairly clean. The sweepings, &c. are burnt in cinerators and the night-soil buried. There are six leaf latrines, and nine carts are employed to remove the night-soil. The sanitary condition of the town is fairly good.

Sanitary works.

410. An underground drain was built to carry off storm water.

General health.

411. Was fairly good. No epidemic diseases prevailed. 413 deaths and 503 births were recorded. Of the deaths fevers caused 94, bowel-complaints 124, and small-pox 2. The vaccine operations numbered 839; of these 636 were successful.

Vizagapatam.

Population, 32,191.

Drainage.

412. V-shaped drains exist in the sides of the streets, into which refuse waters, &c. flow. These drains empty themselves into a large square drain on the swamp communicating with a salt-water tank. A scheme to reclaim the swamp is under consideration.

Water-supply.

413. Is obtained principally from wells; the quality is good and sufficient in quantity.

Conservancy and sanitary condition.

414. Conservancy is attended to by an adequate staff of servants. The streets are swept daily and the town kept clean. All sweepings, night-soil, &c. are buried outside the town. There are forty-two latrines, of which twelve are pucka built. The sanitary condition of the town on the whole was fair, but in the fishermen's quarters cleanliness appears to be neglected.

Sanitary works.

415. A large V-shaped drain, 102 yards in length and $1\frac{2}{3}$ yards in breadth, is under construction, eight pucka privies were constructed and other existing ones repaired, and several other minor works executed.

General health.

416. Unsatisfactory. Cholera, small-pox, fevers, bowel-complaints, &c. prevailed somewhat. The total deaths registered amounted to 1,541 and the births 834. Of the deaths cholera was the cause in 61 instances, small-pox in 106, fevers in 276, and bowel-complaints in 230. The number of persons vaccinated was 1,057, and on 989 of them the operation was successful.

Vizianagram.

Population, 20,169.

Drainage.

417. In some rough stone drains exist, and in others V-shaped cut drains; the streets are wide and the drainage fair.

Water-supply.

418. Is obtained from tanks and wells, and is of good quality.

Conservancy and sanitary condition.

419. The streets, &c. are cleaned once a day and the town kept clean. The drains are cleaned twice daily. The sweepings, &c. are removed and taken away by contractors, who assist in the conservancy of the town. There are twenty public latrines. The sanitary condition in 1879 was on the whole fair.

Sanitary works.

420. Two hundred and fifty yards of rough stone drains were constructed and repaired, some tunnels were constructed and others repaired, and pits where stagnant water lodged were filled.

General health.

421. Unsatisfactory. Fevers prevailed largely, causing 586 deaths. The total deaths was 697, two of which were from small-pox. The births numbered 598, and the vaccinations 677,—661 being successful.

Vellore.

Population, 38,022.

Drainage.

422. Indifferent as a whole. The drainage of private houses flows into the streets.

Water-supply.

423. Is obtained principally from private wells and from a large reservoir, the Seriagunta tank, fed by the drainage of the Vellore hills.

Conservancy and sanitary condition.

424. The conservancy of the town is done on contract, the contractors taking the sweepings, &c. and carrying them out of Municipal limits. 30 sweepers and 38 toties with 31 rubbish carts and 3 night-soil carts are employed to clean the streets and latrines daily. The sweepings, &c. are used as manure. There are nineteen latrines in the town. More are required, as the streets, lanes, and drains are made use of for purposes of nature. The sanitary condition was not altogether good.

Sanitary works.

425. One thousand one hundred and seventy-eight yards of V-shaped and 433 yards of rectangular drains were constructed, some prickly-pear bushes were removed, and some of the latrines repaired and whitewashed.

General health.

426. With the exception of the prevalence of some small-pox and fevers, the general health on the whole was fair. 670 deaths and 750 births were registered. Fevers caused 268 deaths, bowel-complaints 58, and small-pox 28. 679 persons were vaccinated, on 594 of whom the operation was successful.

Wallajapett.

Population, 12,103.

Drainage.

427. The streets have side-drains and the drainage of private houses is fair, the gardens being large.

Water-supply.

428. Is obtained from five tanks fed by springs and flood waters. The water is good.

Conservancy and sanitary condition.

429. The streets were swept daily and kept clean by a staff of Municipal servants. The sweepings, night-soil, &c. are removed outside of the town and sold by auction. There are eight latrines and two urinals in the town. The sanitary condition was fair.

Sanitary works.

430. The backyards of 41 houses were cleared of rank vegetation, 11 houses which were in a dangerous state were either demolished or repaired, 17 ruined walls in unclaimed grounds were destroyed and levelled, 2,870 yards of prickly-pear were removed, 269 dust-bins were repaired and 107 new ones erected, and several drains, tanks, wells, and latrines were cleaned and repaired.

General health.

431. With the exception of the prevalence of some small-pox the general health of the people appears to have been good. 372 deaths occurred; of these 65 were from small-pox, from fevers 75, and bowel-complaints 14. The births registered numbered 374, and the vaccinations 345,—268 proving successful.

This town was formerly a great trading depôt, but the railway has destroyed its prosperity, and now the place is perceptibly decaying.

Nellore.

Population, 29,922.

Water-supply.

432. Obtained from wells, abundant in quantity and generally good in quality; but the water from some wells is brackish. River water also is used by the people living near by it, but it is impure, and steps have been taken to remove the causes of impurity noted in last year's report.

Drainage.

433. Natural drainage good, artificial drainage defective. The same defects noted last year still exist.

Conservancy and sanitary condition.

434. The town is kept clean by an adequate conservancy establishment. Dust-bins are placed all over the town, and street sweepings, rubbish, &c. are collected and sold as manure. There are seventeen latrines in the town which are simple enclosed spaces. The dry-earth system is not used. The night-soil is removed in covered carts and buried in the river below the anicut.

Sanitary works.

435. None of importance; some dust-bins and drains were built.

General health.

436. Was on the whole good. There was an entire absence of epidemic disease. 269 births and 386 deaths were registered, and 412 vaccine operations were performed of which 363 proved successful. Of the deaths fevers were the cause in 113 instances and bowel-complaints in 65.

Guntur.

Population, 18,033.

Water-supply.

437. Obtained from numerous wells and two tanks, of good quality. Great care is taken by the Municipality to conserve the sources of water-supply. Men are employed to watch them and prevent their pollution in any way.

Drainage.

438. On the whole good; principally surface drainage by side cuttings along the streets running into fields out of the town.

Conservancy and sanitary condition.

439. The conservancy of the town was satisfactorily looked after by an adequate staff of scavengering establishment who collect the street sweepings, rubbish, &c. of all kinds and remove them in carts outside the town where they are sold to ryots as manure. Numerous dust-bins exist which are placed in different parts of the town. There are fourteen latrines, all of which, except two, are pucka built with seats and improved arrangements for securing privacy, &c. The night-soil is removed and buried in pits outside of the town. The ryots, from caste prejudices, will not make use of it for manuring purposes. The sanitary condition of the town was good. Great attention is paid to sanitation in Guntur under the Vice-Presidentship of Surgeon Tyrrell.

Sanitary works.

440. Side drains were cut along some of the streets. Several wells were repaired and provided with parapet walls and platforms. The bunds of the black tank destroyed by cyclone were repaired, and great attention was paid to the improvement of open and public places by removing prickly-pear and croton plants which afforded shelter for the commission of nuisances of all kinds. Three latrines are under construction; a urinal has been built, the slaughter-house has been improved, and several other minor works were executed.

General health.

441. Was satisfactory. No epidemic diseases prevailed. 377 births and 341 deaths were recorded. Fevers caused 53 and bowel-complaints 33 deaths. 602 persons were vaccinated, on 378 only of whom successful marks appeared. On inquiry it was found the large number of unsuccessful operations was due to the use of bad and deteriorated lymph.

Rajahmundry.

Population, 19,738.

Water-supply.

442. Is obtained chiefly from the Godávari river, abundant and good. Most of the wells in the town contain brackish water.

Drainage.

443. In some of the streets masonry drains exist and in others there are side cuttings. The drainage runs into the Godávari and also into some tanks. Some of the masonry drains are not kept clean. The drainage of a part of the town called Innespettah is very defective. This suburb lies on low ground, and during rains becomes a vast swamp. Cess-pits exist in private houses which are cleaned by the Municipality.

Conservancy and sanitary condition.

444. Conservancy is attended to by a staff of municipal servants. The main streets are kept clean, but the outskirts of the town are very dirty and are largely used for the purposes of nature. Many vacant sites exist which are in a dirty state. There are 200 dust-bins in the town and eight latrines, four of which are pucka built, besides these there are 1,000 private latrines which are looked after by municipal servants. All street sweepings, rubbish, &c. are carried away and deposited outside the town and occasionally sold as manure. The night-soil is removed to a distance and buried in pits. Sufficient earth does not appear to be thrown over the deposits; the place is kept dirty and a bad smell prevails about it. The backyards of private houses also are kept very dirty. Cattle are tied in them and there is no drainage for the escape of the fluid excreta, &c.

Sanitary works.

445. Beyond some minor repairs to a drain and a tunnel and the extension of a masonry drain at a cost of Rupees 100, no works of any importance were executed.

General health.

446. Was on the whole fair. Some cholera and small-pox prevailed. 788 deaths and 707 births were registered during the year. Of the deaths 73 were from cholera, 5 from small-pox, 152 from fevers, and 98 from bowel-complaints. 682 persons were vaccinated, on 638 of whom successful marks appeared.

447. In the Medical Officer's opinion cholera would appear to have been imported in the town; the following is his report:—

From the Zillah Surgeon, Rajahmundry, to the Vice-President, Municipal Town, Rajahmundry, No. 97, dated 28th February 1880.

* * * *

"With reference to para. 3 of the letter above alluded to, I beg to state, for the information of the Sanitary Commissioner, that my reasons for connecting the outbreak of cholera in the town in December 1878 with the arrival of the 29th Regiment N. I. are as follows:—

"Previous to the arrival of the wing of the regiment there was no cholera in the town nor were any reported to have occurred since August of that year. On the 18th December some followers of the regiment were seen in the town that day and, on that night a bricklayer named Mookalah Mulliah was suddenly seized with the disease and died after a few hours' illness.

"The regiment arrived the following day. Two children of the families were brought into the station with the disease; one of them died on the evening of the 19th and the other on the night of the 20th. This fact was brought to my notice by the Sanitary Inspector.

"Between 1 and 2 P.M. of the 20th I received your note informing me of the occurrence of two cases of cholera among the men of the regiment. I immediately saw the Medical Officer and the Colonel of the corps, and desired them to shift camp, which Colonel Rammel said he had already arranged to do; and to free them of all difficulties in moving out I had the sick privates removed to the epidemic ward of the dispensary, where one of them died the same night. The regiment left the following morning. The spot on which the hospital tent was pitched was thoroughly swept, the rubbish burnt and fumes of coal tar was allowed to pervade through the atmosphere. The same process of cleansing and fumigating was adopted over the whole encamping ground.

"The above facts clearly prove that cholera was imported by the followers of this corps into the town. It is reported that the regiment had passed by some infected villages in the Ellore District, where a few cases had occurred, and where they must have taken the seeds of the disease and brought it in with them into Rajahmundry."

Statement showing the estimated Income and Expenditure for Sanitary purposes, Birth and Death Rates, and Numbers Vaccinated in each Municipality during the Year 1879.

Districts.	Municipal Towns.	Population.	Birth-rate per 1,000 of Population.	Death-rate per 1,000 of Population.	Cholera per 1,000 of Population.	Fevers per 1,000 of Population.	Small-pox per 1,000 of Population.	Bowel-complaints per 1,000 of Population.	Estimated Income, 1879-80.	Sanitary Expenditure, 1879-80.	Rate per cent. of Sanitary Expenditure to available Income.	Number vaccinated. Total.	Number vaccinated. Successful.	Amount allotted for Vaccination.	Total Births.	Deaths from Small-pox. Total.	Deaths from Small-pox. Under 1 Year.	Deaths from Small-pox. Under 12 Years.
									Rs.	Rs.				Rs.				
Bellary	Bellary	51,766	16·7	44·4	...	14·4	...	3·5	77,615	31,042	39·9	1,257	1,020	676	869	...	...	...
	Adóni	22,723	10·5	79·5	...	16·8	...	30·0	18,423	6,020	32·6	550	519	210	240	...	...	...
	Ghooty	6,730	4·4	31·2	...	5·6	...	9·2	3,272	1,874	57·2	...	...	...	30	...	...	...
	Anantapur	4,918	14·4	24·8	...	13·4	...	...	6,971	1,836	26·3	83	79	48	71	...	...	...
Chingleput	Conjeeveram	37,327	26·1	22·2	...	8·4	0·7	6·5	24,790	5,790	23·3	911	754	210	976	29	5	24
Coimbatore	Coimbatore	35,310	20·6	13·4	...	4·7	0·02	1·3	36,125	7,264	20·1	734	696	185	730	1	...	1
	Erode	10,201	15·0	16·1	...	5·5	...	2·4	8,789	1,794	20·4	321	313	130	154	...	...	...
	Caroor	9,378	19·8	19·5	...	7·0	...	2·2	8,518	2,428	28·5	382	355	120	186	...	...	...
Cuddapah	Cuddapah	16,275	27·1	56·5	...	34·5	...	1·4	39,248	9,564	24·3	270	159	197	442	...	...	...
Ganjam	Chicacole	15,587	14·6	21·4	0·2	8·2	0·1	3·7	12,542	2,456	19·5	292	225	159	228	3	1	...
	Berhampore	21,670	16·7	29·1	0·1	3·6	8·3	0·5	21,460	3,922	18·2	468	388	200	362	182	31	127
Godávari	Cocanada	17,839	21·6	39·0	4·5	2·4	0·1	5·0	36,690	5,922	16·1	694	535	230	386	2	...	2
	Rajahmundry	19,738	35·8	39·9	3·6	7·7	0·2	4·9	21,055	6,400	30·3	682	638	150	707	5	...	4
	Ellore	25,487	26·4	31·3	6·8	3·6	0·03	2·0	23,242	3,740	16·0	775	646	240	674	1	...	...
Kistna	Masulipatam	36,188	17·1	14·6	1·1	2·6	1·1	0·3	35,670	7,300	20·4	717	693	300	619	43	11	21
	Guntúr	18,033	20·5	18·8	...	2·9	...	1·8	31,508	7,592	24·0	602	378	286	377	...	...	...
Kurnool	Kurnool	25,579	20·9	46·1	...	23·9	...	5·3	31,095	12,150	39·0	339	298	190	535	...	...	...
Madras	Madras	397,552	41·8	34·7	0·08	8·7	2·2	4·4	Information not available.			21,306	17,009	...	16,629	910	299	559
Madura	Madura	51,987	41·0	36·5	0·03	11·1	1·4	4·6	75,326	23,118	30·6	1,846	1,607	350	2,134	73	21	49
	Dindigul	12,865	26·3	18·7	...	8·3	0·3	3·1	8,357	2,387	28·5	778	718	185	339	5	1	4
Malabar	Tellicherry	20,504	23·4	21·8	...	4·6	...	2·5	26,961	4,500	16·6	984	855	240	480	...	...	...
	Calicut	47,962	15·0	20·9	...	1·8	2·5	1·9	46,521	6,047	12·9	1,357	1,085	360	724	120	2	25
	Pálghat	30,752	35·8	34·7	...	13·2	0·2	2·7	25,374	2,957	11·6	1,213	1,062	300	1,102	9	...	...
	Cochin	13,840	28·7	50·0	...	8·0	11·6	2·4	17,090	3,350	19·5	950	652	234	398	161	13	48
	Cannanore	31,358	15·6	12·2	...	2·3	...	0·4	24,460	7,668	31·3	1,136	966	340	490	...	...	...

Statement showing the estimated Income and Expenditure for Sanitary purposes, Birth and Death Rates, and Numbers Vaccinated in each Municipality during the Year 1879—(Continued).

Districts.	Municipal Towns.	Population.	Birth-rate per 1,000 of Population.	Death-rate per 1,000 of Population.	Cholera per 1,000 of Population.	Fever per 1,000 of Population.	Small-pox per 1,000 of Population.	Bowel-complaints per 1,000 of Population.	Estimated Income.	Sanitary Expenditure.	Rate per cent. of Sanitary Expenditure to available Income.	Number vaccinated. Total.	Number vaccinated. Successful.	Amount allotted for Vaccination.	Total Births.	Deaths from Small-pox. Total.	Deaths from Small-pox. Under 1 Year.	Deaths from Small-pox. Under 12 Years.
									RS.	RS.				RS.				
Nellore ...	Nellore ...	29,922	8·9	12·8	...	3·7	...	2·1	37,630	6,700	17·8	412	363	220	269	...	...	...
	Ongole ...	7,392	33·1	33·5	...	10·4	...	0·6	6,840	1,890	27·6	187	95	120	245	5	...	2
North Arcot ...	Vellore ...	38,022	19·7	17·6	...	7·0	0·7	1·5	47,996	9,896	20·6	679	594	350	750	28	8	20
	Wálajápet	12,103	30·8	30·7	...	6·1	5·3	1·1	12,904	2,983	23·1	345	268	210	374	65	9	56
Nilgiris ...	Ootacamund	9,982	33·2	25·8	...	6·7	...	2·4	38,040	20,800	54·6	719	660	250	332	...	...	...
	Coonoor ...	3,058	25·1	39·2	...	8·8	...	15·3	17,077	4,450	26·0	689	616	216	77	...	...	...
Salem ...	Salem ...	50,012	19·4	22·4	...	8·9	0·05	2·9	59,240	13,840	23·3	1,032	942	480	973	3	...	3
South Arcot ...	Cuddalore	40,290	17·2	19·1	0·2	8·6	0·8	1·5	33,513	7,730	23·0	1,028	878	280	694	34	7	21
	Chilambaram	15,519	26·3	25·8	...	11·7	2·8	2·1	14,658	2,860	19·5	487	455	120	409	44	13	20
South Canara ...	Mangalore	29,712	16·5	22·0	...	6·0	...	3·0	34,760	5,460	15·6	1,085	969	190	492	...	...	...
Tanjore ...	Tanjore ...	52,175	26·6	21·7	...	4·3	0·2	6·1	55,100	25,558	46·3	2,651	2,286	320	1,391	13	5	6
	Kumbakonam	44,444	34·8	34·2	...	6·0	0·1	5·5	48,690	12,410	25·4	5,301	3,769	315	1,551	6	6	...
	Mayaveram	21,165	32·7	31·2	0·09	5·2	1·5	5·9	21,300	4,895	22·9	509	501	220	694	32	7	21
	Negapatam	48,525	19·7	21·3	1·1	5·1	0·1	4·1	61,470	15,925	25·9	1,518	1,380	425	959	7	1	6
	Manárgudi	17,703	30·5	19·2	0·5	2·5	...	2·5	23,210	5,185	22·3	1,212	1,086	205	540	...	...	...
Tinnevelly ...	Tinnevelly	21,044	31·7	38·0	...	4·5	4·6	6·9	22,400	4,436	19·8	575	422	190	669	97	11	83
	Palamcottah	17,915	36·3	30·6	...	4·0	1·7	5·5	21,954	4,050	18·4	524	415	130	653	31	5	25
	Tuticorin	10,565	47·6	39·0	...	8·8	0·1	11·7	26,523	6,430	24·2	839	636	250	503	2	...	2
Trichinopoly ...	Trichinopoly	76,530	19·7	20·5	0·01	4·6	0·3	5·7	87,278	19,190	21·9	2,319	2,048	910	1,512	26	5	18
	Sriraugam	18,655	17·3	24·2	0·05	7·1	0·1	3·5	16,301	4,857	29·8	730	643	314	323	2	1	1
Vizagapatam ...	Vizagapatam	32,191	25·9	47·8	1·8	8·5	3·2	7·1	24,179	8,383	34·6	1,057	989	330	834	106	13	77
	Bimlipatam	8,744	18·2	26·5	...	10·4	0·1	4·6	11,184	2,301	20·5	409	402	150	160	1	...	1
	Vizianagrum	20,169	29·6	34·5	...	29·0	0·09	1·2	15,848	3,713	23·4	677	661	200	598	2	1	...
	Anakápalle	13,044	14·9	37·5	7·3	15·6	3·2	2·1	7,473	1,480	19·8	398	355	170	195	43	...	36
Total ...		1,620,480	27·8	29·8	0·4	8·1	1·2	4·1	14,06,670	3,62,543	25·7	64,029	53,083	12,105	45,079	2,091	476	1,262

LOCAL FUND CIRCLES.

448. In the following pages an abstract is given of the sanitary reports of the several Local Fund Circles in the Madras Presidency received in the Sanitary Commissioner's Office, and appended is a table showing the estimated available income and the sanctioned expenditure for sanitation and vaccination, &c. The figures were obtained from the sanctioned budget estimate of each circle for the year 1879-80.

449. From this table it will be seen that the total available income (one-third land cess) for the year amounted to Rupees 13,50,026; of this sum Rupees 3,01,580, or 22·3 per cent., were set apart for sanitation and Rupees 1,29,320 for vaccination. As a whole 22·3 per cent. of income may be considered as a fair allotment for sanitary expenditure, but the grants vary in the several circles from 1·7 per cent. in the Tellicherry Circle to 94·2 in Guntúr.

450. In Tellicherry, Calicut, and Canara Circles the percentage is very low, but the conditions of these countries are such that no large outlay need be made for conservancy purposes. In ten circles the allotments for sanitation were below 15 per cent. of available income, in eleven they were from 15 to 20 per cent., and in twelve above 20 per cent. It is remarkable that the circles in which the percentages were below 15 were all famine areas of 1877-78.

451. Much does not appear to have been accomplished generally as regards the execution of useful sanitary works. In a few circles however some improvements have been made. The greater portion of the sanctioned sanitary grants appears to have been devoted to conservancy purposes, and scavengering establishments were maintained to keep the streets, &c. clean in some of the larger villages and towns in each circle. In some instances large sums of money have been sanctioned for the improvement of water-supply and village sites, &c., but these allotments do not generally seem to have been fully made use of. This is to be regretted. I would fain hope that for the future the local Boards would see that the whole of the sanctioned amount for sanitation is fully utilized, and that scavengering establishments are maintained in a larger number of towns and villages, thereby extending the area of country coming under conservancy rules. As a rule, at present only a few of the larger villages and towns in a circle enjoy the privilege and benefits of a conservancy establishment.

452. Deputy Inspectors of Vaccination, paid from Local Fund revenues, are now employed on sanitary inspection work, and their reports, week after week, contain a universal complaint of the bad conservancy of villages and the utter neglect of the simplest rules of sanitation. Defilement of waste lands and village sites with human excrement is common everywhere, and heaps of manure and other offensive and noxious matters abound on all sides, thus showing how important and necessary it is that conservancy establishments should be employed and extended all over the country, and the rural population made to understand and appreciate the rudiments of sanitation.

453. In connection with the recent changes in the Medical Department, and the question of a more systematic and thorough inspection of villages, &c. by some responsible officer, it is in contemplation to utilize the services of Civil or Zillah Surgeons of districts for sanitary inspection work as assistants to the Sanitary Commissioner. When this scheme, which is now before Government, is developed and put into force, it is hoped that by a constant inspection of villages, and defects being brought to notice, more attention will be paid to village sanitation, a regular system of conservancy establishments introduced, and the evil influences exercised by filth and dirt and accumulation of offensive matters on the public health will gradually pass away.

Bellary Circle.

454. This circle comprises six taluks in the Bellary District.

Sanitary works.

455. None executed owing to want of funds. There appears to have been no extension of the conservancy establishment during the year. As in the preceding year, conservancy establishments were maintained in only seven of the larger villages at a cost of Rupees 1,212. The two usual festivals—Mylar and Humpi—took place in February and April, and the sanitary arrangements made on the occasions were satisfactory.

Epidemics.

456. None.

General health.

457. Unsatisfactory. Fevers were prevalent, and the dispensaries in the earlier part of the year were full of patients still suffering from the effects of long starvation. The numbers are, however, on the decline. The sanitary condition of the circle is backward.

Gooty Circle.

458. This circle is in the Bellary District, and is composed of five taluks.

Sanitary works.

459. One well and a tank were repaired for Rupees 815 and the repair to another well was in progress. Two latrines were constructed at the Gooty Railway Station at a cost of Rupees 454, certain streets were repaired for Rupees 150, and Rupees 72 were spent in filling up certain offensive ruined grain pits. Conservancy establishments were maintained in only nine villages at an estimated cost of Rupees 2,448. In reviewing the budget estimate of this circle for 1879-80, the Sanitary Commissioner brought to notice the inadequacy of the grant for sanitary purposes, and pointed out that no provision was made for the improvement of water-supply or village sites. The grant amounted to only 13·7 per cent. of available income.

Epidemics.

460. None.

General health.

461. At the commencement of the year much fever prevailed, but as the year advanced the general health and condition of the people improved. The sanitary condition of the villages is not altogether satisfactory.

Penukondah Circle.

462. This circle in the Bellary District is made up of four taluks.

Sanitary works.

463. None. Conservancy establishments were maintained in seven villages at an estimated cost of Rupees 1,150. 15 per cent. of income only was allotted by this circle for sanitary purposes for the year 1879-80, but for want of funds the grant could not be increased.

Epidemics.

464. None.

General health.

465. Unsatisfactory. Fevers prevailed largely, ascribed to the extreme dampness of the year, caused by excessive rains.

Canara Circle.

466. This circle comprises the whole of the South Canara District.

Sanitary works.

467. No new works were executed. Drainage is natural and good, and water-supply abundant and of good quality. No improvements in these directions are required. The allotment made for sanitary purposes for 1879-80 is very small, but the conditions of the country are such that no special conservancy arrangements are necessary.

Epidemics.

468. None.

General health.

469. The health of the people was on the whole satisfactory, and the sanitary condition of the circle fair.

Saidapet Circle.

470. This circle is in the Chingleput District, and consists of three taluks.

Sanitary works.

471. Rupees 104 were spent in improving the water-supply, one well was repaired and a tank cleaned, Rupees 20 were spent in repairing certain streets, and a further sum of Rupees 150 will be spent for this same purpose, and attention paid to the removal of prickly-pear; some latrines were repaired at a cost of Rupees 22, and Rupees 65 were devoted to clean out the village of Kunathoor and its suburbs, where fever of a malarious type prevailed largely. In only three of the larger towns conservancy establishments were employed, and they were kept fairly clean. In the outlying villages, when defects were brought to notice, efforts were made to have them cleaned, but with doubtful success. The people are ignorant, and they cannot appreciate or do not understand what filth and dirt is. The funds at the disposal of the Board are not sufficient to effect improvements, and unless an Act is passed for the collection of a scavengering tax in every village, it is hopeless to expect, with the present revenue system, that any real good can be done.

Epidemics.

472. Small-pox prevailed somewhat largely; 298 deaths from it were recorded. A few cases of cholera also occurred in the beginning of the year. Six deaths were registered, 5 in February and 1 in April. With a vigorous prosecution of vaccination, however, the disease was brought under control. An epidemic of fever also prevailed in a village called Kunathoor and three adjoining ones.

General health.

473. With the exception of small-pox and fevers noted above, the general health of the people was good. The sanitary condition of the circle was indifferent.

Chingleput Circle.

474. This is another circle in the Chingleput District, comprised of three taluks, besides the Saidapet Circle, and the conditions of both would appear to be pretty much the same. The two circles have since been amalgamated under the designation of Chingleput Circle.

Sanitary works.

475. Nothing of importance. Rupees 250 were appropriated from the grant for conservancy purposes for the improvement of certain village sites. Ten villages in this circle enjoy the privilege of a conservancy establishment.

Epidemics and General health.

476. *Vide* remarks on Saidapet Circle.

Coimbatore Circle.

477. This circle is divided into two sections, northern and southern, each containing five taluks. The whole district of Coimbatore is comprised within it.

Sanitary works.

478. Certain wells were repaired and the repairs to some more were in progress, the estimated cost of the whole being Rupees 772. Rupees 280 were sanctioned for the improvement of village sites, of which only Rupees 30 were spent in clearing some prickly-pear bushes. The other works for which the amount was sanctioned were in progress. Rupees 15,660 were allotted for conservancy. Scavengering establishments were employed in the

larger and more important villages in the district at a monthly cost of Rupees 853. A few latrines were constructed at a cost of Rupees 120, some of the existing ones were repaired, and the repairs to others were in progress. The usual sanitary arrangements were made during the car festivals which took place during the year.

Epidemics.

479. With the exception of a slight outbreak of small-pox in the Erode Taluk, no epidemics occurred during the year.

General health.

480. The health of the people and the sanitary condition of the circle was fair. In the hilly tracts, however, fever of a malarious type prevailed.

Cuddapah Circle.

481. This circle is in the Cuddapah District, and is composed of seven taluks.

Sanitary works.

482. No new works were completed during the year, with the exception of some roads at a cost of Rupees 98; but the construction of several latrines and dust-bins, and repairs to existing roads, latrines, &c. were in progress at an estimated cost of Rupees 3,717. Conservancy establishments were employed in nine of the larger villages only of the circle. Contract system of conservancy is adopted here.

Epidemics.

483. None.

General health.

484. On the whole satisfactory; but fevers, guinea-worm, and ulcers prevailed somewhat in some parts of the country. The effects of the famine were still visible in the low birth-rate, but the evil results are gradually passing away.

Madanapalle.

485. This is another Local Fund Circle in the Cuddapah District, and it is made up of four taluks.

Sanitary works.

486. One large well at a cost of Rupees 524 and two smaller ones at a cost of Rupees 90 were constructed during the year; these are very useful. In this circle only five villages enjoy the privilege of a conservancy establishment. Here, as in the Cuddapah Circle, the contract system of conservancy is adopted.

Epidemics.

487. None.

General health.

488. On the whole fair. Fevers prevailed somewhat. The births still keep low, but the evil effects of the famine are gradually dying out. With reference to this the Vice-President writes as follows:—

"Slowly but surely they (the people) seem in my humble judgment to be recovering. The birth-rate is, however, very small; whether the women's power of conception is feeble, or the men's generative power is weak, I do not pretend to say; one thing I have particularly observed, the girls do not come to puberty as early as usual."

Chetterpore Circle.

489. This is a circle in the Ganjam District comprising eight taluks (two Government and six Zemindari taluks).

Sanitary works.

490. Some cut-stone drains were constructed and others were in progress, a tank was repaired, some roads and streets were constructed and others repaired, and some jungles cleared. Rupees 3,282 were spent on conservancy, and thirteen villages in the circle enjoyed a scavengering establishment.

Epidemics.

491. Cholera and small-pox prevailed. The former was a continuation of the epidemic of 1878, and was less severe; it died out in August, and caused only 33 deaths against 2,238 in 1878 in the two Government taluks. The latter was severer in 1879 than in 1878, 762 deaths having been recorded against 371 in 1878.

General health.

492. With the exception of cholera and small-pox was on the whole satisfactory. The sanitary condition of some of the larger villages has much improved by the employment of conservancy establishments, but that of the smaller villages, &c., is unsatisfactory. Great difficulty is experienced to induce the rural population to attend to the simplest form of sanitation.

Chicacole Circle.

493. This circle is in the Ganjam District, and consists of four taluks, one of which only is a Government taluk.

Sanitary works.

494. Eight wells were sunk at a cost of Rupees 690, and three tanks were cleaned and repaired at a cost of Rupees 410. Rupees 2,908 were spent on conservancy establishments. No details are given as to how this money was distributed and in how many villages they were employed.

Epidemics.

495. Nothing of importance. Small-pox and fever prevailed to a slight extent.

General health.

496. Was on the whole satisfactory, and the sanitary condition of the circle was fair.

Cocanada Circle.

497. This circle comprises eight taluks in the Godavari District, some of them being Zemindari taluks.

Sanitary works.

498. Two tanks and one well were constructed, five tanks and four wells were repaired, and several ponds were dug, as in the previous year, to supply the people of Coringa with water during the hot weather. Twenty scavengers were employed, and the conservancy of only some of the principal villages was attended to. The usual sanitary arrangements were made on the occasion of two festivals that took place during the year.

Epidemics.

499. A severe outbreak of cholera occurred and lasted till August. Small-pox also prevailed to some extent.

General health.

500. Cannot be said to be satisfactory. Cholera, small-pox, and fevers prevailed largely. The sanitary condition of the circle was fair.

Ellore Circle.

501. This circle contains five taluks of the Godavari District.

Sanitary works.

502. A few tanks, one well, and several streets were repaired. Rupees 1,150 were allotted for conservancy, and in only five of the larger villages in the circle scavengering establishments were maintained. Besides this, temporary scavengers were employed in all villages where fairs were held.

Epidemics.

503. Cholera prevailed largely.

General health.

504. With the exception of the prevalence of cholera and some fever, the general health of the people may be said to have been on the whole fair. The sanitary condition of the circle is improving

Guntur Circle.

505. This circle is in the Kistna District, and is comprised of six taluks.

506. The flood banks commenced last year to protect certain villages from inundation were completed, several streets were levelled and repaired, some village roads were constructed, prickly-pear bushes removed, and several tanks and wells were repaired and cleaned. The total amount set apart for the improvement of the water and village sites amounted to Rupees 24,000, but how much of this money was spent during the year is not known, and no details are given of the works executed. Rupees 9,870 were set apart for conservancy purposes, and twenty-nine of the larger villages and small towns in the circle enjoyed the benefit of a conservancy establishment. Rupees 700 were spent for sanitary arrangements made during the fairs and festivals which occurred in the year.

Sanitary works.

Epidemics. 507. Cholera prevailed somewhat.

508. Some fever of a virulent type prevailed in the latter portion of the year, but on the whole the general health may be said to have been fair. The sanitary condition of the circle was tolerably good.

General health.

Masulipatam Circle.

509. This is another circle in the Kistna District, and contains seven taluks.

510. Several tanks and wells were repaired, a new well was sunk, and some prickly-pear bushes were removed. Levelling of streets and construction of side drains in four villages and repairs to tanks and wells in seven villages were in progress. The allotment for improvement of water-supply and village sites, &c. amounted to Rupees 12,500. Sanitary arrangements were also made in five villages on the occasion of certain festivals that were held in them. Rupees 7,914 were allotted for conservancy establishments, and thirteen villages in the circle were kept clean. A scheme for offering rewards to heads of villages who keep their villages clean is under the consideration of the Board.

Sanitary works.

Epidemics. 511. Cholera and small-pox prevailed.

General health. 512. On the whole satisfactory, and the sanitary condition was fair.

Kurnool Circle.

513. This circle comprises the whole of the Kurnool District.

514. Nothing of importance. Several wells were repaired and a pit was filled in. Conservancy establishments were employed in thirteen villages of the circle to keep the streets, &c. clean at a cost of Rupees 5,910, and Rupees 770 were spent for sanitary arrangements during fairs and festivals.

Sanitary works.

Epidemics. 515. Small-pox prevailed somewhat, causing 42 deaths.

General health. 516. Unsatisfactory. Fevers prevailed largely. The sanitary condition of the circle is reported as having been fair.

Dindigul Circle.

517. This circle is in the Madura District, and four taluks are included in it.

518. Side cuttings were made in the principal streets of three taluks for drainage, eighteen new wells were sunk, and Rupees 500 were set apart for the removal of prickly-pear bushes, &c. Conservancy establishments were maintained in thirteen villages and towns to keep the streets, &c. clean.

Sanitary works.

Epidemics. 519. None.

520. With the exception of fever, which prevailed rather largely, the general health of the people was on the whole fair. The sanitary condition of villages in the rural parts of the circle is unsatisfactory, but efforts are being made by divisional and subordinate revenue officials to improve it.

General health.

Madura Circle.

521. This circle is composed of two large Zemindari and two Government taluks.

522. Three new wells were sunk and an old one repaired, and seven tanks supplying drinking-water were cleaned out and conserved. Rupees 5,900 were allotted for conservancy, and eighteen of the larger villages and small towns in the circle had the services of a scavengering establishment.

Sanitary works.

Epidemics. 523. Cholera prevailed somewhat, causing 26 deaths.

524. With the exception of the prevalence of fever of a bad type all over the circle, the general health of the people may be said to have been fair.

General health.

Calicut Circle.

525. This circle contains six taluks of the Malabar District.

526. No new works were executed. One tank and eight wells were cleaned out and protected from pollution. Rupees 850 were spent for conservancy, and sweepers were employed in only two villages.

Sanitary works.

Epidemics. 527. Small-pox prevailed.

General health. 528. Was on the whole satisfactory, and the sanitary condition fair.

Tellicherry Circle.

529. This circle also is in the Malabar District, and is made up of four taluks.

530. None. Rupees 150 were spent for the sanitary arrangements made on the occasion of two festivals which took place in the circle. No permanent conservancy establishment is maintained, the condition of the circle being such that none is required.

Sanitary works.

531. Small-pox prevailed somewhat, and a few cases of cholera occurred. During the prevalence of small-pox vaccination was vigorously prosecuted.

Epidemics.

General health. 532. The general health of the people was on the whole good, and the sanitary condition of the circle fair.

Nilgiri Circle.

533. This circle comprises the whole district. No sanitary works were executed. Rupees 410 were allotted for keeping the Coonoor Ghat clean. No epidemics prevailed, the general health was good, and the sanitary condition generally fair; but in some parts, as Gudalur, it is reported to be defective.

Nellore Circle.

534. This circle comprises the whole district.

535. No new works of importance were executed. Several wells and tanks were repaired and cleaned out, and repairs to others were in progress. The sinking of two wells was sanctioned, but the work was not completed during the year. Rupees 359 were sanctioned for the removal of prickly-pear bushes: this work was in progress at the close of the year. Rupees 3,000 were allotted for conservancy purposes, and in sixteen villages of the circle an establishment of sweepers, &c. was maintained to keep the streets, &c. clean. Besides this permanent establishment, a temporary establishment was employed to carry out the sanitary arrangements made on the occasion of two festivals which took place in the circle.

Sanitary works.

Epidemics. 536. None.

General health. 537. With the exception of the prevalence of some fever, was on the whole fair.

Chittoor and Vellore Circles.

538. These circles are in the North Arcot District. Nine taluks are included in the Chittoor Circle, and the remaining five taluks are comprised in the Vellore Circle. Some of them are Zemindari taluks.

539. In the Chittoor Circle Rupees 1,330 and in the Vellore Circle Rupees 6,976 were set apart for sanitary improvements, but no details are given in the report as to how the money was spent and the nature of the improvements made, but from the budget statements I find that Rupees 200 in the Chittoor Circle were to be devoted for filling up ruts in the roads and Rupees 1,130 to meet the expenses of the sanitary arrangements during festivals. Rupees 6,370 were allotted in the Chittoor Circle for conservancy purposes and Rupees 4,281 in the Vellore Circle. In the former, fifteen towns and villages had the benefit of a scavengering establishment, and in the latter eight.

Sanitary works.

Epidemics. 540. None.

541. Fever of a virulent type prevailed largely. With this exception the general health was otherwise on the whole good, and the sanitary condition of the circles fair.

General health.

Hosur Circle.

542. This circle also is in the Salem District, and comprises six taluks.

543. Nothing of importance. Repairs of six wells were taken on hand and the work was in progress when the year closed. The conservancy of large villages and towns was well attended to. Scavengering establishments were employed in eight places at a cost of Rupees 4,900.

Sanitary works.

Epidemics. 544. None.

545. Fevers prevailed somewhat. The general health otherwise was on the whole good, and the sanitary condition of the circle fair generally; but in some places where no scavengers are employed it was indifferent.

General health.

Salem Circle.

546. This circle is made up of six taluks of the Salem District.

547. None. Although Rupees 1,000 and 500 were set apart respectively in the budget of 1879-80 for the improvement of water-supply and village sites, and Rupees 568 for other sanitary improvements,

Sanitary works.

only two wells were repaired at a cost of Rupees 10. Rupees 6,000 nearly were spent for conservancy purposes, and in twenty-two large villages and towns scavengering establishments were maintained.

Epidemics. 548. Small-pox in mild form prevailed. There was an entire absence of cholera.

549. Was on the whole fair. Fevers and guinea-worm prevailed somewhat. The sanitary condition of the circle in places where scavengering establishments were employed was satisfactory, but in other places not so.

General health.

Cuddalore Circle.

550. This circle comprises five taluks of the South Arcot District.

551. Nothing of importance, although Rupees 4,180 were sanctioned in the budget of 1879-80 for drainage and improvement of water-supply and village sites. The repairs to a drinking-water pond were in progress, and the destruction of prickly-pear bushes in certain places was undertaken and was in progress when the year closed. Fever of a virulent type broke out in a certain village, and on inspection the village being found in a very dirty condition, Rupees 92 were spent in cleaning it out and other sanitary measures were adopted. Rupees 4,520 were allotted for conservancy, and in eleven large villages and towns scavengering establishments were maintained.

Sanitary works.

Epidemics. 552. None.

553. Unsatisfactory. Fevers and guinea-worm prevailed. The sanitary condition of the circle in some parts was fair, while in others it was indifferent.

General health.

Virdachalam Circle.

554. There are three taluks in this circle, which is situated in the South Arcot District.

555. Several wells and tanks were repaired, and the repairs to some others were in progress. Prickly-pear bushes were removed in certain places, and their destruction in other localities was in progress when the year closed. In ten villages scavengering establishments were maintained, and conservancy was attended to at a cost of Rupees 4,720.

Sanitary works.

Epidemics. 556. Cholera and small-pox prevailed somewhat.

557. Fevers prevailed to some extent. The general health of the people in some parts of the circle was fair, while in others, owing to the prevalence of fever and the reduced condition of the people, the general health was indifferent. The sanitary condition on the whole was fair.

General health.

Negapatam Circle.

558. This circle contains five taluks of the Tanjore District.

559. Several tanks and wells were deepened and cleaned. Out of fifty-eight such works eleven were completed and forty-seven were in progress, and in seventeen villages and towns the streets were repaired. In thirty-two large villages and towns scavengering establishments were employed at a cost of Rupees 12,500. Besides this, special sanitary arrangements were made during the festivals that took place in the circle at a cost of Rupees 675.

Sanitary works.

560. Cholera prevailed slightly in some outlying villages, and every precaution was taken to check its progress in time.

Epidemics.

General health. 561. The general health of the people and the sanitary condition of the circle was on the whole fair.

Tanjore Circle.

562. This circle contains four taluks of the Tanjore District.

Sanitary works. 563. Nothing of importance, though Rupees 3,747 were sanctioned in the budget of 1879-80 for the improvement of water-supply and village sites. Only a few tanks were deepened and cleaned, and the streets in one town repaired. Scavengering establishments were employed to keep seventeen of the larger villages and towns clean at a cost of Rupees 6,520. Besides this Rupees 420 were spent for sanitary arrangements during fairs and festivals.

Epidemics. 564. None.

General health. 565. Was on the whole good, and the sanitary condition of the circle is reported to have been fair.

Shermadevi Circle.

566. This circle is in the Tinnevelly District, and is composed of three taluks.

Sanitary works. 567. A large tank was constructed at a cost of Rupees 2,000, and twenty-five wells were repaired. The condition of forty villages was improved at an outlay of Rupees 900, and Rupees 100 were spent for sanitary arrangements during fairs and festivals. Rupees 3,000 were allotted for conservancy purposes, and forty large villages and towns had the services of a scavengering establishment.

Epidemcis: 568. Small-pox prevailed, causing 357 deaths. By a vigorous prosecution of vaccination the disease was brought under control.

General health. 569. The general health of the people and the sanitary condition of the circle are reported as having been satisfactory.

Tinnevelly Circle.

570. In this circle there are six taluks of the Tinnevelly District.

Sanitary works. 571. A tank was dug at a cost of Rupees 600, sixteen tanks were repaired for Rupees 1,226, two wells were dug for 123 rupees, and seventeen wells repaired for Rupees 720, Rupees 565 were spent in improvements to village sites, three bathing ghats were repaired for Rupees 301 and one constructed for Rupees 90, and Rupees 517 were spent for sanitary arrangements during fairs and festivals. Scavengering establishments were employed in thirty-nine towns and villages at a cost of Rupees 4,510, and Rupees 471 were spent in constructing conservancy carts.

Epidemics. 572. None.

General health. 573. With the exception of fever, which was unusually prevalent, the general health of the people and the sanitary condition of the circle were fair.

Trichinopoly Circle.

574. This circle is made up of five taluks and is in the Trichinopoly District.

Sanitary works. 575. Several tanks and wells were repaired at a cost of Rupees 976, prickly-pear bushes were removed, and Rupees 585 were expended for improving the sanitary condition of certain places. Rupees 8,700 were spent for conservancy purposes, and eleven towns and large villages enjoy the benefit of a scavengering establishment and public latrines.

Epidemics. 576. None.

General health. 577. Fever prevailed largely. With this exception, the general health of the people was on the whole fair. The sanitary condition of the circle was not altogether satisfactory.

Vizagapatam Circle.

578. This circle comprises the whole of the Vizagapatam District.

Sanitary works. 579. Rupees 930 were expended for sinking three new wells, constructing a tank, and for repairing seven wells and five tanks. This sum was supplemented by an equal voluntary contribution from the villagers. The sanitary condition of one town was improved at a cost of Rupees 97, and Rupees 430 were spent on other sanitary improvements. Conservancy establishments were maintained in eleven towns at a total cost of Rupees 4,410.

Epidemics. 580. Cholera and small-pox prevailed extensively, causing 574 and 606 deaths respectively.

General health. 581. Unsatisfactory. The sanitary condition of the circle is reported as having been fair.

Statement showing the Births and Deaths, estimated available Income, and estimated Expenditure for Sanitation and Vaccination during the Year 1879-80 *in the Local Fund Circles of this Presidency.*

Districts.	Local Fund Circles.	Population.	Birth-rate per 1,000 of Population.	Death-rate per 1,000 of Population.	Cholera per 1,000 of Population.	Fevers per 1,000 of Population.	Small-pox per 1,000 of Population.	Bowel-complaints per 1,000 of Population.	Available Income, one-third Land-cess.	Amount allotted for Sanitary purposes.	Rate per cent. of Sanitary Expenditure to available Income.	Amount allotted for Vaccination.	Total Number vaccinated. Successful.	Total Number vaccinated. Total.	Births.
									RS.	RS.		RS.			
Bellary ...	Bellary	645,009	8·9	24·1	...	9·1	0·08	1·2	26,000	2,930	11·2	3,590	5,114	5,765	5,748
	Gooty	644,157	7·2	26·4	...	3·8	0·00	1·9	33,333	4,600	13·8	2,300	3,119	3,292	4,669
	Pennakonda	376,649	10·8	22·5	...	12·8	0·05	0·5	13,333	2,000	15·0	1,280	1,793	2,261	4,075
Canara, South ...	Canara	918,042	17·2	24·1	...	11·9	0·1	2·9	28,860	2,170	7·5	5,460	11,317	12,923	15,858
Chingleput ...	Chingleput	497,586	34·3	19·2	...	6·5	0·7	1·1	21,666	3,150	14·5	2,000	11,478	13,150	17,094
	Saidápet	436,937	24·0	19·3	0·01	9·2	0·6	1·3	16,666	2,500	15·0	2,000			10,498
Coimbatore	Coimbatore	1,762,679	13·3	12·1	...	8·1	0·08	0·5	73,333	23,700	32·3	8,090	33,958	35,860	23,552
Cuddapah ...	Cuddapah	800,852	11·2	23·3	0·00	19·8	0·03	0·2	46,666	15,000	32·1	5,430	3,939	5,087	8,997
	Madanapalle	550,115	10·4	20·3	...	16·8	0·04	0·5	23,333	3,070	13·1	3,760	2,091	3,159	5,722
Ganjam ...	Chetterpur	1,044,232	17·4	15·8	0·0	11·2	1·6	0·2	35,000	7,000	20·0	4,300	19,040	20,571	18,245
	Chicacole								22,000	4,600	20·9	2,430			
Godávari ...	Cocanada	871,864	14·6	29·3	7·0	11·4	2·8	0·6	63,333	15,000	23·6	4,500	10,078	11,353	12,811
	Ellore	720,239	17·0	25·8	4·0	10·6	1·4	0·4	48,333	9,150	18·9	3,660	4,876	5,870	12,265
Kistna ...	Guntúr	678,067	14·9	20·0	0·4	13·7	0·1	0·2	36,666	34,570	94·2	4,210	4,266	4,926	10,155
	Masulipatam	773,999	16·3	22·3	2·6	7·4	1·5	0·3	43,333	20,670	47·7	4,000	5,697	7,177	12,619
Kurnool	Kurnool	914,233	7·1	26·7	...	21·6	0·04	0·9	46,000	6,680	14·5	2,970	3,279	3,865	6,512
Madura ...	Dindigul	1,020,805	15·0	17·2	0·00	11·8	0·1	0·7	31,333	6,000	19·1	4,440	11,413	11,656	15,385
	Madura	308,402	8·5	18·3	0·08	13·7	0·1	0·1	60,000	9,900	16 5	6,200	24,583	26,195	2,644
Malabar ...	Calicut	1,487,403	16·2	16·0	0·0	6·4	1·7	1·3	50,870	1,750	3·4	2,520	8,805	10,673	24,186
	Tellicherry	740,825	12·9	13·9	0·0	7·9	0·8	0·6	23,566	400	1·7	1,500	2,093	2,332	9,628
Nilgiris	Nilgiris	72,396	14·1	15·4	...	9·2	0·2	1·7	1,066	...	...	700	1,906	2,107	1,026
Nellore	Nellore	1,376,483	6·9	10·3	0·00	7·1	0·1	0·2	83,333	12,000	14·4	8,280	9,168	10,374	10,758

Statement showing the Births and Deaths, estimated available Income, and estimated Expenditure for Sanitation and Vaccination during the Year 1879-80 *in the Local Fund Circles of this Presidency*—(Continued).

Districts.	Local Fund Circles.	Population.	Birth-rate per 1,000 of Population.	Death-rate per 1,000 of Population.	Cholera per 1,000 of Population.	Fever per 1,000 of Population.	Small-pox per 1,000 of Population.	Bowel-complaints per 1,000 of Population.	Available Income, one-third Land-cess.	Amount allotted for Sanitary purposes.	Rate per cent. of Sanitary Expenditure to available Income.	Amount allotted for Vaccination.	Total Number vaccinated. Successful.	Total Number vaccinated. Total.	Births.
									RS.	RS.		RS.			
North Arcot ...	Chittoor	2,014,254	19·1	16·9	...	10·7	0·2	0·2	47,670	7,700	16·1	4,240	9,941	10,431	38,552
	Vellore								31,000	5,280	17·0	2,800	4,092	4,798	
Salem ...	Oosúr	553,790	7·7	14·9	...	9·4	0·05	0·1	23,333	5,800	24·8	2,520	8,759	9,602	4,285
	Salem	1,412,572	14·9	17·0	...	11·6	0·07	0·3	60,000	8,000	13·3	3,720	8,797	9,115	21,102
South Arcot ...	Cuddalore	1,141,138	19·7	19·0	0·02	10·4	1·1	0·2	47,000	9,000	19·1	2,960	9,391	10,643	22,533
	Vriddháchalam	614,186	14·3	18·1	0·1	10·4	1·2	0·1	30,000	10,020	33·4	1,770	4,533	5,028	8,823
Tanjore ...	Negapatam	889,061	30·2	24·6	0·7	3·0	1·0	0·7	42,000	15,850	37·7	3,810	29,631	31,722	26,904
	Tanjore	1,083,759	29·5	20·8	0·2	2·7	0·3	0·8	41,000	10,690	26·0	4,280	21,328	24,341	32,071
Tinnevelly ...	Shermadevi	463,287	24·2	25·1	...	9·0	0·7	1·6	25,000	5,000	20·0	2,200	7,966	9,239	11,248
	Tinnevelly	1,230,342	18·0	16·3	...	4·7	0·2	1·8	59,000	16,700	28·3	4,500	19,232	21,369	22,162
Trichinopoly ...	Trichinopoly	1,199,155	21·5	17·2	0·03	6·2	0·2	0·8	50,000	10,700	21·4	3,700	14,599	16,032	25,841
Vizagapatam ...	Vizagapatam	1,366,823	11·4	17·5	0·4	14·4	0·4	0·3	66,000	10,000	15·1	9,200	27,413	28,291	15,702
	Total ...	28,609,341	16·1	18·7	0·4	9·8	0·5	0·7	13,50,026	3,01,580	22·3	1,29,320	343,695	379,207	46 1,670

SECTION VI.

PERSONAL PROCEEDINGS.

582. In January and February the Sanitary Commissioner was occupied in a tour of inspection of the principal towns in the southern districts. During this time he inspected Chingleput, Tindivanam, Cuddalore, Chidambaram, Máyavaram, Kumbakonam, Tanjore, Vallam, Mannárgudi, Negapatam, Madura, Dindigul, Tinnevelly, Palamcottah, Tuticorin, Trichinopoly, Srírangam, and Karur.

583. In June and July Coonoor, Wellington, and Ootacamund were inspected. In August Coimbatore, Erode, Pálghat, Calicut, Salem, Vellore, Wálajápet, and Yercaud were inspected.

584. In September Bellary, Adoni, Gooty, Cuddapah, and the military station of Secunderabad were inspected.

585. The Deputy Sanitary Commissioner was employed in inspecting the Districts of Cuddapah, Kurnool, Bellary, and North Arcot in the early months of the year. In April he visited South Canara.

586. In May and June he inspected the vaccine arrangements of the Nílgiri district. In July he visited Malabar, and after July he proceeded to make a tour of the southern districts, viz., Chingleput, South Arcot, Tanjore, Madura, Tinnevelly, Trichinopoly, and British Cochin.

587. The northern districts had been inspected late in 1878, and arrangements were made for their inspection early in 1880, so that they were not visited during the year under review. The employment of the Deputy Sanitary Commissioner in general sanitary inspection as well as in the superintendence of vaccination has been of great help in the systematic visitation of Municipalities and towns where sanitary expenditure is incurred.

588. During the year a draft bill to empower Municipalities and Local Fund Circles to make vaccination compulsory was prepared in communication with the Advocate-General, and the same submitted for the views of Municipal and Local Fund Boards. The opinions of local authorities on the proposed bill had not been received up to the end of the year.

589. In paragraph 599 of the Annual Sanitary Report for 1878 the system of employing the Deputy Inspectors of Vaccination as Sanitary Inspectors was described. Much attention has been given during the past year to the improvement of the machinery for village inspection. The Deputy Inspectors were submitted to a test of their elementary knowledge of hygiene in November, and some of them did fairly well, while others showed that they knew little or nothing of the subject. A class of officers with some professional training is much to be desired for employment as Deputy Inspectors of Vaccination and Sanitary Inspectors.

590. The Government of Madras has had under consideration the question of affording more assistance to the Sanitary Commissioner to enable him to undertake more thoroughly the sanitary and vaccine inspection of Local Fund Circles and Municipalities, and in G.O., No. 1,537, of 21st October, it was suggested that a contribution of one half per cent. of local revenues would enable the Government to employ three extra Deputy Sanitary Commissioners with this object. The Sanitary Commissioner and Board of Revenue were directed to draw up a scheme for the approval of Government.

591. After much consideration and consultation on this subject, the Board of Revenue and Sanitary Commissioner were of opinion that instead of giving four or five revenue districts to one inspecting officer, it would be a more preferable and convenient arrangement if a revenue district was taken as the unit of medical and sanitary administration, and the civil or district medical officer, with such additional help as might be necessary, made responsible for inspection of minor hospitals, vaccination, and sanitary work. A scheme in accordance with these views has been prepared, and is now before Government. The cost of such inspecting agency as may be eventually decided on will be borne almost entirely by Local Fund and Municipal Boards.—(W.R.C.)

M. C. FURNELL, M.D., F.R.C.S.,
Sanitary Commissioner for Madras.

MADRAS,
8th June 1880.

APPENDIX I.

ANNUAL REPORT OF VACCINATION FOR THE YEAR 1879.

APPENDIX I.

ANNUAL REPORT OF VACCINATION FOR THE YEAR 1879.

I have the honor to forward the Annual Report of Vaccination for the year 1879. The total number of persons operated on in the year under report was 469,744, and this is 52,016 less than in 1878. The decrease occurred in North Arcot, South Arcot, Cuddapah, Bellary, Salem, Coimbatore, Malabar, South Canara, Nellore, Kistna, and Godávari Districts; and the causes of such were, 1st, there being no famine camps or nurseries open in 1879, whereas in 1878 there were; 2nd, to the large number of temporary vaccinators employed in 1878 when compared with those during the past year: in 1879 there were only 17 temporary vaccinators employed, whereas in 1878 there were 40; 3rd, in some districts during the past year fever was very prevalent and many of the vaccinators reported sick; and, 4th to the minimum numbers of cases which first and second class vaccinators have been required to vaccinate monthly, viz., 50 and 30 respectively, being too small.

2. The numbers of persons vaccinated in 1876-77, 1877-78, and 1878 are exceptional, for during those years there were famine camps and nurseries open which gave great opportunities of vaccinating a large number of cases. If the work of the last year, however, is compared with that for the years previous to 1876-77, there is found an increase in 1879 of the primary vaccination as will be seen from a reference to the figures in the margin.

1873-74	365,399
1874-75	427,767
1875-76	383,067
1876-77	478,727
1877-78	776,705
1878	515,840
1879	462,766

3. The number of persons successfully vaccinated in 1879 was 413,902, and this gives a percentage of 88·11 of success against 85·51 in the previous year.

4. The numbers of persons vaccinated in each district for 1878 and 1879 are seen in the following table:—

Districts.	Number vaccinated for 1878.	Number vaccinated for 1879.	Increase.	Decrease.
Bellary District	12,582	11,318	...	1,264
Chingleput do.	9,987	13,150	3,163	...
Coimbatore do.	46,151	35,860	...	10,291
Cuddapah do.	11,430	8,246	...	3,184
Ganjam do.	15,158	20,571	5,413	...
Godávari do.	28,087	17,223	...	10,864
Kistna do.	24,595	12,103	...	12,492
Kurnool do.	3,335	3,865	530	...
Madura do.	37,686	37,851	165	...
Malabar do.	14,131	13,005	...	1,126
Nellore do.	14,846	10,374	...	4,472
Nílgiri do.	2,334	2,107	...	227
North Arcot do.	35,483	15,229	...	20,254
Salem do.	29,140	18,717	...	10,423
South Arcot do.	16,198	15,671	...	527
South Canara do.	13,205	12,923	...	282
Tanjore do.	33,227	56,063	22,836	...
Tinnevelly do.	29,074	30,608	1,534	...
Trichinopoly do.	14,760	16,032	1,272	...
Vizagapatam do.	25,462	28,291	2,829	...

5. It will be observed that in the past year the largest number of cases, viz., 56,063, was vaccinated in the Tanjore District, while the smallest number, viz., 2,107, was done in the Nílgiri District, where only two vaccinators are employed.

6. Among Municipalities, excluding Madras, the largest number (viz., 5,301,) vaccinated was in Kumbakónam, and the smallest number (viz., 83) in Anantapur. The large number vaccinated in Kumbakónum Municipality was chiefly due to the exertions of the Vice-President.

7. The following table shows the number of persons primarily vaccinated and the percentage of success for the last seven years : –

—	Years ended 31st March					Years ended 31st December	
	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878.	1879.
Number of persons primarily vaccinated	365,399	427,767	383,067	478,727	776,705	515,840	462,766
Do. do. successfully ...	329,598	372,048	319,129	406,398	648,097	442,689	410,534
Percentage of success ...	90·69	86·97	83·31	84·89	83·44	85·81	88·71

Under primary vaccination the percentage of success is higher than that in the five previous years, showing that the work was more carefully performed. The large number of unknown cases in the three previous years lowered the percentage of success.

8. The number of persons revaccinated amounted to 6,978, or 1,058 above the number in 1878. Success was obtained in 3,368 of the cases vaccinated. The table below gives the number of persons revaccinated for the last seven years and the percentage of success :—

—	Years ended 31st March					Years ended 31st December	
	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878.	1879.
Number of persons revaccinated.	2,046	395	843	4,465	11,025	5,920	6,978
Do. do. successfully ...	1,480	289	565	3,176	7,210	3,510	3,368
Percentage of success ...	72·33	73·16	67·02	71·13	65·39	59·29	48·26

9. In the Districts and Municipal Towns there were 244,148 males and 198,835 females vaccinated.

10. In all the Districts there were more males than females vaccinated, as will be seen from the subjoined table :—

Districts.	Number Vaccinated.		Excess of Males.	Excess of Females.
	Males.	Females.		
Bellary District	5,977	5,341	636	...
Chingleput do.	7,350	5,800	1,550	...
Coimbatore do.	18,760	17,100	1,660	...
Cuddapah do.	4,892	3,354	1,538	...
Ganjam do.	11,404	9,167	2,237	...
Godávari do.	9,808	7,415	2,393	...
Kistna do.	6,648	5,455	1,193	...
Kurnool do.	2,243	1,622	621	...
Madura do.	19,697	18,154	1,543	...
Malabar do.	10,356	2,649	7,707	...

Districts.	Number vaccinated.		Excess of Males.	Excess of Females.
	Males.	Females.		
Nellore District	5,496	4,878	618	...
Nilgirí do.	1,196	893	303	...
North Arcot do.	8,478	6,751	1,727	...
Salem do.	9,678	9,039	639	...
South Arcot do.	8,449	7,222	1,227	...
South Canara do.	7,677	5,246	2,431	...
Tanjore do.	29,970	26,093	3,877	...
Tinnevelly do.	16,732	13,876	2,856	...
Trichinopoly do.	8,461	7,571	890	...
Vizagapatam do.	15,009	13,282	1,727	...

In the Municipalities 35,867 males and 27,927 females were vaccinated.

11. The undermentioned tabular statement shows the work performed by each establishment during 1878 and 1879 :—

—	Total Number vaccinated.		Increase.	Decrease.	Net Decrease.
	1878.	1879.			
Vaccine Circles and Districts	411,021	375,405	...	35,616	...
Private Vaccinators	160	171	11	...	...
Private Estate Vaccinators	5,690	3,631	...	2,059	...
Medical Subordinates	21,386	21,315	...	71	...
Municipalities (including Madras) ...	83,106	64,029	...	19,077	...
Civil Dispensaries	397	5,193	4,796	...	...
Railway Apothecaries	...	...	...	...	...
Total ...	521,760	469,744	4,807	56,823	52,016

12. Considerable progress is observable in the successful vaccination of infants for 1879 when compared with that for 1878. In 1879 there were 49,667 children successfully vaccinated under one year of age against 44,428 in 1878.

The district in which the largest number, viz., 6,712, of infants vaccinated was in Madura, and the smallest number, viz., 48 in Malabar.

Among Municipalities (excluding Madras) the largest number, viz., 1,033, of children vaccinated under one year of age was in Kumbakónam, and the smallest, viz., 4, in Pálghat.

The young are but badly protected, for in 1879 only 49,667 cases under one year of age were vaccinated; while the births for the same period were 477,762.

13. The cost of each successful case on the whole was 6 annas and 1 pie, or 7 pies more than in the previous year, and this was owing to the fewer number of persons operated on by the vaccinators. The cost of each successful case was higher in all the districts except Chingleput, Trichinopoly, Tanjore, Tinnevelly, Kurnool, and Vizagapatam.

Of the districts the cost of each successful case was highest in Cuddapah, viz., Rs. 1-1-1, and the lowest in Tanjore, viz., Annas 1-10.

Among Municipalities the cost of each successful operation was highest in Ongole, viz., Rs. 1-4-3, and the lowest in Kumbakónam, viz., Annas 1-6.

14. The staff of the vaccine establishment for the past year was as follows :—

1 Inspector of Vaccination and Deputy Sanitary Commissioner.
31 Deputy Inspectors first class.
9 do. second do.
211 Vaccinators first class.
350 do. second do.
115 Probationers.
26 Peons.

15. Temporary Vaccinators were employed in the Coimbatore, Tinnevelly, Trichinopoly, Tanjore, Malábar, and Vizagapatam Districts.

16. The following shows the total cost of the department and the sources from which the charges on account of vaccination were met during 1879 :—

	RS.	A.	P.
Imperial Funds	...		
Provincial do.	19,101	7	4
Local do.	1,13,769	15	10
Municipal do.	15,514	3	1
Contributions from Zemindars and other estate owners	1,411	6	0
Total ...	1,49,797	0	3

17. In regard to the work of the Deputy Inspectors (with some exceptions) a favorable report of their qualifications and conduct cannot be made. During the past year three First-class and one Second-class Deputy Inspectors were dismissed as they were untrustworthy and unfit for the posts they held.

Four First-class Deputy Inspectors were reduced to Second Class and two First-class Deputy Inspectors degraded to Vaccinators for very unsatisfactory work.

18. It is very difficult to get good men for the posts of Deputy Inspectors, as not only are the duties onerous, trying, and distasteful to the majority of natives, but they cannot rise beyond 70 rupees per month. There are very few vaccinators who are fit for promotion, and I therefore would suggest that Hospital Assistants (as formerly was the case) be allowed by the Medical Department to take up the posts of Deputy Inspectors of Vaccination when vacancies occur.

19. In many circles and districts, viz., Chingleput, Trichinopoly, Kurnool, Tanjore, Negapatam, Dindigul, Shermadevi, Chittoor, Vellore, Salem, Oossoor, North Coimbatore, Tellicherry, No. I South Canara, No. II South Canara, Cuddapah, Madanapalle, Gooty, Nellore, Ongole, Masulipatam, Guntúr, Cocanada, Ellore, Vizianagrum, Chitterpore, and Chicacole, travelling batta is granted to Deputy Inspectors, and in the others it is withheld.

20. Travelling batta is granted in some districts to vaccinators, and it would be better, I think, to give no travelling batta, but to allow every vaccinator two annas for every successful case done over 100 in a month. This would be an inducement for vaccinators to do more work.

21. The circles and districts in which batta was given to mothers for allowing lymph to be extracted from their children's arms were Chingleput, Kurnool, Trichinopoly, Cuddalore, Vriddháchalam, Tanjore, Negapatam, Dindigul, Tinnevelly, Shermadevi, Chittoor, North Coimbatore, Calicut, No. II South Canara, Cuddapah, Gooty, Nellore, Masulipatam, Ellore, Chetterpore, and Hill Tracts of Ganjam.

22. The amount expended for this purpose in 1879 was Rupees 5,011-8-5. I think this batta should be allowed in all districts, as the most successful kind of vaccination is when lymph fresh from the arm is used. Nearly all the unsuccessful cases are those vaccinated with preserved lymph.

23. During the year I visited the following circles :—Madanapalle (twice), Cuddapah, Bellary, Penukonda, Gooty, Chittoor (twice), Vellore (twice), Calicut (twice), Tellicherry, Cuddalore, Vriddháchalam, Tanjore, Negapatam, Madura, Dindigul, Tinnevelly, Shermadevi, and Chingleput, Kurnool, and Nílgiri Districts.

24. Small-pox prevailed in 1879 in the following districts, viz., Godávari, Kistna, Chingleput, North Arcot, Trichinopoly, Tinnevelly, Coimbatore, South Canara, and Malabar.

25. Whenever small-pox appeared temporary hands were employed to go to the infected villages and vaccinate all the unprotected.

26. The following table shows the number of deaths from small-pox for the past seven years and the total number vaccinated :—

Years.	Total vaccinated.	Total Number of Deaths.	Number of Deaths from Small-pox.
1873-74	367,445	509,436	54,760
1874-75	428,162	530,821	36,777
1875-76	383,910	670,220	24,719
1876-77	483,192	840,017	36,524
1877-78	787,730	1,493,423	90,255
1878	521,760	810,921	56,360
1879	469,744	549,390	17,840

27. Speaking generally the lymph was good in all the circles and districts.

28. About the end of the year supplies of animal lymph from Dr. Warlemont of Brussels were received, but they proved unsuccessful both on human subjects and heifers.

29. In December animal vaccination was tried but without any successful issue, and it was only in February 1880 that it proved successful, and since then it has been successfully carried on.

30. Applications were received from the following Municipalities, viz., Cuddapah, Rajahmundry, and Adoni for vaccinators.

31. Probationers are employed by all the Local Fund Boards with the exception of Bellary, Penukonda, Chicacole, Calicut, Tellicherry, and Negapatam.

It is very advisable that all Local Fund Boards employ a few probationers to learn the work of vaccination, so that when qualified they may act for vaccinators on leave and also be available to fill up any vacancies that occur.

32. The number of private practitioners is yearly decreasing. In 1878 returns were received from two private vaccinators, but last year from only one in the Ongole Circle. For last year 171 cases were done by this man, and, when compared with the work of both the vaccinators for 1878, there is an increase of 11 cases in 1879.

33. Fines to the extent of Rupees 300 were recovered from Deputy Inspectors for laziness and inattention to orders.

BELLARY DISTRICT—BELLARY CIRCLE.

Establishment.

1 First-class Deputy Inspector—P. Kotilingam.
2 do. Vaccinators.
11 Second-class Vaccinators.
Area—4,581 square miles.
Population—595,172.

The Deputy Inspector reports that for the past year 5,765 cases were vaccinated in this circle with an average percentage of 88·71 of success, and the results in 238 cases were unknown. On comparing the total vaccinated for the past year with that for 1878, there is found a decrease of 532 operations for 1879, and this was due to some vaccinators having been on leave and also to fever having been prevalent among the people. Second-class Vaccinator Adiappa vaccinated the largest number of cases, viz., 1,343. Vaccinator Coopoosawmy was dismissed from the service for falsifying returns, and two Vaccinators were sent to Gooty Circle on promotion. Obstructions to the spread of vaccination still exist in the circle. It is always hard to carry on arm-to-arm vaccination as mothers will not allow lymph to be extracted from their children's arms, and the Deputy Inspector thinks that, if batta were given to mothers, this difficulty would be overcome. If

the Revenue officials gave the vaccinators more assistance, the Deputy Inspector states that much more work in regard to vaccination could be done, but that an Act making vaccination compulsory is required.

The Deputy Inspector received no reports of small-pox having broken out during the year; no travelling batta is given to the Deputy Inspector, and he is not allowed a peon. 1,806 infants under one year of age were vaccinated (comprising 861 males and 945 females), and there is an increase of 99 over that for 1878. The lymph in use was good. The conduct of the staff, with the exception of a few vaccinators, was good. The cost of each successful case was 11 annas and 1 pie, and it was more than that for 1878, which was 9 annas and 6 pies.

On the 23rd February 1879 I left Alúr and arrived at Bellary on the 24th, where I remained till the 27th. At Bellary there are three Municipal Vaccinators, viz.:—

First-class Vaccinatrix Miss C. Crene.
Second-class Vaccinator Syed Ebrahim.
Second-class Vaccinator P. Venkatasawmy.

For 1878 each vaccinator did on an average 453 cases, being at the rate of 38 each per month. I think that two vaccinators would be sufficient. One anna is allowed to the vaccinator for each case of successful vaccination. The children vaccinated receive nothing unless lymph is taken, when two annas are given.

Vaccination in Bellary is backward, and in some schools in Brucepettah I found out of 51 pupils only 16 had vaccination marks, 12 had small-pox marks, and 23 were unprotected.

In Brucepettah I saw some lymph subjects which had been vaccinated by First-class Vaccinatrix Miss Crene and Second-class Vaccinator P. Venkatasawmy. The cases vaccinated by Miss Crene had good vesicles, but the lymph in the cases done by P. Venkatasawmy did not appear good. The old cases I saw had not well-marked cicatrices.

In Cowl Bazaar I also saw some lymph subjects which had been vaccinated by Miss Crene and Second-class Vaccinator Syed Ebrahim. In these cases the lymph appeared good, but the old cases in Cowl Bazaar had not well-marked cicatrices. In one school in Cowl Bazaar out of 37 children only 6 were vaccinated, 15 had small-pox marks, and 16 were unprotected.

I examined the registers of the three Municipal Vaccinators. They were carelessly prepared and the columns "Initials of Deputy Inspector" and "Date of Inspection" were blank.

I also examined the registers and instruments belonging to First-class Vaccinator Syed Hussain and Second-class Vaccinator Adiappa, both of the Bellary Taluk. Their registers were carelessly prepared and no entries had been made in the columns "Initials of Deputy Inspector" and "Date of Inspection." In the register of Syed Hussain there were many mistakes. This man can only write Hindustani, and, as the Deputy Inspector does not know it, the Vaccinator has to get his son to write it in Telugu. The tube lymph which they had was bad, and the lymph bottle belonging to First-class Vaccinator Syed Hussain was broken.

The records, &c., belonging to the Deputy Inspector of the Bellary Circle were written up to date and well kept. This Deputy Inspector is slow, but he tries to do his best.

GOOTY CIRCLE.

Establishment.

1 Second-class Deputy Inspector—R. Henricus.
3 First-class Vaccinators.
3 Second-class do.
2 Probationary do.
Area—3,720 square miles.
Population—609,982.

The total number vaccinated during the past year was 3,292 against 4,475 done in 1878, thus showing a decrease of 1,183 operations, and this is accounted for by the incompleteness of the staff. The Vaccinator of Adoni Taluk was dismissed in February 1879 and his place was not filled up till 6th June. The Vaccinator of Alúr Taluk died in January 1879, and his post was vacant till September. The vaccinator of Gooty Taluk was suspended for a month for having done short work, and subsequently he was reduced to Second Class for unsatisfactory work. The largest number of cases vaccinated, viz., 772, was done by First-class Vaccinator P. Ramanah. The number of vaccinations under one year of age was 906 (consisting of 461 males and 445 females), and this is 616 less than was done for 1878. Obstructions to the spread of vaccination still exist in some parts of the circle, and, owing to the prevalence of fever, many refused to be vaccinated. There is great difficulty experienced in carrying on arm-to-arm vaccination, as the parents will not allow lymph to be taken from their children's arms. No reports were received of small-pox having broken out. The Deputy Inspector states that the present staff is inadequate to meet the wants of the circle, and recommends that two Vaccinators, one First Class and one Second Class, be appointed to each taluk. Only four annas was spent for batta to mothers for supplying lymph. Two vaccination certificates were granted. The cost of each successful case was Annas 9-11, being 1 anna and 11 pies more than that for 1878.

On the 20th February 1879 I went on to Gooty, and on the 21st to Adoni. At Adoni First-class Municipal Vaccinator G. Numbuliah does about 50 cases a month. There were, however, very few children about the town with well-marked vaccination cicatrices. I saw four lymph subjects and the lymph in use appeared good. I visited two schools and found out of 112 children that 37 had been vaccinated, 25 had small-pox marks, and 50 were unprotected.

This vaccinator's register was not well kept; the entries in column number of successful vesicles were wrong. His instruments were dirty and he had no tube lymph.

On the 22nd I left Adoni and went on to Alúr; the people in the village did not appear to object to vaccination and most of the children were vaccinated in the relief camps. The old cases had well-marked cicatrices.

There is no Municipal Vaccinator at Gooty, but First-class Vaccinator P. Sashachellam Naidu of the Gooty Taluk vaccinates the children in Gooty. I saw two lymph subjects with good vesicles, but the old cases had not well-marked cicatrices. In one school out of 32 children I found 12 had vaccination marks, 3 small-pox marks, and 17 unprotected.

The register and instruments belonging to Vaccinator P. Sashachellum Naidu were well kept, but he had only two tubes of lymph. At Gooty I examined the records, &c., of the Deputy Inspector of the Gooty Circle. They were written up to date and well kept. This Deputy Inspector is an old man and cannot travel about much. He does not know English at all. As he seems unfit for further service, I have sent him to the Civil Surgeon, Bellary, for his opinion as to whether he is so or not.

On the evening of 1st March I left Gooty and arrived at Anantapur on the morning of the 2nd.

There has been no Municipal Vaccinator at Anantapur since January 1878, but it is proposed now to employ a man who will be Municipal Vaccinator as well as Registrar of Births and Deaths. At present First-class Vaccinator P. Ramanah Naidu of Anantapur Taluk vaccinates the people in Anantapur. Vaccination in Anantapur is backward although First-class Vaccinator P. Ramanah Naidu appears to be an energetic man. There was no lymph subjects in Anantapur, but I saw 14 cases which had been vaccinated in January 1879, and the cicatrices in all were well marked. I visited two schools and found that out of 42 pupils 17 had been vaccinated, 7 had marks of small-pox, and 18 were unprotected.

I examined the register and instruments belonging to First-class Vaccinator P. Ramanah Naidu and found them all well kept.

On the 4th March I left Anantapur and arrived on the 5th at Penukonda, where I remained till the 8th.

At Raptod and Ramanarpully, two villages on the road between Anantapur and Penukonda, I saw some lymph subjects which had been vaccinated by First-class Vaccinator P. Ramanah Naidu. In these cases the lymph was good and each had six vesicles.

PENUKONDA CIRCLE.

ESTABLISHMENT.

1 Second-class Deputy Inspector—T. M. Veerappa Pillay.
3 First-class Vaccinators.
1 Second-class Vaccinator.
Area—2,881 square miles.
Population—376,715.

The circle comprises four taluks and the number of cases vaccinated during the year was 2,261, giving an average of 565 cases per annum, or 47 monthly, to each vaccinator. On comparing the total vaccinated for the past year with that for 1878 there is found an increase of 451 cases for 1879. The increase would have been greater had not many of the vaccinators been on the sick list. Only two vaccinators worked throughout the year; the third was on four months' sick leave, and the fourth was on the sick list from 14th September up to the end of the year. The prevalence of fever, especially in the Madakasira and Penukonda Taluks, retarded the progress of vaccination, and it frequently occurred that vaccinators visited villages and on account of fever could not get a single case to vaccinate. 564 infants under one year of age were vaccinated, composing 318 males and 246 females, and of these 488 were successful. The percentage of success of the total vaccinated is 86·52. 73 revaccinations were conducted, and 33 of these were successful. First-class Vaccinator Meera Sahib did the largest number of cases, viz., 863, among the vaccinators. Objections to the spread of vaccination still prevail among the uneducated classes. The Deputy Inspector states that reports on the outbreak of small-pox are not sent to him though requested, and the assistance of the Revenue authorities is sought for in carrying on the work of vaccination. The lymph in use was good, but the people in general object to vaccine lymph being extracted from the arms of their children, and, if they know that a vaccinator is coming for this purpose, they will either apply something to destroy the vesicles or hide the children away. The conduct of the staff was good. The following suggestions are made by the Deputy Inspector for the effectual spread of vaccination in the circle:—

(1.) A circular on the benefits of vaccination should be printed in the vernaculars and supplied to village heads, so that it may be pasted in conspicuous parts of villages where people collect for fairs or festivals with a view to their learning the advantages of vaccination.

(2.) The village authorities should submit a monthly list showing the number of subjects vaccinated in their respective villages with an explanation for the non-performance of work if no cases are vaccinated.

(3.) That the Tahsildars, Sub-Magistrates, and Revenue Inspectors should take an interest in promoting vaccination in their divisions or taluks.

The Deputy Inspector states that no travelling batta either to vaccinators or himself is allowed. The want of a peon is felt in carrying out the work. The cost of each successful case is 9 annas and 5 pies, being less than for 1878, which was 11 annas and 11 pies.

On the 4th March I left Anantapur and arrived on the 5th at Penukonda, where I remained till the 8th.

Second-class Deputy Inspector O. Condasawmy Reddi of Penukonda never turned up. I had written to him to meet me, but when I got to Penukonda he

was not there. On inquiry at his house I found he was at Hindupur, a place 22 miles off, and at once sent a messenger with a letter ordering the Deputy Inspector to come into Penukonda at once. The messenger gave the letter to the Deputy Inspector on the morning of the 6th at Hindupur and returned to Penukonda that same evening with his answer. I waited till the afternoon after the 8th, and, as the Deputy Inspector did not appear, I left for Kadiri. The Deputy Inspector had been at Hindupur from the 20th February and left for Penukonda on the 7th. He must have waited on the road somewhere till he heard that I left Penukonda.

This Deputy Inspector was reduced in June last from First-class to Second-class Deputy Inspector, but since then he has shown no signs of improvement and been most careless in his work and inattentive to orders. I have suspended him and called for an explantion why he did not meet me at Penukonda and also why his returns have not been sent.

While at Penukonda I examined the register and instruments belonging to First-class Vaccinator Meera Sahib of the Penukonda Taluk. His instruments were in good order, but his register was most carelessly kept and the column "Signature of Deputy Inspector" was blank. This vaccinator is an old man and not active. He only knows Hindustani and his son writes his register in Telugu for him. I saw in Penukonda 30 old cases of vaccination which had been done by this vaccinator, but only 2 or 3 of these had 6 well-marked cicatrices. This vaccinator had no tube lymph; only a few scabs and glass lymph. He rarely vaccinates from arm to arm.

CHINGLEPUT DISTRICT.

ESTABLISHMENT.

1 First-class Deputy Inspector—C. Aroomooga Chetty.
6 First-class Vaccinators.
7 Second-class Vaccinators.
2 Probationary Vaccinators.
Area—2,619 square miles.
Population—900,857.

The total numbers vaccinated during the past and previous years are as follow:—

1878	9,987
1879	13,150

The comparison of the above figures shows that for 1879 there was an increase of 3,163 cases over that for 1878, and this was due to the vaccinators having worked well during the last few months of the year. Second-class Vaccinator G. Veeraragavaloo Reddy did the largest number of operations, viz., 1,608, for the year. A few changes among the vaccinators occurred, viz.: First-class Vaccinator Rungasawmy was reduced to Second Class for continual negligence and short work. Second-class Vaccinator Aroonachella Naick was suspended for six months for having made wrong entries in his register, and P. Ramasawmy was dismissed for leaving the district without leave. A few of the vaccinators were often censured and fined for short work. There is not much objection to the spread of vaccination in this district except in a few of the interior parts. The President of the Local Fund Board, Mr. J. F. Price, takes personal interest in the extension of vaccination, and the Deputy Inspector acknowledges with thanks the interest evinced by the President. Small-pox prevailed in some villages of the Madurántakam, Chingleput, and Saidápet Taluks, and the Vaccinators, on reports being received of the appearance of small-pox, were immediately sent out to work in the infected parts. Reports on the appearance of small-pox in any village were received late, but, since the receipt of Order, No. 3,167, dated 14th November 1879, from the Board of Revenue, every village headman sends a report immediately small-pox appears. The number of cases vaccinated under one year of age was 1,079; of these 542 were males and

537 females. For 1878, 817 cases were vaccinated under one year of age, so that for 1879 there has been an increase of 262 cases. First-class Vaccinator Chidumbrum Pillay, No. 306, vaccinated the largest number of infants, viz., 174. The Local Fund Board of the Chingleput Circle is to be amalgamated with the Saidápet Local Fund Board from the next official year, and an allotment was made for the entertainment of a Second-class Deputy Inspector to the Chingleput Circle. The President, however, has obtained sanction from the Board of Revenue to employ, instead of a Second-class Deputy Inspector, 5 additional Second-class Vaccinators to increase the staff to 18 vaccinators for the district, and there will then be 3 vaccinators to each taluk. The Deputy Inspector's travelling allowance has been raised from 12 annas to 1 rupee per diem and a peon has been allowed to him. The peon is also allowed travelling batta. Every vaccinator also was allowed 2 annas for each successful case he did over 100 in a month. Rupees 138-3-8 were spent on account of batta to mothers, &c., for allowing lymph to be extracted from their children's arms. The lymph in use was good. Twenty-five vaccination certificates were granted to men during the year. The conduct of the vaccinators (with the exception of a few) was good. There are two probationers working in the district, one at the Civil Dispensary of Chingleput and another at Conjeeveram. The cost of each successful case for 1879 was 4 annas and 6 pies against 6 annas for 1878.

On the 31st July 1879 I left Madras and went on to Chingleput, where I remained till the 4th of August.

Vaccination in Chingleput is fairly well carried on. Second-class Vaccinator Chidumbrum Pillay of the Chingleput Division showed me three lymph subjects he had done, but the lymph then in use did not appear good. This man had not good lymph when Dr. Cornish visited Chingleput in January. I saw a good many old cases this vaccinator had done in the town, and many of these, however, had well marked cicatrices. As most of the schools were closed when I was at Chingleput, I only saw two and found that out of 59 pupils 27 had been vaccinated, 24 were unprotected, and 8 had small-pox marks. Second-class Vaccinator Chidumbrum Pillay has done this year on an average 72 per mensem. He does not appear a very smart man. His instruments were clean, but register was not correctly kept. A pupil vaccinator has been attached to the Civil Hospital to learn vaccination, but, as it is very difficult to get children there, the Civil Surgeon has recommended that one anna be allowed to every child brought to the hospital for vaccination.

I visited three villages, viz., Pattrapaukum, Koonamakum, and Ammanambakum, situated a few miles from Chingleput, and saw 25 lymph cases which had been done by Second-class Vaccinator C. Govindoo Naiker of Tirupórúr Division, Chingleput Taluk. In a few cases the lymph did not appear good, but most had good vesicles and six in number. This vaccinator has a little knowledge of English and vaccinates on an average 62 cases a month. His register was not very carefully kept, and his needles were dirty. He had some lymph between glass plates, but no tubes.

On the 5th August I left Chingleput and went on to Karunguli, where I examined some work which had been done by First-class Vaccinator S. Mohomed Furreed Sahib of the Madurántakam Division. At Karunguli I saw 10 cases and at Malapady 4 cases which had been vaccinated in February 1879; all the cases had well-marked cicatrices and six in number. In four schools which I visited with a total of 180 pupils I found the following results, viz.:—

—	Vaccinated.	Unprotected.	Small-pox marks.
One Pial School, Karunguli	5	8	3
Two Pial Schools, Madurántakam	14	22	9
One Mission School	49	48	22
Total ...	68	78	34

Most of the young children, however, that I saw in the bazaars were unprotected. First-class Vaccinator S. Mohomed Furreed Sahib, who was only on 1st August

promoted from Second Class to First Class, seems an active man and vaccinates the largest number of cases of any vaccinator in the district. His register was neatly kept and his instruments were clean. He had no lymph tube, but lymph between glass plates.

On the 6th August I went on to Acharapákam and there saw 19 cases which had been done in May and June by Vaccinator S. Mohomed Furreed Sahib. These cases had well-marked cicatrices and six in number. In two sohools I found 9 children had been vaccinated, 4 were unprotected, and 2 had marks of small-pox.

I also saw some cases in villages on the road between Madurántakam and Acharapákam and all had well-marked cicatrices.

While in the Chingleput District I examined the records, &c., belonging to First-class Deputy Inspector Aroomooga Chetty of the Chingleput District. They were neatly kept and written up to date. This man has only lately joined the Chingleput District and seems to be working well.

On the 7th August I left Acharapákam and went on to Cuddalore Circle.

COIMBATORE DISTRICT—NORTH COIMBATORE CIRCLE.

Establishment.

1 First-class Deputy Inspector—Syed Abdool Azis.
2 Do. Vaccinators.
4 Second-class Vaccinators.
10 Probationary Vaccinators.
1 Peon.
2 Temporary Vaccinators.
Area—3,400 square miles.
Population—795,610.

Deputy Inspector of Vaccination Syed Abdool Azis of this circle was granted furlough for one year, and First-class Vaccinator T. Balakristnen of the Negapatam Circle was appointed to act. He reports that for the past year 19,026 cases were vaccinated with a percentage of 93·11 of success, and the results in 739 cases were not ascertained. On comparing the total vaccinated for the past year with that for 1878 there is found for 1879 a decrease of 5,660 cases, and this is due, the Deputy Inspector states, to the great difficulty there is found in getting children for vaccination, as in many villages which suffered from the late famine there are still few children to be found.

In reviewing the work of the Vaccinators, First-class Vaccinator P. Valoo Moodaly is found to have vaccinated the highest number, viz., 1,625, among the staff, and First-class Vaccinator Mohomed Abdoollah the largest number, viz., 643 of children under one year of age. Of the total for the past year, 2,430 cases were vaccinated by the two temporary Vaccinators, consisting of 1,268 males and 1,162 females with a percentage of 87·57 of success. No objections seem to exist in regard to vaccination, but a great difficulty is experienced in carrying on arm-to-arm vaccination, as people will not allow lymph to be taken from their children's arms. Great assistance was found in getting children vaccinated by some of the Tahsildars allowing a peon to go round with the Vaccinator, but now this is discontinued, and the want is felt in places where the Monegars take no interest in vaccination. The deaths from small-pox for 1879 were 184 against 1,000 in 1878. The Deputy Inspector states that it is difficult for Vaccinators to reach the fixed numbers of cases, viz., 100 for First and Second Classes and 112 for probationers, as in almost in all the villages the effects of the famine are still felt. The probationary Vaccinators were paid at the rate of one anna per case, and the Deputy Inspector recommends that the fixed number to be done by Vaccinators should for the present be reduced and the pay of probationers increased. Each taluk should also have one First-class Vaccinator. The total number of children vaccinated under one year of age was 3,728 (comprising 1,961 males and 1,767 females with a success

(of 93·99 per cent.) against 2,746 for 1878. Twenty-four vaccination certificates were given to candidates who appeared for examinations. The conduct of Vaccinators was good and the lymph in use excellent. The cost of each successful case was 3 annas and 1 pie, being more than that for 1878, which was annas 2 and pies 2.

SOUTH COIMBATORE CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—S. Moonisawmy Naidu.
2 Do. Vaccinators.
3 Second-class do.
9 Probationary do.
2 Temporary Second-class Vaccinators.
1 Peon.
Area—2,891 square miles.
Population—922,156.

In this circle the Deputy Inspector reports that for 1879 16,834 cases were vaccinated with a success of 96·48 per cent., and the results in 229 cases were not ascertained. On comparing this total with that for 1878 there is found a decrease of 4,631 cases, and this is due to the following reasons :—1st, the great prevalence of fever in the circle; 2nd, the absence of many of the Vaccinators on sick and privilege leave; and, 3rd, to the difficulty in getting men in the place of two probationers who resigned, as no trained hands were available; and, lastly, to the small number of children now found in villages. The Deputy Inspector states that the fixed number of cases, viz., 112, demanded from probationary Vaccinators is too high owing to effect of the late famine. These probationers are paid at the rate of one anna per case, and it is with difficulty they can make Rupees 5 per month; two of the probationers resigned and the others are discontented. The Deputy Inspector suggests that one First and one Second-class Vaccinators be appointed to each taluk, and two probationers to learn the work so as to take up the places of any absentees. The total number vaccinated under one year of age was 3,009 (consisting of 2,931 successful, 40 unsuccessful, and 38 unknown results) against 3,204 of 1878. At present the Vaccinators are unable to know the number of children born in a village, and it would be well if Curnams were required to produce a statement of births since the Vaccinator's last visit. Small-pox was reported to be prevalent in a village of the Palladam Taluk, and measures were at once taken to vaccinate all the unprotected. The Deputy Inspector states that reports of the prevalence of small-pox are not sent immediately the disease appears. There are not many obstructions to the spread of vaccination in this circle, but a difficulty is experienced in carrying on arm-to-arm vaccination, as mothers will not allow lymph to be taken from the arms of their children. Rupees 5-4-0 were spent on account of batta to mothers for supplying lymph. The character of the staff with the exception of two probationers was good, and the lymph in use effective. Sixteen vaccination certificates were granted to candidates who went up to be examined. The cost of each successful case was Annas 2 and Pies 7 against Annas 2 and Pies 3 for 1878.

CUDDAPAH DISTRICT—CUDDAPAH CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—Meer Muzzer Ally.
7 Do. Vaccinators.
7 Second-class do.
3 Pupil Vaccinators.
1 Peon.
Area—4,620 square miles.
Population—784,750.

The total number vaccinated in this circle for 1879 was 5,087 with an average percentage of 77·43 of success, and the results in 532 cases were not ascertained. The numbers vaccinated during 1878 and the past year are as follows:—

1879	5,087
1878	5,914

showing a decrease of 827 cases for 1879, and this the Deputy Inspector attributes to fever having been very prevalent in the circle and the obstinacy of the people in not allowing any of their children to be vaccinated. There is great difficulty experienced in getting subjects for vaccination, and when any are vaccinated the mothers will not allow the Vaccinators to see them, as they are afraid they will wish to extract lymph, and in consequence of this many Vaccinators use indifferent or bad lymph simply that they may do the minimum number of cases required. Deputy Inspector C. Theroovengada Moodaly of this circle was reduced to second grade and transferred to the Vizianagrum Circle, as his conduct was not satisfactory. The present Deputy Inspector joined the circle in November 1879. The Vaccinators of this circle are lazy and do not take an active interest in the performance of their work. First-class Vaccinator M. V. Chinnasawmy, No. 1,134, vaccinated the largest number of cases, viz., 562. Twenty-five deaths from small-pox took place during 1879. The Deputy Inspector recommends that an Act be introduced making vaccination compulsory, as it is greatly required in this district. The number of infants vaccinated under one year of age was 263 (of these 117 were males and 146 females) against 241 for 1878. Forty-seven vaccination certificates were granted to candidates who appeared for examinations. Only one rupee was spent on batta to mothers for supplying lymph. The conduct of the staff was on the whole unsatisfactory. The cost of each successful case was Rupees 1-0-0$\frac{3}{8}$ against Annas 10 and Pies 11 of 1878.

On the 29th January 1879 I left Madras and arrived at Cuddapah on the 30th.

Vaccination at Cuddapah is backward, but the people have great objections to it, and will not allow Vaccinators near them. The Municipal Vaccinator, viz., Visvanathum Moodaliar, joined his appointment on the 6th October 1878, but he is discontented and wishes to leave. The man before him deserted. The present Municipal Vaccinator does about 40 cases every month. It is very difficult to get a man to remain in Cuddapah as Municipal Vaccinator, and so I recommended the Vice-President to train up a respectable man belonging to the place for the post.

I saw eight lymph subjects, but in all the cases the lymph did not appear good. Four of these cases were revaccinations. The people in Cuddapah have a great objection to lymph being taken from their children's arms, and so most of the cases have to be vaccinated from tube lymph. There are a great many children to be seen about Cuddapah marked with small-pox.

I visited five small schools and found that out of 92 children only 12 had been vaccinated, 24 had small-pox marks, and 38 were unprotected.

The register and instruments belonging to First-class Municipal Vaccinator were kept well.

I visited two villages, viz., Mukapalium and Nubbicotta, which are about half a mile from Cuddapah. In both these villages vaccination was backward. At Mukapalium I saw two lymph subjects which had been vaccinated by First-class Vaccinator C. Gopaulsawmy Naidu of the Cuddapah Taluk. In these cases the lymph appeared good. I also saw some children who had been revaccinated two days before. At Nubbicotta I saw four revaccination cases done by Second-class Vaccinator Gopaulsawmy Naidu of Cuddapah Taluk three days before, but they did not appear as if they would be successful.

While at Cuddapah I examined the records, &c., belonging to the First-class Deputy Inspector of the Cuddapah Circle. They were neatly kept and written up to date.

On the 3rd February I left Cuddapah and went on to Sidhout. There seemed at Sidhout to be great objections to vaccination, which consequently was very backward. There were very few children to be seen with good vaccination cicatrices, and I had four children vaccinated before me.

The Vaccinator belonging to the Sidhout Taluk was on leave, but Second-class Vaccinator Chinnasawmy of the Pullampet Taluk was doing his work. I examined this Vaccinator's register and instruments and found they were well kept.

On the 4th February I left Sidhout and went on to Badvél, where I found vaccination also backward. First-class Vaccinator Abbiah Naidu of the Badvél Taluk is lazy and is always sick. This man has been in Badvél since the 1st of January. In January he only vaccinated 25 cases, 22 of these being done in Badvél and 3 in a hamlet a few miles beyond; all these cases were unsuccessful. He had no lymph subject and only two tubes of bad lymph. I saw some old cases of vaccination, but in all the cicatrices were not well marked. I visited one small pial school and found out of 27 children only 2 were vaccinated, 10 had small-pox marks, and 15 were unvaccinated. This man vaccinates on an average about 27 cases a month. The Deputy Inspector says the Vaccinator is very careless, and that his returns are always late.

On the 5th I went on to Pórumámilla from Badvél. Second-class Vaccinator P. Narrainah of the Pórumámilla Division, Badvél Taluk, has only been entertained since April 1878. He does very few cases, and is always going into Badvél. I went round Pórumámilla with this Vaccinator, and although 21 cases had been vaccinated since June, only 10 could be found, and they were all unsuccessful. Some of the cases shown me had had small-pox before they were vaccinated. This Vaccinator had no lymph subjects and had only two tubes of lymph. His register was very carelessly and incorrectly kept. In the column "Number of Successful Vesicles" cases were entered as been successful, while they were not so.

MADANAPALLE CIRCLE.

Establishment.

1 First-class Deputy Inspector—I. Vurtharajooloo.
4 Do. Vaccinators.
9 Second-class do.
4 Probationary do.
1 Peon.
Area—3,430 square miles.
Population—550,169.

The number of cases vaccinated in this circle for the past year was 3,159 against 5,516 for 1878. The decrease, 2,357, in the number vaccinated for 1879 is attributed to the prevalence of fever in the circle during the year, and to the incompleteness of the staff of Vaccinators, as many were on sick leave, &c., for some time. In consequence of the late famine the birth-rate is also less. First-class Vaccinator Chellamiah, No. 23, performed the largest number of cases, viz., 410. Vaccination still continues very backward, and compulsory vaccination is required in this circle. It is also very difficult to carry on arm-to-arm vaccination, as people will not allow lymph to be taken from the arms of their children. Deputy Inspector I. Vurtharajooloo Naidu of this circle (who was found unfit for the post of Deputy Inspector) was reduced to a Vaccinator and posted to Kurnool. Only 102 subjects under one year of age were vaccinated (comprising 50 males and 52 females) against 126 for 1878. No reports of the outbreak of small-pox were received. No batta was paid to mothers for supplying lymph. The cost of each successful case was Rupees 1-4-7 against 14 annas and 11 pies for 1878.

On the 9th March 1879 I left Bookapatam and went on to Kadiri.

At Kadiri I saw the two Vaccinators. T. Ramasawmy Naidu does very little work. In January he vaccinated 16 children, in February 49, and from 1st to 10th March no cases had been done. He complained that there was a great difficulty in getting lymph from the Deputy Inspector of the Madanapalle Circle. On the 8th January he wrote to the Deputy Inspector for lymph, but did not receive it till the 18th. His instruments were very dirty, and in his register the columns "Signature of Deputy Inspector" and "Date of Inspection" were blank. He had three tubes of lymph, but they were all bad.

Second-class Vaccinator Valoo Moodaly also does very little work. In January he vaccinated 23 cases (all done from tube lymph and scabs), and of these only 6 were successful; in February he did 15 cases (13 from tube lymph and 2 from scabs), and of these only 6 were successful. This Vaccinator works in Kadiri, but he had no cases to show me. He is very ignorant, and he stated that he preferred vaccinating from tube lymph because arm-to-arm vaccination caused ulcers. He further stated that he could not get any children to vaccinate as he had no lymph subject, and the people objected to tube lymph as being useless. This Vaccinator also complained that there was a great difficulty in getting any lymph from the Deputy Inspector, and what he did get was useless. His register was very carelessly kept, and there were in it many mistakes which the Deputy Inspector never seems to have noticed. The last three columns of his register were blank. The Deputy Inspector was in Kadiri in February and did not sign this Vaccinator's register. The instruments belonging to this Vaccinator were dirty, and had only one tube of lymph.

The Tahsildar of Kadiri stated that the Deputy Inspector of Vaccination had never called on him.

On the 10th March I left Kadiri and arrived on the 11th at Madanapalle, where I remained till the 14th.

At Tanacal, a village 14 miles from Kadiri, I saw three old cases of vaccination done by First-class Vaccinator T. Ramasawmy Naidu. The cicatrices in these cases were well marked, but too high up on the arm.

On the 1st March I wrote to the Deputy Inspector of Madanapalle Circle telling him to meet me, but he never turned up. He states that the letter did not reach him till the 19th, and this shows that he must be very careless in giving proper directions to the different Postmasters. The letter arrived in Madanapalle on the 3rd and was sent on to Kadiri, but the Deputy Inspector was in Madanapalle on the 4th; on the 9th the letter was at Váyalpád, and the Deputy Inspector was at Peelair, a place 22 miles from Váyalpád, till the 10th, where there is a Post Office, but still he did not receive the letter till the 19th.

As I found on my arrival at Madanapalle that the Deputy Inspector was away, I at once inquired at the Post Office and at his house where he had gone to, and was told that he had ordered his letters to be sent to Váyalpád. A messenger was at once sent to Váyalpád, but returned without finding the Deputy Inspector, as he was told that he had gone to Madanapalle. From the Deputy Inspector's diary it appears he had gone on to Calcudda, &c. This Deputy Inspector knows very little English.

Vaccination at Madanapalle is backward. I visited four schools there, and out of 81 pupils 28 were vaccinated, 28 had had small-pox, and 25 were unprotected.

I examined the register and instruments belonging to First-class Vaccinator Challamya of the Madanapalle Taluk. The register was neatly kept in Telugu, and he had many tubes of lymph. In February he only did 30 cases. In Madanapalle I saw some lymph subjects done by the Vaccinator, but the lymph was not good; very few of the cases had six vesicles.

On the 3rd December 1879 I arrived at Madanapalle.

At Madanapalle Circle vaccination is very backward. This is no doubt greatly due to the objections the people have to submit to vaccination, but the Vaccinators of this circle as a rule are very lazy and inattentive to orders.

For the Madanapalle Circle there are 12 Vaccinators, but no probationers are provided to take the places of Vaccinators who go on leave or are dismissed, &c. More Vaccinators are required, and each one should have a division and visit every village, &c., in it at least once a year. It would also be a good plan to obtain sanction from Government to add to the results grant rules a clause that no grant will be paid for any pupil of the result grant schools unless he has been successfully vaccinated or had small-pox.

Since my visit to Madanapalle a circular has been issued to all Vaccinators by the Vice-President, and I trust that the returns of vaccination in future will be better.

The Deputy Inspector of Vaccination is quite unfit for his post, and he will be removed from his appointment as soon as a good man can be procured.

GANJAM DISTRICT—CHATRAPUR CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—Y. Poonoosawmy Pillay.
8 Do. Vaccinators.
10 Second-class do.
2 Probationary do.
Area—3,088 square miles.
Population—784,856.

The number of cases vaccinated for the past year were 11,342 (of these 6,436 were males and 4,906 females) with a percentage of 92·94 of success. The total vaccinated for 1879 shows an increase of 2,832 cases when compared with the work done for the past year. Mahomed Alludin, Deputy Inspector of Vaccination of this circle, was reduced and transferred in November 1879 to Hosúr Circle for unsatisfactory work. The present Deputy Inspector, who was formerly Second-class Deputy Inspector of the Vizianagrum Range, was promoted to first grade and posted to the Chatrapur Circle. First-class Vaccinator G. Balaramasawmy did the largest number of cases, viz., 1,221 cases, among all the Vaccinators. Only 172 infants under one year of age were vaccinated; of these 166 were successful, 3 unsuccessful, and 3 unknown. For 1878 only 115 cases were vaccinated under one year of age, so that there is an increase for 1879 of 57 cases. Infantile vaccination is very backward when it is seen that the births for 1879 were 16,431. Nine vaccination certificates were granted during the year. Rs. 19-13-3 were spent in paying batta to mothers for supplying vaccine lymph. The cost of each successful case for 1879 was 6 annas and 4 pies against Annas 7 and Pies 3 for 1878.

CHICACOLE CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—P. Vardarajooloo.
2 Do. Vaccinators.
8 Second-class do.
Area—1,186 square miles.
Population—566,863.

The total number vaccinated in this circle for the past year was 6,017; of these 5,479 were successful, 393 unsuccessful, and 145 unknown. On comparing the total vaccinated for 1879 with that for 1878 there is found an increase of 2,318 cases for the past year. Second-class Vaccinator Somanathasabusty vaccinated the largest number of cases, viz., 975, for the year. Small-pox was slightly prevalent in September, October, and November, and when the disease appeared measures were at once taken to vaccinate all the unprotected. The number vaccinated under one year of age was 292 (of these 154 were males and 138 females) against 139 for 1878. The Deputy Inspector states that no travelling batta is allowed to Vaccinators, but the Deputy Inspector gets Rs. 10 per mensem. A peon is not allowed to the Deputy Inspector. No batta was paid to mothers for furnishing lymph. The conduct of the Vaccinators, with the exception of T. Kristniah, was good. The Deputy Inspector of this circle is very careless and lazy, and has not given satisfaction. The cost of each successful case was Annas 6 and Pies 7 against Annas 12 for 1878.

HILL TRACTS OF GANJAM.

ESTABLISHMENT.

1 First-class Deputy Inspector—T. Theroovengadam Pillay.
6 Second-class Vaccinators.
Area—Unknown.
Population—131,112.

The Deputy Inspector reports that 3,212 cases were vaccinated during the past year with a percentage of 93·99 of success, and the results in 73 cases were not ascertained. On comparing this total with that for 1878 there is found for 1879 an increase of 263 cases. This increase was mainly due to small-pox having been prevalent in some villages of the Balliguda Taluk. Second-class Vaccinators Broom Singh and Luke Singh, who carried on work in the villages of Balliguda Taluk, where small-pox prevailed, did many more cases than were done last year; the former did 341 and the latter 328 more in 1879 than were performed in 1878. In the Oodiagherry Taluk no small-pox appeared, and the Vaccinators Donya Dollabohara and Sunder Singh did very few cases. In this taluk it is impossible to get cases vaccinated unless small-pox is prevalent, and so the services of the Vaccinators for this taluk should be dispensed with I think. Small-pox was prevalent in three villages of Balliguda Taluk, but no mortality occurred from this disease. Immediately on reports being received measures were taken to vaccinate all the unprotected. Deputy Inspector of Vaccination M. Narrainah of these Hill Tracts was transferred in November 1879 to the Salem Circle, and the present man was posted to this circle from the Negapatam Circle. 158 infants under one year of age were vaccinated for 1879; of these 79 were males and 79 females. There is a decrease of 54 cases under one year of age for the past year when compared with that for 1878. The cost of each successful operation was 10 annas and 1 pie, and this is less than that for 1878, which was Rs. 1-4-9. The conduct of the staff was good. The services of a peon are asked for by the Deputy Inspector.

GODAVARI DISTRICT—COCANADA CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—K. Parthasaradhi Naidu.
6 Do. Vaccinators.
8 Second-class do.
3 Probationary do.
2 Estate Vaccinators.
1 Peon.
Area—3,507½ square miles.
Population—834,948.

The Deputy Inspector reports that for the past year 11,353 cases were vaccinated in this circle with a percentage of 88·77 of success, and the results in 468 cases were not ascertained. Of the total Vaccinated, 748 were done by the two Vaccinators employed in the Bhadráchalam Hill Tracts, 9,445 by the Local Fund Vaccinators, and 1,160 by the Estate Vaccinators. On comparing the work for 1879 with that for 1878 there is found a large decrease of 8,724 cases for the past year, and this is accounted for, first, by the absence of small-pox throughout the year and the non-employment of temporary Vaccinators. In this circle when small-pox appears the people willingly come forward to be vaccinated, and this was seen when small-pox was very prevalent in 1878. Second, by the absence of many Vaccinators on sick leave, &c., owing to fever being very prevalent in this district; and, third, by the Rampa rebellion in the Hill Tracts of Rajahmundry Taluk, Bhadráchalam, Peddápuram, and Tuni Taluks, and the work of vaccination to some degree was partly impeded. In the Bhadráchalam Taluk not a single case was vaccinated in the months of August and September. On reviewing the work of individual Vaccinators, Second-class Vaccinator R. Baupaniah, No. 970, has done the largest number of cases, viz., 1,155. No great obstructions to the spread of vaccination exist in this circle, but still the Deputy Inspector thinks it would be better if vaccination was made compulsory. The number of cases vaccinated under one year of age during the past year was 513 (comprising 271 males and 242 females) against 893 done for 1878. The conduct of the staff was good. The cost per successful operation was 8 annas and 2 pies against Annas 5 and Pies 2 for 1878.

ELLORE CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—M. Nursinghbon.
5 Do. Vaccinators.
5 Second-class do.
2 Probationary do.
1 Peon.
Area—3,211 square miles.
Population—694,927.

The total number of cases vaccinated in this circle for the past year was 5,870 with a percentage of 83·08 of success, and the results in 424 cases were unknown. On comparing this total with that for 1878 there is found a decrease of 2,140 cases for 1879, and this is due to no small-pox having been prevalent during the year. It is when small-pox is prevailing that people come forward to be vaccinated. On reviewing the work of individual Vaccinators the greatest number, viz., 1,382, of vaccinations were performed by First-class Vaccinator C. Nagannah. First-class Deputy Inspector M. Nursinghbon was suspended and subsequently reduced to a vaccinator for unsatisfactory work and non-submission of returns. No small-pox was prevalent during the year. The conduct of the staff was good with the exception of a few men. First-class Vaccinator M. Soobaroyadu vaccinated a very few cases, viz., 168. This man was fined on two occasions and reprimanded. There were 613 children under one year of age vaccinated against 590 done for 1878. Rupees 22 were paid as batta to mothers for supplying lymph. The lymph in use was good. Second-class Vaccinator C. Runganaikooloo of the Ellore Taluk was convicted for submitting false returns and sentenced by the Head Assistant Collector to undergo a simple imprisonment for two months. The cost of each successful case was 9 annas and 11 pies against 4 annas and 4 pies for 1878.

KISTNA DISTRICT—GUNTUR CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—C. Narsimooloo.
3 Do. Vaccinators.
9 Second-class do.
2 Probationary do.
1 Peon.
Area—4,131, square miles.
Population—660,106.

In this circle 4,926 cases were vaccinated during the past year. Of these 4,266 were successful, 313 unsuccessful, and 347 unknown. The numbers vaccinated during 1878 and 1879 are as follows:—

1878	9,924
1879	4,926

showing a large decrease of 5,053 cases for 1879. This decrease is attributed to the incompleteness of the staff during the year as given below. One First-class Vaccinator was on three months' privilege leave, and no substitute was appointed to act for him. One Second-class Vaccinator was appointed to act for a Deputy Inspector and a man was sent in his place for only a few days. Four Second-class Vaccinators were on the sick list for 7½ months, and in the place of two, two probationers acted for 2 and 2½ months. Some of the Vaccinators were also very lazy and did no work. Only four Vacinators worked during the year. The Local Fund Board employed two probationary Vaccinators for the circle in the month of July 1879. These men learnt their work for three months under the Deputy Inspector, and afterwards were sent to act for men who were on the sick list. First-class Vaccinator M. Survasem performed the largest number of operations, viz., 651, among the staff. 231 children under one year of age were vaccinated against 149 for

1878. The Deputy Inspector of this circle was reduced at the end of the year to First-class Vaccinator and posted to the Adoni Municipality, as he did his work very unsatisfactorily notwithstanding repeated warnings and fines. Vaccination is backward especially in Palnád, Narsaraopet, and Vinukonda Taluks, where the people refuse to submit to the operation for five or six months of the year when they are engaged in cultivation and in reaping the harvest. Small-pox appeared in October in a village of the Guntúr Taluk, and the progress of the disease was soon arrested. The conduct of the Vaccinators with a few exceptions was not satisfactory and the lymph in use was not good. Great difficulties are experienced in extracting lymph from the arms of vaccinated children, as the parents think that some harm will happen to them if such is done. The Acting Deputy Inspector states that assistance from the Revenue officials is required for the improvement of vaccination in this circle. No batta was spent to mothers for supplying lymph. Fifty-eight vaccination certificates were granted to candidates who appeared for the Uncovenanted Civil Service Examinations and to village servants. The cost of each successful case was 12 annas and 7 pies against 5 annas and 10 pies for 1878.

MASULIPATAM CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—D. Baupaniah.
7 Do. Vaccinators.
7 Second-class do.
2 Probationary do.
1 Peon.
Area—3,652 square miles.
Population—738,047.

The total number of persons vaccinated during the past year was 7,177 with a percentage of 79·80 of success. The results in 704 cases were unknown. On comparing the total vaccinated with that for 1878 there is found a decrease of 7,494 operations, and this is accounted for by the prevalence of fever to a great extent and by the absence of small-pox throughout the year when the demand for vaccination is great. Seven extra hands were employed when small-pox was prevalent in 1878 for three months to vaccinate all the unprotected. One of the Vaccinators greatly neglected his work, and for this he was suspended. Four Vaccinators obtained privilege leave from one to three months. The village authorities should help to push on vaccination more, and they should have their children done first as an example to the people. 433 children under one year of age were successfully vaccinated against 1,089 for 1878. Rs. 34-5-0 were spent towards batta to mothers for supplying lymph. Eighteen charges of lymph were sent to the different officers who applied for it. 122 vaccination certificates were granted to candidates in this year. The conduct of the staff was fairly good, and the lymph in use effective. The average cost of each successful case was Annas 10 and Pies 6 against 4 annas and 11 pies for 1878.

KURNOOL DISTRICT.

ESTABLISHMENT.

1 First-class Deputy Inspector—C. Poonoosawmy Pillay.
4 Do. Vaccinators.
7 Second-class do.
2 Probationary do.
1 Peon.
Area—7,676½ square miles.
Population—926,766.

The Deputy Inspector reports that 3,865 were vaccinated during the past year with a percentage of 84·83 of success, and the results in 261 cases were unknown. On comparing the total for 1879 with that for 1878 there is found an increase of 530 cases for the past year, and this, the Deputy Inspector states, is due to two of the vaccinators having performed a large number of cases. There would have been a greater increase had not a few Vaccinators been sick. Deputy Inspector of Vaccination V. Darmalinga Mudaly of this district was reduced to second grade and posted to Shermádevi Circle, as his work was unsatisfactory. The present man was promoted to first grade and posted to this district from Hosúr Circle. Obstructions of various kinds exist in this district in regard to vaccination. In the taluk of Pattikonda vaccination is carried on well, as the Tahsildar gives great assistance to the Vaccinators. In all other taluks, however, vaccination is not well carried on, and the village authorities should keep lists of people who are unvaccinated in their villages, and also set an example by getting their own children first vaccinated. The co-operation of the Revenue authorities, the Deputy Inspector says, is greatly needed in pushing on vaccination in the district. The Deputy Inspector recommends compulsory vaccination. No reports of small-pox were received during the year, but there appears to have been 37 deaths from this disease. The total number vaccinated under one year of age was 270 (of which 136 were males and 134 females), showing an increase of 152 cases over that for 1878. The cost of each successful case was Annas 12 and Pies 10 against 14 annas and 5 pies of 1878.

On the 6th February 1879 I went to Allynuggar and was there met by the Deputy Inspector of the Kurnool District. In this village vaccination was very backward, and I could not find a single child who had been vaccinated, although the births from April 1878 to December 1878 had been 40. No Vaccinator had visited this place for a year, and the Deputy Inspector had not been for two years there. Second-class Vaccinator Abdullah Saib of the Cumbum Taluk had only been in that taluk for two months.

In the villages on the road between Allynuggar and Cumbum there had been no vaccination done for two years. On the 7th I arrived at Cumbum from Allynuggar and remained there till the 9th. For two years there has not been a single case vaccinated in Cumbum. Formerly, when Cumbum was a Municipality and had a Municipal Vaccinator, about 50 cases were vaccinated yearly. The number of births for 1876-77 was 64 and for 1877-78, 65. I visited two small schools and found out of 29 children that 3 were vaccinated, 15 were unvaccinated, and 11 had small-pox marks. The Vaccinator, viz., Second-class Vaccinator Abdullah Saib, has been often in Cumbum, but has never vaccinated a case there.

At Chintalapaliam, a village near Cumbum, two children were shown me as having been vaccinated some months before, but they were both unsuccessful.

Second-class Vaccinator Abdullah Saib seems very lazy. He had no lymph subjects, only four tubes, and they were all bad. This Vaccinator's register was kept in Telugu, and since October very little work has been done by him. In October he vaccinated 10 cases, in November 30 (all in one village), in December 12 (all in one village), and in January 1. His instruments were clean and well kept.

On the 9th I left Cumbum and arrived at Gazerpilly on the 10th.

At Kistnamchettipully and Gazerpilly no vaccination had been done for years.

On the 11th I arrived at Nandyál. Vaccination is here very backward, and I was shown a few cases which had been done in 1877-78 by Second-class Vaccinator K. Lutchmiah of the Nandyál Taluk. These cases had well-marked cicatrices. I also saw a few cases which had been done on the 4th, 5th, 7th, and 8th, but the lymph in use did not appear good. This Vaccinator does not do much work. In August he vaccinated 10 cases, in September 27, in October 30, in November 30, in December 5, in January 22, and in February 5 (all in Nandyál).

I examined this Vaccinator's register; the entries in column "Number of Successful Vesicles" were incorrect, although the Deputy Inspector had inspected this man's work, cases being entered as successful which were not. Columns "Initial of Vaccinator," "Initial of Deputy Inspector," and "Date of Inspection" were all blank.

From April 1878 to January 1879 this Vaccinator had vaccinated 233 cases, and only 59 of these had been verified by the Deputy Inspector. The instruments belonging to the Vaccinator were well kept, but he had only one tube of lymph.

On the 12th I went on to Kalva from Nandyál. No vaccination had been done at Kalva for a long time, and most of the children about the town were unvaccinated.

On the 13th I arrived at Kurnool from Kalva. Vaccination at Kurnool is backward, and the Municipal Vaccinator Soorajadeen Baig appears lazy. I saw some old cases of vaccination with well-marked cicatrices. A great number of his cases were prisoners in the Camp Jail. I saw five lymph subjects, but the lymph in use did not appear good. This Vaccinator's register was very carelessly kept, the entries in the column "Number of Successful Vesicles" being incorrect, although the Deputy Inspector had inspected his work. The column "Initial of the Deputy Inspector" was blank. His instruments were dirty and the tubes of lymph which he had were bad.

At Kurnool I examined the register and instruments belonging to First-class Vaccinator P. R. Sooranah of the Rámallakót Taluk. His register was well kept, but his instruments were dirty.

I also examined the records, &c., belonging to the Deputy Inspector of the Kurnool District. They were written up to date, but the service books of Vaccinators were not kept properly. This Deputy Inspector is a lazy man, and his knowledge of English is very slight. He seems to take very little interest in pushing on vaccination, and his inspection is very careless, and his work is very unsatisfactory.

On the 18th I arrived at Yelloorty from Kurnool. There have been no children vaccinated at Yelloorty for two years, and the Deputy Inspector says this is due to all the children having been vaccinated in the relief-camps. In one small school out of 18 pupils I found 6 with vaccination marks, 6 with small-pox marks, and 6 unprotected.

On the 19th I went on to Paipully. At Dhone, a village between Raipully and Yelloorty, there had been no children vaccinated for two years. At Paipully vaccination is backward; only 17 old cases could be seen. Two children had been vaccinated from scabs five days before the date of my visit: one case was absent and the other was unsuccessful. I examined the register and instruments belonging to Second-class Vaccinator Hoossain Sahib of the Pattikonda Taluk. His register was well kept, but his instruments were very dirty. He had one tube of lymph, but no lymph bottle, having lost it six months before.

MADURA DISTRICT—DINDIGUL CIRCLE.

ESTABLISHMENT.

1 Second-class Deputy Inspector—C. Gooroosawmy.
6 First-class Vaccinators.
9 Second-class do.
3 Probationary do.
Area—3,903¼ square miles.
Population—954,965.

The Deputy Inspector reports that 11,656 cases were vaccinated in this circle with an average percentage of 97·91 of success, and the results in 127 cases were not ascertained. The total comprises 6,162 males and 5,494 females. On comparing the total of 1879 with that for 1878 there is found an increase of 312 cases for the past year. Second-class Vaccinator Vadamalay pillay, No. 1,066, vaccinated the largest number of cases among the Vaccinators, viz., 956. Obstructions still exist in most parts of the circle. Fever prevailed in Tirumangalam Taluk during the year, and many deaths occurred from it in the village of Eloomalai and its suburbs. Owing to this the people objected to vaccination altogether. Small-pox appeared in the divisions of Nelaikottah and Siloochunarputty, and on reports being received steps were taken to vaccinate all the unprotected. The lymph in use was good. The Deputy Inspector states that compulsory vaccination is required in this circle. The number of cases vaccinated under one year of age was

3,261, of which 3,198 were successful, 29 unsuccessful, and 34 unknown. There is an increase of 52 cases vaccinated under one year of age for 1878 over that done for 1879. No case of small-pox after successful vaccination occurred. The cost of each successful operation was 5 annas and 11 pies against Annas 4 and Pies 9 for 1878, and the increase in the cost per head is due to travelling batta at the rate of 4 annas per diem having been allowed to Vaccinators. The conduct of the staff was good.

On the 20th September 1879 I went on to Dindigul.

The Dindigul Municipality employs one First-class Vaccinator. The present man, M. Abdool Kareem, who formerly was a Second-class Local Fund Vaccinator, was appointed to this Municipality in July 1879. From July to September he vaccinated 238 cases. Of these 101 were successful and 42 under one year of age. No one seems to inspect this man's work. His register and instruments were clean, but he had no lymph bottle.

Vaccination is well carried on in the Dindigul Municipality. I visited some schools and found that out of 244 scholars 160 were vaccinated, 45 were unprotected, and 39 had marks of small-pox.

At Dindigul I saw First-class Vaccinator Syed Kudratalla of the Dindigul Division. This man has seven years' service and knows English. From January to August he vaccinated 759 cases. Of these 608 were successful, 148 were under one year of age, and 145 were verified by the Deputy Inspector. His register and instruments were in good order. I saw some recent cases which had been done by him, and the lymph in use was good.

On the 6th October I went on to Tirumangalam, where I saw two Vaccinators of the Dindigul Circle, viz., First-class Vaccinator Streenivasaloo Naidu of Sáptúr Division, Tirumangalam Taluk, and Second-class Vaccinator Royappah Pillay of Tirumangalam Division.

First-class Vaccinator Streenivasaloo Naidu has six years' service, and from January to September only vaccinated 491 cases. Of these 484 were successful, 30 under one year of age, and 342 from arm to arm. In his register there were many mistakes. His instruments were clean, but had no lymph preserved in tubes. This Vaccinator is a careless man, and he does not seem to move about much.

Second-class Vaccinator Royappah Pillay vaccinated 349 cases from January to September. Of these 347 were successful, 70 under one year of age, and 256 from arm to arm. His register had many mistakes in it, but his instruments were clean. He also had no lymph preserved in tubes.

For the Tirumangalam Taluk there are four Vaccinators, and on the date of my visit three of them were living in Tirumangalam. This should not be allowed, and every Vaccinator should live in his division.

In the town of Tirumangalam vaccination is fairly well carried on. I visited some schools and found that out of 173 scholars 76 had been vaccinated, 55 were unprotected, and 42 had marks of small-pox.

On the 7th October I left Tirumangalam and went on to Kulliguddy, where I saw some cases which had been vaccinated by Second-class Vaccinator Moonisawmy Naidu of the Kulliguddy Division. The lymph in use was good. This man vaccinated from January to September 352 cases. His register and instruments were well kept, but he had no lymph in tubes; only some between glass plates, and that was bad.

MADURA CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—G. Rungasawmy.
12 Do. Vaccinators.
20 Second-class do.
2 Probationary do.
1 Peon.
Area—4,886½ square miles.
Population—1,246,798.

There were for the past year 26,195 cases vaccinated. The numbers vaccinated during 1878 and 1879 are as follow :—

1878	26,342
1879	26,195

showing a slight decrease of 147 cases for the past year, and this is due to a few of the Vaccinators having been on leave during a portion of the year. Of the total, 24,583 were successful, 584 unsuccessful, and 1,028 unknown. The average number vaccinated for the year by each Vaccinator is 771. First-class Vaccinator Anchuloo Naidu, No. 768, vaccinated the largest number of cases, viz., 1,472. The Deputy Inspector states that vaccination is backward in some parts of the circle, and that Lubbays, Weavers, and Cashkara Chetties strongly object to vaccination. There is great difficulty experienced in being allowed to extract lymph from the arms of children vaccinated. Small-pox was prevalent to a small extent in Pámban, and on reports being received Vaccinators were instantly ordered to visit the infected parts and vaccinate the unprotected. The Deputy Inspector states that compulsory vaccination is required in this circle. The quality of the lymph was good and effective. Three thousand seven hundred and eighty-two infants under one year of age were vaccinated against 3,872 for 1878. The conduct of the staff was generally good. Thirty-three vaccination certificates were granted to candidates who went up for Government Examinations. The cost of each successful operation was 3 annas and 10 pies, and was the same as for 1878.

On the 30th September I left Dindigul for Madura.

There are two Vaccinators (one 1st Class and one 2nd Class) for the Municipality of Madura.

First-class Vaccinator Moothoocarooppa Pillay was appointed in November 1877. This man does not know English, and his register is kept in Tamil. From January to September he vaccinated 788 cases. Of these 688 were successful, 291 under one year age, and 376 from arm to arm. I saw some cases which had been lately vaccinated by this man and the lymph was good. His register was written up to date, but there were mistakes in it. He had no lymph in tubes, but between glass plates.

Second-class Vaccinator Shaik Ebraim was appointed in June 1875 and knows no English. From January to September he vaccinated 619 cases. Of these 556 were successful, 199 were under one year of age, and 304 from arm to arm. His register was kept in Tamil, and there were many mistakes in it. He had no lymph in tubes, but had some between glass plates. I saw some children he had vaccinated a week before, and the lymph in use appeared good. Vaccination in Madura Town is fairly well carried on. The Vaccinator's work is inspected by the Deputy Inspector. I visited some schools and found that out of 471 children 269 had been vaccinated, 113 were unprotected, and 89 had marks of small-pox. Infantile vaccination is, however, backward. From January to September only 490 children under one year of age were vaccinated, while the births for the same time were 1,407.

At Madura I examined the records, &c., belonging to the First-class Deputy Inspector of Vaccination and found they were well kept and written up to date. Many of his letters, &c., were in Tamil, as very few of the Vaccinators in the Madura Circle know English. No batta is allowed the Deputy Inspector, but he goes about good deal.

While at Madura I saw the following men :—

First-class Vaccinator Alagirisawmy Naidu of the Madura Taluk. This man keeps his register in Tamil, as he knows no English. From January to September he vaccinated 914 cases. Of these 881 were successful, 279 under one year of age, 481 from arm to arm, and 658 had been verified by the Deputy Inspector. This man is old and does not appear very energetic. His register was incorrectly prepared, and he had no preserved lymph of any kind. I saw some old and also some recent cases this man had done. The lymph was fair and the old cases had good cicatrices.

Second-class Vaccinator Ramachendra Naidu of Madura Taluk was appointed as a Second-class Vaccinator in May, but before that he was a probationer. He

only knows a very little English, and his register is kept in Tamil. From January to September this man vaccinated 399 cases. Of these 369 were successful, 88 under one year of age, 182 from arm to arm, and 172 had been verified by the Deputy Inspector. His register was not kept correctly, and he had no preserved lymph of any kind. I saw some recent cases he had vaccinated, and the lymph in use was good.

Second-class Vaccinator Gooroosawmy Pillay of Madura Taluk also knows very little English. From January to September he vaccinated 493 cases. Of these 399 were successful, 63 were under one year of age, 265 from arm to arm, and 198 were verified by the Deputy Inspector. His register was kept in Tamil and in the column "No. of Successful Vesicles" the entries were wrong in some cases. He had no preserved lymph of any kind. I saw some cases which had been recently vaccinated by this man, and the lymph in use was good.

Second-class Vaccinator Batchamea Saib of Tirupuvanam Taluk vaccinated from January to September 530 cases. Of these 448 were successful, 87 under one year of age, 362 from arm to arm, and 222 were verified by the Deputy Inspector. This man keeps his register in Tamil, and he also had no preserved lymph of any kind. His instruments were dirty.

Probationary Vaccinator Veerasawmy Naidu of Tirupuvanam Taluk vaccinated 108 cases from January to September. Of these 103 were successful, 13 under one year of age, and 56 from arm to arm. His register was in Tamil, and his instruments were not well kept.

Acting Probationary Vaccinator Thondiappen Thevan of Tirupuvanam Taluk was appointed in May. He has vaccinated 134 cases, of which 128 were successful, 24 were under one year of age, and 99 from arm to arm. He had no preserved lymph of any kind.

MALABAR DISTRICT—CALICUT CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—A. Krishna Nair.
2 Do. Vaccinators.
5 Second-class do.
2 Temporary do.
Area—4,538 square miles.
Population—1,482,029.

The Deputy Inspector reports that 10,673 cases of vaccination were done in this circle with a success of 82·49 per cent., and the results in 1,202 cases were unknown. The Malabar District was divided into two vaccine circles in the month of June 1879 and a Second-class Deputy Inspector was appointed to the sub-circle. On comparing the work done by the vaccinators of the Calicut Circle for 1879 with that for 1878 there is found a decrease of 800 cases for the past year. The decrease is due to temporary vaccinators having been employed in 1878 and not in 1879, and also to the absence of some permanent vaccinators on sick leave, &c. The numbers fixed in G.O., No. 1,591, dated 2nd September 1876, for the vaccinators is too low. The President of the Local Fund Board, however, ruled at the end of the year that First-class Vaccinators should vaccinate not less than 150 and second-class men not less than 100 cases per mensem. On comparing the work of individual vaccinators First-class Vaccinator Moothoo Pillay is found to have done the largest number of cases, viz., 1,429. The Deputy Inspector recommends that all vaccinators should receive one anna for each case vaccinated over 1,200 in the year. Obstructions to the spread of vaccination still exist in the circle, and the proposed Bill for compulsory vaccination is required. The pupils of all Local Fund Schools should be vaccinated, and no result grants paid for any boy unless he has been done. The Deputy Inspector suggests the purchase of a few vaccination copies in Malayalum language for distribution to the educated and influential people with a view to make known the object of vaccination. Small-pox was not prevalent to the extent it was in 1878; but whenever the disease made its appearance steps were at

once taken to have all the unprotected children vaccinated. The Deputy Inspector recommends, for the improvement of vaccination, that each taluk be provided with two vaccinators, one first class and one second class, except in Ponáni and Walawanád Taluks which are larger and require the services of three men each; also that vaccinators' divisions correspond with those of Revenue Inspectors, and that the latter officers be required to interest themselves in the work. Infantile vaccination is very backward in this circle, and only 45 children under one year of age were done. The vaccinators should be allowed to see the birth registers kept by village officials since their last visits, so that they may know the number of births that have occurred. The conduct of the staff was good and the lymph in use effective. The cost of each successful case was Annas 4 and Pies 5. Deputy Inspector Ponnen Connen of this circle was transferred to Trichinopoly, and the present man joined in the latter part of the year from Trichinopoly.

On the 29th June 1879 I arrived at Maumbat where I was met by the Deputy Inspector of Vaccination, Malabar District. This man, although he has been in the Malabar District for three years, has never visited either Nilambur or Maumbat, and no vaccination has been done in those places for years.

On the 29th I left Maumbat and went on to Calicut where I remained till the 3rd July. I passed on the way many small villages, but no vaccination had been done in them for years. There are now only two Municipal Vaccinators at Calicut, viz., Second-class Vaccinator D. Bhavan Singh and Second-class Vaccinator O. Krishna Nair. They both seem to work fairly well, and the lymph in use appeared good. The old cases I saw had also well-marked cicatrices. Each vaccinator does on an average about 52 cases per month. In the Moplah part of the town vaccination is still very backward. The registers of vaccinators are occasionally signed by the Commissioners of the divisions they do work in. No batta is given to the children who are vaccinated except lymph is taken when ½ or 1 anna is allowed. The registers and instruments belonging to the vaccinators were well kept. Formerly three Municipal Vaccinators were employed, but one was dismissed a few months ago and two are quite sufficient.

While at Calicut I examined the records, &c., belonging to the First-class Deputy Inspector of Vaccination, Malabar District. His books had many wrong entries in them. Out of 11 vaccinators only 7 had service books, and the Deputy Inspector's excuse for all not having them was that there were none in the treasury.

The service books were not written up to date, although he was told to do so in December 1878 when I was at Calicut. This Deputy Inspector is a lazy man and does not go out into the district much. On the 3rd I left Calicut and went on to Beypore. I saw one lymph subject which had been vaccinated by Second-class Vaccinator Raman of the Beypore Taluk, but the lymph in use did not appear good. The vaccinator does not appear to do much work. His register was neatly prepared, but the column "Signature of Deputy Inspector" was blank. He had no tube lymph, only one glass charged with lymph which was bad.

On the 30th October 1879 I arrived at Cochin where I remained till the 3rd November. The Municipality of Cochin employs one First-class Vaccinator named P. Achoocooty. This man knows English, and from 1st January to 31st October 1879 he vaccinated 878 cases. Of these 618 were successful and 61 under one year of age. His register was incorrectly kept, and there were no means of knowing how many cases were vaccinated from arm to arm. His instruments were clean, but he had not a good supply of lymph. Vaccination in Cochin is backward. Thus the births from 1st January to 30th September were 289, while the children vaccinated for that time under one year of age were only about 55. The deaths from small-pox from 1st January to 30th September were —

Under 1 year of age	12
Above 1 and under 12 years	36
Above 12 years	86
	134

TELLICHERRY CIRCLE.

ESTABLISHMENT.

1 Second-class Deputy Inspector—M. Buthrootheen.
2 First-class Vaccinators.
3 Second-class do.
Area—1,663½ square miles.
Population—656,954.

This Vaccine Circle was newly created during the past year, and the Deputy Inspector of this circle joined on the 30th July 1879. The total number vaccinated in six months is 2,332 with a success of 89·75 per cent. and the results in 155 cases were unknown. Before the district was divided into a separate circle the vaccinators attached to the circle did 2,268 cases, hence a total of 4,600 cases were done during the past year, showing a decrease of 326 cases when compared with the numbers vaccinated by the same vaccinators for 1878. The decrease is due to the incompleteness of the staff and to the absence of a vaccinator of the Kurumbranád Taluk for nearly two months. Second-class Vaccinator K. Koran did the largest number of cases, viz., 842, among the staff. The number vaccinated under one year of age, viz., 6, is very unsatisfactory and the parents strongly object to their childern being vaccinated before they are one year old. Vaccinators should, when they visit a village, be shown a list of the births that have taken place since their last visit. Small-pox was prevalent in the circle, but not to a great extent, and immediately reports were received, measures were at once taken to vaccinate the unprotected. An Act to make vaccination compulsory is required. Vaccinators should be allowed batta. Batta to mothers for supplying lymph should also be paid. The Local Fund Board has sanctioned batta to the Deputy Inspector at 1 rupee per diem for distances travelled beyond 10 miles from his head-quarters. An additional vaccinator and two probationers have been sanctioned to this circle. The cost of each successful case was Annas 5. The conduct of the staff was good and the lymph effective.

NELLORE DISTRICT—NELLORE CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—C. N. Ramasawmy.
4 Do. Vaccinators.
7 Second-class do.
4 Probationary do.
2 Estate Vaccinators.
1 Peon.
Area—3,895 square miles.
Population—703,867.

The total number vaccinated in this circle during the year was 6,497 with a percentage of 90·62 of success. The result in 256 cases were unknown. The circle comprises four taluks and one Zemindari estate. Of the above total 5,900 were performed by the Local Fund Vaccinators with 5,330 successful, 321 unsuccessful, and 249 unknown results. On comparing the work for 1879 with that for 1878 there is found a slight decrease of 409 cases for the past year. The Local Fund staff's work, however, shows a decrease of 585 cases for 1878 when compared with that for 1879, and this is due to fever having been very prevalent throughout the circle and to the absence of one or more vaccinators on leave. The village officials do not give the assistance they should to vaccinators, and the Deputy Inspector states that they are always ready to furnish the vaccinators with certificates stating that people are unwilling to be vaccinated. These village officials should have their children vaccinated first as an example to the people. The work done by the two Estate Vaccinators is 597, of which 568 were successful, 22 unsuccessful, and 7 unknown. First-class Vaccinator P. Vadamalay Pillay vaccinated 736 cases, being the highest

number vaccinated among the staff. The Deputy Inspector suggests that vaccination be made compulsory. Small-pox prevailed throughout the year except in the months of June and September, and the deaths registered from this disease were 64. The number of children vaccinated under one year of age was 232 against 194 for 1878. Ninety-four vaccination certificates were granted to candidates. Rs. 5-12-9 were spent in batta to mothers for supplying lymph. The conduct of the staff was on the whole good. The cost of each successful case was Annas 10 and Pies 5 against 9 annas 4 pies for 1878.

ONGOLE CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—M. Basker Row.
4 Do. Vaccinators.
7 Second-class do.
4 Probationary do.
1 Peon.
Area—3,255 square miles.
Population—643,022.

The Deputy Inspector reports that 3,877 cases were vaccinated, during the past year with a success of 84·34 per cent., and the results in 238 cases unknown. On comparing the total vaccinated for 1879 with that for 1878 there is found a decrease of 4,063 cases for the past year, and this is due, the Deputy Inspector states, to eight Probationary Vaccinators, who worked in 1878, having been dismissed on 1st January 1879. In April four Probationary Vaccinators were entertained. During the year the staff was incomplete for some months. One Second-class Vaccinator resigned and his place was not filled up for three months, and one probationer did not join his appointment for five months, and his post was vacant for the above period. First-class Vaccinator Abdul Whab has done the largest number of cases, viz., 521. The people in this circle object to vaccination, and assistance from village officers is required. No small-pox was reported during the year in the circle. The total vaccinated under one year of age was only 87 (of these 58 were males and 29 females) against 194 for 1878. Infantile vaccination is very backward in the circle and village curnams should always give vaccinators a list of children that have been born since their last visits. No batta was spent to mothers for supplying lymph. The average cost of each successful case was Rs. 1-1-5 against 9 annas 11 pies for 1878. The conduct of the staff was fairly good. Twenty-nine vaccination certificates were granted to candidates who appeared for examination. The lymph in use was excellent.

NORTH ARCOT DISTRICT—CHITTOOR CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—Mr. James Waywood.
8 Do. Vaccinators.
9 Second-class do.
4 Probationary do.
1 Peon.
Area—5,221 square miles.
Population—1,326,292.

This circle comprises five taluks and four zemindari divisions. The total number vaccinated during 1878 and 1879 are as follows:—

1878	18,331
1879	10,431

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showing a large decrease of 7,900 cases for the past year, and this is attributed to the following causes. In 1878 the vaccinators did a large number of cases in famine camps, but in 1879 the camps were all closed; also for the past year the staff was incomplete for some time owing to the absence of many vaccinators on privilege and sick leave. Fever was prevalent to a great extent throughout the circle and some vaccinators were given cinchona powder to distribute to the people. First-class Vaccinator Zorahally Sherriff, No. 355, did the largest number of operations among the staff. The Deputy Inspector states that vaccination is backward in Palmanér Taluk as well as in Punganúr and Kangundi Zemindaris. This, he says, is owing to the ignorance of the people who prefer inoculation to vaccination. In the Wálajápet Taluk, however, vaccination is carried on well. The Deputy Inspector suggests, for the improvement of vaccination in the above-named places, the system of working in groups. Small-pox was not prevalent to any extent in the circle during the year. The Deputy Inspector recommends that all pupils of result grant and grant-in-aid schools be vaccinated and that no grant be allowed for those who are not. All village officials also should have their children vaccinated as an example and the names of village headmen who take particular interest should be notified in the District Gazette. Probationary Vaccinators since November last have been learning their work under the Medical Officers so as to qualify them for the post of Second-class Vaccinators. The Local Fund Board has issued orders to stop the pay of all vaccinators who do not reach the minimum of work, and the Deputy Inspector states that the standard number of cases fixed for vaccinators is too low. The number vaccinated under one year of age was 1,061 (comprising 534 males and 527 females) against 1,209 for 1878. First-class Vaccinator Venkatarunga Row did the largest number, viz., 262 cases among the staff. No travelling allowance is granted to vaccinators. One Second-class Vaccinator Cundasawmy Moodelly was rigorously imprisoned for a week with a fine of Rs. 10 for misconduct by the Sub-Magistrate of Tirupati Division. He was also suspended from duty for the same offence for nearly two months and warned that a further report would entail summary dismissal from the service. Twenty-six vaccination certificates were granted to candidates who appeared for Government examinations. The conduct of the staff was good with the exception of the above-named individual. The Deputy Inspector acknowledges with thanks the assistance he has received from Mr. W. S. Whiteside, the Collector, Mr. Welsh, the Assistant Collector, and the Tahsildar of Wálajápet Taluk. The cost of each successful operation was Annas 6 and Pies 4 against 3 annas 7 pies for 1878.

On the 14th March 1879 I went on to Punganúr where I was met by the First-class Deputy Inspector of the Chittoor Circle. At Punganúr I saw a good many old cases with well-marked cicatrices done by First-class Vaccinator Moonisawmy Pillay of the Punganúr Taluk. There does not seem to be much objection to vaccination among the people in Punganúr, but very little work is done. In January 1879 First-class Vaccinator Moonisawmy Pillay vaccinated only 20, and in February 30. This man's register was carelessly kept and many of the columns in it were blank. His instruments were in good order, and he had many tubes of lymph.

At Punganúr I also saw Second-class Vaccinator Cathirvaloo Pillay of Punganúr Taluk. This man vaccinates very few cases: in February he only did 21. His register was very carelessly kept, many of the columns being blank. The Deputy Inspector does not appear to have examined these registers carefully.

On the 15th I went on to Palmanér from Punganúr. The Deputy Inspector had ordered the vaccinator of Palmanér Taluk to be at Palmanér, but he was not to be found. This vaccinator, the Deputy Inspector states, is careless and does very little work.

On the 15th I left Palmanér and arrived on the 16th at Chittoor where I remained till the evening of the 17th. At Chittoor I met the two vaccinators belonging to the Chittoor Taluk, viz., First-class Vaccinator Cawder Moideen and First-class Vaccinator Moonelal Singh. They showed me some lymph subjects, but the lymph did not appear good. I saw some old cases which had been vacccinated by these vaccinators and most of them had each six well-marked cicatrices. The registers and instruments belonging to these men were well kept.

There are four probationers belonging to the Chittoor Circle to work in Chittoor and two go out with the two First-class Vaccinators of the Chittoor Taluk. I saw some lymph subjects which had been vaccinated by these probationers, but the lymph was not good: most of these cases had only two small vesicles each. The registers and instruments belonging to these probationers were well kept. When at Chittoor I examined the records, &c., belonging to Mr. Henricus, First-class Deputy Inspector of the Chittoor Circle. All his books were most carelessly prepared: some had no index, and many letters and circulars were not copied correctly. In January 1879 this Deputy Inspector wrote saying that the vaccinators' service books were written up to date. This was untrue, as not only had some of the service books no entries in them, but some of the vaccinators had not even been provided with service books. The service book belonging to First-class Vaccinator Moonelaul Singh had not a single entry in it. The weekly diaries showing where the Deputy Inspector had been and the dates of inspections in the vaccinators' registers did not agree in some cases.

The list showing the books, instruments, &c., which belonged to the Deputy Inspector R. Henricus was incorrect.

As this Deputy Inspector's work was most unsatisfactory, and as he has been very careless for some time past, I have reduced him to second class as a punishment.

VELLORE CIRCLE.

Establishment.

1 First-class Deputy Inspector—Mohomed Ibrahim.
5 Do. Vaccinators.
3 Second-class do.
2 Probationary do.
1 Peon.
1 Estate Vaccinator.
Area—1,633 square miles.
Population—638,861.

The total number vaccinated in this circle was 4,798 operations. Of these 332 cases were done by the Zemindari Vaccinator employed in the Arni Jaghire.

On comparing the total vaccinated for 1878 with that for 1879 there is found a decrease of 12,354 cases for the past year. The decrease is owing to no temporary vaccinator having been employed during the past year, whereas in 1878 there were five, and also to the famine camps and nurseries having been closed in 1878. Fever prevailed to a great extent throughout the circle. On comparing the work done by each establishment for 1878 and 1879 the Local Fund staff shows a falling off of 3,093 cases and the zemindari 1,498 for the past year. The Deputy Inspector of Vaccination of this circle was at the end of the year found quite unfit for his post and dismissed from the service. One Mr. A. L. Daily was appointed in his place. Vaccination in this circle is backward and there is great difficulty in carrying on arm-to-arm vaccination. First-class Vaccinator A. Comarasawmy vaccinated the largest number of cases, viz., 719 in the circle. 655 infants under one year of age were vaccinated (comprising 343 males and 312 females) against 929 for 1878. The average percentage of success was 85·33, and the cost of each successful case 10 annas and 9 pies against 3 annas and 6 pies for 1878.

On the 17th March 1879 I left Chittoor and arrived at Vellore. On the 18th I examined the work of the two Second-class Municipal Vaccinators and saw many old cases with well marked cicatrices and also some lymph subjects with well raised vesicles. The registers and instruments belonging to these vaccinators were well kept.

I examined the records, &c., belonging to First-class Deputy Inspector C. Aroomooga Chetty, who was then in charge of the Vellore Circle, and found them neatly kept and written up to date.

On the 27th November 1879 I left Madras and went on to Vellore. Vaccination in the Vellore Circle is backward, and the vaccinators do not much work.

When I was at Vellore the Deputy Inspector Mohomed Ibrahim was being tried by the Sub-Collector for having made wrong entries in his travelling allowance bills. I was present one day at the trial, and from evidence which was produced it was quite evident that the man was unfit to be a Deputy Inspector. His books were most carelessly prepared, and he disobeyed orders given him at Vellore.

There was only one Second-class Vaccinator working in the Vellore Municipality, the vaccinatrix having resigned. More cases should be vaccinated every month in this municipality, and it would be good plan to give the children vaccinated some batta.

SALEM DISTRICT—HOSÚR CIRCLE.

ESTABLISHMENT.

1 Second-class Deputy Inspector—Mohomed Allaudeen.
3 First-class Vaccinators.
6 Second-class do.
7 Probationary do.
1 Peon.
Area—2,825 square miles.
Population—553,896.

The total number vaccinated in this circle during the past year was 9,602 with a percentage of 91·22 of success, and the results in 384 cases were not found. The numbers vaccinated during 1878 and 1879 are as follows:—

1878	11,978
1879	9,602

showing a decrease of 2,376 cases for the past year. The decrease was due, first, to the employment of temporary vaccinators in 1878, but none worked in 1879; second, to the absence of vaccinators on leave, &c., during the past year; and, thirdly, to the prevalence of fever throughout the circle. First-class Vaccinator Khader Moideen vaccinated the largest number, viz., 1,073. During the year 863 infants were vaccinated under one year of age against 873 for 1878. Deputy Inspector of Vaccination C. Poonoosawmy of this circle was promoted to first class and posted to the Kurnool District. The present Deputy Inspector was reduced from the first class and transferred to this circle from Chitterpore in November 1879. The Deputy Inspector states that during the year fever was very prevalent in the circle, and a few of the vaccinators suffered from it and had to go on leave. The Deputy Inspector suggests, for the improvement of vaccination, that village and taluk authorities be made to interest themselves in the work of vaccination as a part of their duties, and that they should have their children vaccinated first. Also that the vaccinators should receive from the village heads a list of the children born since their last visit. In the Krishnagiri Taluk the Deputy Inspector states that no assistance is rendered to vaccinators. Small-pox was not prevalent in the circle during the year. The conduct of the staff was fairly good with the exception of a few men. No batta to mothers for supplying lymph was spent. The cost of each successful case was Annas 4 and Pies 2 against 4 annas and 10 pies for 1878.

SALEM CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—M. Narrainah.
6 First-class Vaccinators.
14 Second-class do.
4 Probationary do.
1 Peon.
Area—4,779 square miles.
Population—1,363,087.

The total number vaccinated during the past year was 9,115, comprising 4,941 males and 4,174 females. The results were 8,797 successful, 120 unsuccessful, and 198 unknown. On a comparison being made with the work for 1878 there is found a decrease of 8,045 cases for 1879, and this decrease is due to numbers having been vaccinated in 1878 in famine camps and road works; to the prevalence of fever and sore-eyes throughout the circle, and to many vaccinators having been on leave. First-class Vaccinator C. Moonisawmy, No. 234, did the largest number of operations, viz., 821, and First-class Vaccinator C. Rungasawmy, No. 307, the largest number of children under one year of age, viz., 194. Objections to vaccination exist in this circle and vaccination should be made compulsory. Small-pox was not reported during the year. 606 infants under one year of age were vaccinated (consisting of 326 males and 280 females) against 412 for 1878. Deputy Inspector of Vaccination Meer Muzzerally of this circle was transferred in November 1879 to the Cuddapah Circle, and the present man joined from the Northern Districts. The cost of each successful case was 6 annas and 3 pies against Annas 3 and Pies 6 for 1878.

SOUTH ARCOT DISTRICT—CUDDALORE CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—Mr. A. Stewart.
5 Do. Vaccinators.
8 Second-class do.
1 Peon.
Area—3,370 square miles.
Population—1,101,324.

The number vaccinated during the past year was 10,643 with a percentage of 88·24 success, and the results in 780 cases were not known. On comparing the work for the past year with that for 1878 there is found a decrease of 943 cases, and this the Deputy Inspector attributes to there having been no temporary vaccinators employed in 1879, whereas in 1878 there were two. If the temporary vaccinators' cases are excluded from the total, then there is an increase of 293 cases for 1879 over the work done by the permanent staff for 1878. The number of cases vaccinated under one year of age was 1,419 (comprising 750 males and 669 females with a success of 91·26 per cent.) against 93·07 for 1878. Small-pox was prevalent in some of the taluks, but not to a great extent, and the Deputy Inspector states that many deaths from measles were returned as deaths from small-pox in the register of deaths kept by village heads. The prejudice, &c., of the people in regard to vaccination is gradually dying out. The importance of infantile vaccination was strongly impressed on vaccinators, and the Deputy Inspector states that the vaccinators were ordered to try their best to vaccinate the infant population. He says that if village officials would co-operate with vaccinators in pushing on vaccination that much work might be turned out. At present the Tahsildar of Tindivanam sets an example in this. The largest number vaccinated under one year of age was 322, and they were done by First-class Vaccinator Aroonachellum, No. 128. First-class Vaccinator Venketachellum did the largest amount of work, viz., 1,545. No money was spent on batta to mothers for supplying lymph. Ten vaccination certificates were granted to candidates during the year. There were no changes among the vaccinators except the transfer of one Local Fund Vaccinator to the Municipality of Cuddalore on promotion. The lymph in use was good and the conduct of the vaccinators satisfactory. The cost of each successful operation was 4 annas and 10 pies against 4 annas and 8 pies for 1878.

On the 7th August 1879 I left Acharapákam and went on to Tindivanam where I was met by First-class Deputy Inspector Mr. Stewart of the Cuddalore Circle.

The vaccinator who works in Tindivanam is First-class Vaccinator Aroonachellum Moodelly, and I saw many old cases which had been vaccinated this year by him. Most of the cases had well-marked cicatrices. I saw two lymph subjects and the

lymph in use appeared good. In six pial schools which I visited I found 32 had been vaccinated, 56 were unprotected, and 18 had small-pox marks. A great many young children are still to be vaccinated in Tindivanam, as nearly all the children I saw under two years of age in the streets were unprotected. The register and instruments belonging to First-class Vaccinator Aroonachellum Mudaly were well kept.

On the 9th August I left Tindivanam and went on to Villupuram. Vaccination at Villupuram is backward. I saw some old cases which had been vaccinated by First-class Vaccinator P. Venketachellum of the Villupuram Taluk, but in these the cicatrices were not well marked and few had six. Some children who had been vaccinated four days before were shown me, but the lymph in use was not good. I visited five schools and found out of 149 boys only 40 had been vaccinated, 90 were unprotected, and 19 had small-pox marks. First-class Vaccinator P. Venketachellum had his register written up to date and was neatly kept. His instruments were clean, but he had no tube lymph, only lymph between glass plates.

While at Villupuram I saw some good lymph subjects which had been vaccinated at Shiyáli by Second-class Vaccinator Veerasawmy Naidu of the Vikravándi Division. The lymph used by this man seemed good. His register and instruments were well kept, but he had a very small supply of lymph.

At Panruti I saw six lymph cases which had been vaccinated by Second-class Vaccinator Venkadapathee Naidu of the Panruti Division. The lymph in use was good, and this man's register and instruments were well kept.

On the 10th I left Villupuram and went on to Cuddalore.

There is one First-class and two Pupil Vaccinators employed by the Cuddalore Municipality. The First-class Vaccinator, viz., Mootoosawmy Moodelly, only joined on 1st July, as the man before, who does not appear to have worked well, resigned. In July the present man did 68 cases, and the vaccinator stated that there was a great difficulty in getting lymph from the arms of vaccinated children. Vaccination is very backward in Cuddalore. Each subject gets half an anna at the time of operation, and if lymph is allowed to be extracted half an anna is also given. I visited some schools and found that out of 124 boys only 32 had been vaccinated, 80 were unprotected, and 12 had small-pox marks. I saw some lymph cases and the lymph in use appeared good. Most of the old cases I saw had well-marked cicatrices, but in the vaccinator's register the numbers in columm "Number of Successful Vesicles" were not entered correctly. The Municipal Vaccinator does not know English. He had no lymph of any kind.

The two Pupil Vaccinators are attached to the two dispensaries, and from January to July did 195 cases; of these 122 were successful, 32 unsuccessful, and 41 unknown.

While at Cuddalore I saw First-class Vaccinator Coopoosawmy Naidu of the Cuddalore Taluk. This man only does about 54 cases a month, and he does not appear to be very active. His register and instruments were well kept, but he had only three tubes filled with lymph.

First-class Vaccinator Khader Beg of the Trinomallee Taluk does about 60 cases a month, and more ought to be done.

The Deputy Inspector of Vaccination of the Cuddalore Circle, who has only been a short time in the circle, seems to be working well. His records were all written up to date and correctly kept.

VRIDHACHALAM CIRCLE.

ESTABLISHMENT.

1 Second-class Deputy Inspector—V. Chinnacasavaloo.
3 First-class Vaccinators.
3 Second-class do.
2 Probationary do.
Area—1,566 square miles.
Population—598,684.

The total number vaccinated in this circle during the past year was 5,028 with a percentage of 90·15 success. The results in 251 cases were unknown. Of the total vaccinated 2,627 were males and 2,401 females. On comparing the work of the preceding year with that for 1878 there is an increase of 416 operations in 1879; 484 of the cases vaccinated were under one year of age against 397 for 1878. The increase in the number of cases vaccinated for the past year is greatly due to the interest taken by the Vice-President of the Local Fund Board in vaccination. The obstructions to vaccination among the people the Deputy Inspector thinks are gradually dying out, but there are great difficulties experienced in carrying on arm-to-arm vaccinations, as the mothers will not allow lymph to be taken from their children's arms. The lymph in use was good. Small-pox was prevalent in the circle to some extent, and the infected localities were immediately on the reports being received visited and the unprotected vaccinated. No batta was allowed to mothers for furnishing lymph, and the Deputy Inspector thinks if this were done vaccination would be more successfully carried on. First-class Vaccinator Coomarasawmy, No. 806, vaccinated the largest number of cases, viz., 922 among the vaccinators. The Deputy Inspector states that no travelling allowance is sanctioned either to him or the vaccinators. The conduct of the staff was generally good. The staff was not complete during the year. A vaccinator's post was vacant for a month and a half and a few vaccinators were on leave for short durations. The Deputy Inspector urges that compulsory vaccination be brought into force in this circle as is only the way of successfully pushing on vaccination. The cost of each successful operation was Annas 6 and Pies 2, and for 1878 Annas 6 and Pies 5.

On the 15th August 1879 I went on to Chidambaram. At Chidambaram vaccination is very backward. There is one Second-class Vaccinator, viz., Damodera Naidu, who vaccinated from 1st January to 31st July only 287 cases. Of these 44 were under one year of age, while the births for the same time have been 194. The number of deaths from small-pox from January to July were 39, and 11 of these were under one year of age. I saw some lymph subjects which had been vaccinated by this Municipal Vaccinator, but the lymph in use was bad and few of the cases had six vesicles. I ordered the Deputy Inspector to send a supply of good lymph to this man. One anna is given by the Municipality to each successful case. I visited two small pial schools and found that out of 27 boys only 3 had been vaccinated, 15 were unprotected, and 9 had marks of small-pox. Most of the schools were closed as it was a holiday the day I went round the town.

The Deputy Inspector of the Vridháchalam Circle inspects this man's work, but I think it would be better if the Honorary Assistant Surgeon, who is in charge of the dispensary, would do so. He could also have the successful cases brought to the dispensary and pay them the one anna each.

The Municipal Vaccinator's register and instruments were well kept.

At Chidambaram I saw Probationary Vaccinator T. Manickum of the Vridháchalam Circle. This man goes about with the Deputy Inspector, but I think it would be better if he accompanied a good First-class Vaccinator to learn his work. This man was only appointed in June, and during June and July vaccinated 26 cases. His register was correctly kept, but his instruments were dirty, and he had no lymph of any kind.

On the 18th I went on to Koorinjapadi where I was met by the Second-class Deputy Inspector of Vridháchalam Circle.

In a village on the road to Vridháchalam from Koorinjapadi I saw 20 cases which had been vaccinated in May and June by First-class Vaccinator Narrainsawmy Naidu of the Vridháchalam Taluk. These had all well-marked cicatrices. At Vridháchalam I saw some lymph subjects done by this same vaccinator and the lymph in use appeared good. The old cases I saw at Vridháchalam had well-marked cicatrices, but in the vaccinator's register the figures in column "Number of Successful Vesicles" were entered wrongly. First-class Vaccinator Narrainsawmy Naidu has vaccinated from 1st January to 31st July 439 cases; of these 74 were under one year of age. The Deputy Inspector, who joined the Vridháchalam

Circle in May 1879, has verified only 20 cases of this vaccinator's work. This vaccinator's register was neatly kept, but his instruments were dirty.

Vaccination at Vridháchalam is on the whole backward. I visited some schools and found the following results :—

—	Vaccinated.	Unprotected.	Marks of Small-pox.
Government Middle School	15	13	7
Three Pial Schools	13	20	9
Total ...	28	33	16

From 1st January to 31st July there had been 18 deaths from small-pox.

At Vridháchalam I saw Probationary Vaccinator Gopaulsawmy Naidu who does on an average 36 cases a month. His register was neatly kept, but his instruments were not clean. The preserved lymph he had did not look good.

The Second-class Deputy Inspector of Vaccination, Vridháchalam Circle, is an old man and is not active. His knowledge of English is very slight indeed, and he is stupid. His records were carelessly and incorrectly kept.

On the 25th I left Vridháchalam and went on to Chettia Tope.

At Coomapooram, a village eight miles from Vridháchalam on the road to Chettia Tope, I saw some old cases which had been vaccinated by First-class Vaccinator Narrainsawmy Naidu of the Vridháchalam Taluk. These cases had all well-marked cicatrices.

At Valayamathary, a village 12 miles from Vridháchalam, I saw 30 cases with well-marked cicatrices. These children had been vaccinated by Vaccinator Sama Row in May and June. This man acted from April to June for Second-class Vaccinator Ramasawmy of the Bhuvanigiri Division who was suspended for three months. Vaccinator Sama Row's register was well kept for the three months he acted.

Second-class Vaccinator Ramasawmy of the Bhuvanigiri Division does on an average 30 cases a month, and he ought to do a great many more. His register and instruments were well kept, but he had no lymph bottle. He stated that Vaccinator Sama Row lost the bottle.

At Chettia Tope I saw Second-class Vaccinator S. Somasundrum Pillay of Porto Novo Division. This man knows English and was appointed a Second-class Vaccinator in February 1879. From 1st January to 31st July this man has vaccinated 351 cases, and of these only 6 were under one year of age. His instruments and register were well kept.

At Chettia Tope there is a village called Allore and in July, August, and September 1877, 21 cases were vaccinated there. I saw 15 of these cases and all had well-marked cicatrices. Since September 1877 no vaccination has been done in this village.

On the 26th I left Chettia Tope and went on to Lalpet.

In most of the villages on the road to Lalpet from Chettia Tope no vaccination has been done for two or three years.

At Lalpet and Malepathy I saw some lymph subjects which had been vaccinated by First-class Vaccinator Koomarasawmy of the Mannargudi Taluk. The lymph in use did not appear good, and the cases I saw had only in a few cases six well-marked cicatrices. In two small pial schools I found 7 had been vaccinated, 8 were unprotected, and 4 had marks of small-pox.

At Mannargudi, which is two miles from Lalpet, I saw some old cases which had been done by First-class Vaccinator Koomarasawmy. Most of these cases had well-marked cicatrices. I visited the Local Fund Board school and found that out of 36 boys 15 had been vaccinated, 18 were unprotected, and 3 had marks of small-pox

First-class Vaccinator Koomarasawmy was only lately transferred to the Mannargudi Taluk from Porto Novo. He has vaccinated from 1st January to 31st July 499 cases, and of these 26 were under one year of age. Since January 1879 this vaccinator's work has not been inspected by the Deputy Inspector.

At Mannargudi the people asked that a caste man might be sent as vaccinator as they objected being vaccinated by the present man who is a Christian. Nearly all the cases of vaccination I saw at Mannargudi were Christians.

SOUTH CANARA DISTRICT—No. I SOUTH CANARA CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—Tarachund.
3 Do. Vaccinators.
4 Second-class do.
4 Probationary do.
1 Peon.
Area—2,282 square miles.
Population—558,350.

This district was divided into two vaccine circles and a Deputy Inspector appointed to each in the beginning of 1879. The total number vaccinated in this circle during the past year was 5,707 with a percentage of 89·04 of success, and the results in 343 cases were unknown. On comparison with the work done in the taluks of this circle for 1879 with that for 1878 there is found a decrease of 2,558 cases in the past year, and this is due to the absence of six vaccinators on leave, &c. M. Mascarnehas, No. 68, vaccinated the largest number, viz., 946. There were two vaccinators dismissed from the vaccine staff during the year. Obstructions to the spread of vaccination still exist and the village officials do not take much interest in pushing on vaccination. Small-pox broke out in some parts of the circle during the year, and on the reports being received by vaccinators measures were at once taken to vaccinate all the unprotected. The Deputy Inspector states that Mr. W. H. Comyn, the President, and Mr. B. Legatte take a warm interest in vaccination. The Deputy Inspector suggests that vaccinators without reference to their grades be allowed 4 annas travelling batta for every working day. The total number vaccinated under one year of age was 172 (comprising 76 males and 96 females). Nineteen vaccination certificates were granted to candidates who appeared for Government examinations. The conduct of the staff with the exception of a few was satisfactory, and the lymph good. The cost of each successful case was Annas 6 and Pies 9.

No. II SOUTH CANARA CIRCLE.

ESTABLISHMENT.

1 Second-class Deputy Inspector—P. Chandoo.
2 First-class Vaccinators.
3 Second-class do.
4 Probationary do.
1 Peon.
Area—2,111 square miles.
Population—330,300.

The South Canara District was divided into two vaccine circles in the beginning of 1879 and a Deputy Inspector appointed to each. This circle, viz., No. II, comprises two taluks with an area of 2,111 square miles. The Deputy Inspector reports 7,030 cases of vaccination against 5,521 of 1878, showing an increase of 1,509 cases for the past year. Second-class Vaccinator T. B. Krishnen performed the largest number of operations, viz., 1,514. The increase would have been greater had not some of the vaccinators been on leave. The people of this district come forward willingly to be vaccinated only when small-pox makes its appearance, but at other times they refuse to submit to the operation. Compulsory vaccination is recommended by the Deputy Inspector for the more effectual spread

of vaccination. If Potails gave assistance vaccination could, however, be pushed on to a greater extent. In the months of June and July small-pox made its appearance in a village called Tricarapooram of Kásaragód Taluk, and on the reports being received vaccinators were sent out to vaccinate the unprotected in the village and its vicinity. It would be well if the Village Potails could be induced to submit their children and families to the operation first so as to set an example to the villagers. Copies of treatises on vaccination in Malayalum and Canarese should be distributed to the Village Potails as well as to educated people. Only 84 cases were vaccinated under one year of age in this circle, and infantile vaccination is very backward. Vaccination in Kásaragód is backward owing to the people who inhabit this part being almost all Numboories, Nairs, and Thiers who do not know the benefit of vaccination. For this division the Deputy Inspector suggests that a caste Malayalee Vaccinator be appointed, as he thinks that more work might then be turned out. The vaccine lymph in use was good and the cost of each successful case Annas 4 and Pies 9. Eleven vaccination certificates were granted to candidates during the year.

TANJORE DISTRICT—NEGAPATAM CIRCLE.

Establishment.

1 First-class Deputy Inspector—Moortuza Hussain.
5 Do. Vaccinators.
6 Second-class do.
1 Peon.
3 Second-class Temporary Vaccinators.
1 Temporary Probationer.
Area—1,518 square miles.
Population, 819,981.

The Deputy Inspector of Vaccination reports that 31,722 cases were vaccinated in this circle for the past year with a percentage of 93·40 of success. Of these 894 were performed by the temporary staff. On comparing the numbers vaccinated for 1879 and 1878 there is found the following results :—

	Vaccinated.	Increase.
For 1878	17,901	13,821
„ 1879	31,722	

This increase is due to the great interest taken by the President of the Local Fund Board and also to the employment of a few temporary vaccinators for a short period. The largest number of cases (viz., 6,899,) were vaccinated by First-class Vaccinator Vurdarajooloo Naidoo, and this man has been first on the list for the past four years. The average number vaccinated by each vaccinator was 1,510. The present Deputy Inspector only assumed charge of his office on the 1st November 1879 as his predecessor was transferred to the Ganjam Maliahs. The Deputy Inspector states that in some parts of the circle there are objections to vaccination among the Lubbays and uneducated Hindus, and he suggests that the Mirasidars and village officials should have their own children vaccinated first, for if such were done he thinks that many would then submit to the operation. It would be better, however, to make vaccination compulsory. In the Tiruturaipúndi Taluk alone the number vaccinated was 21,752, and this was mainly due to the assistance rendered by the Tahsildar of the taluk. The number of infants vaccinated under one year of age was 1,496, and this when compared with that for 1878 shows an increase of 139 cases. The character of the staff of vaccinators was generally good, and the vaccine lymph in use effective. No small-pox was reported during the year as prevalent in the circle. The cost of each successful case was Anna 1 and Pies 6 against 3 annas for 1878.

On the 31st August 1879 I left Kumbakónam and arrived at Máyavaram where I remained till 2nd September. Here I was met by the First-class Deputy Inspector of the Negapatam Circle.

There is a First-class Vaccinator, viz., C. D. Ramachandra Pillay, employed by the Municipality of Máyavaram. He was only appointed on the 15th May 1879 and before that was the Deputy Inspector's Peon. He had frequently, however, acted as a Second-class Vaccinator and was the only man among the Second-class Vaccinators who appeared before the Civil Surgeon, Negapatam, for examination found fit to be promoted to first class. This man from 22nd May to 31st August vaccinated 159 cases; none of these were under one year of age. The lymph cases which I saw were not successful and the lymph in use did not appear good. The man uses glass lymph too much. Of the 159 cases only 89 had been vaccinated from arm to arm. This man's instruments were clean and his register was neatly kept. He had lymph in tubes and between glass plates, but no lymph bottle had been supplied to him.

The vaccinator who worked in Máyavaram before 15th May was appointed First-class Municipal Vaccinator at Negapatam; from January to May he vaccinated 231 cases in Máyavaram. Vaccination in Máyavaram is backward among the weaver caste, but not so among Brahmins. From 1st January to 31st August 390 cases had been vaccinated, while the births alone for that time were 418. From the beginning of the year there had been 28 deaths from small-pox, 5 being under one year of age, 17 above one year of age and under six, and 6 above six years. No batta is given to vaccinated children, and this might be tried to induce people to have their children done.

In the four municipal schools which I visited, and which were principally attended by Brahmin and Sudra children, I found out of 289 pupils 166 had been vaccinated, 61 were unprotected and 62 had marks of small-pox.

In the pial schools which were principally attended by children belonging to the weaver caste I found that out of 223 scholars 75 were vaccinated, 94 unprotected, and 54 had marks of small-pox.

On the 2nd September I went to Shiyáli returning to Máyavaram on the 3rd.

At Shiyáli I saw some work which had been done by First-class Vaccinator Venkatasawmy Pillay of the Shiyáli Taluk. The lymph subjects were very successful, and the lymph in use good. Some old cases which I saw had each six well-marked cicatrices. This vaccinator, viz, Venkatasawmy Pillay, seems to work well and knows English slightly. He was formerly Municipal Vaccinator at Negapatam and was only appointed to Shiyáli Taluk in May 1879. In June he vaccinated 348 cases, in July 331, and in August 252. The vaccinator who worked in Shiyáli Taluk before May did on an average 60 cases a month.

First-class Vaccinator Venkatasawmy Pillay's register was neatly kept, but in the column "Number of Successful Vesicles" the figures were not always correct. His instruments were clean, but he had no tube lymph.

Infantile vaccination is, however, backward in the Shiyáli Taluk, for out of the 931 cases done by Venkatasawmy Pillay only 60 were under one year of age. Arm-to-arm vaccination is well carried on by this vaccinator and 879 cases were successful out of the 931. The Deputy Inspector had only verified 67 of this man's cases.

I visited three schools and found that out of 100 scholars 31 were vaccinated, 47 unprotected, and 22 had marks of small-pox.

At Máyavaram on the 3rd September I saw some lymph subjects which had been done by First-class Vaccinator Moothoovaloo Moodelly of the Máyavaram Taluk. The lymph in the cases was not good. From 1st January to 31st August 1879 this vaccinator had vaccinated 836 cases; of these 823 were successful, 77 under one year of age, and 715 vaccinated from arm-to-arm. His register was clean, but his instruments were dirty. The tube lymph which he had was bad.

On the 4th September I left Máyavaram and went on to Tranquebar where I remained till the 6th.

At a village five miles from Máyavaram I saw 4 lymph subjects and 23 cases which had been vaccinated in July by Vaccinator Moothoovaloo Moodelly of the Máyavaram Taluk. The old cases had well-marked cicatrices and the lymph in

the recent subjects appeared good. In the column "Number of Successful Vesicles" and "Age" the entries were in many cases wrong.

At Aakoor, a village in the Tranquebar Division, I saw some cases which had been done in January by Second-class Vaccinatrix Thungum, and the cicatrices in these subjects were good.

I visited two schools in Aakoor and found that out of 29 scholars 10 had been vaccinated, 17 were unprotected, and 2 had marks of small-pox.

At Tranquebar and the villages situated outside of the fort I saw some old cases which had been done by Vaccinatrix Thungum. In all these cases the cicatrices were well marked, but the "Number of Successful Vesicles" were not entered correctly.

Second-class Vaccinatrix Thungum of the Tranquebar Division seems a hardworking woman and has nine years' service. She can neither read nor write, but her husband, who always accompanies her and who formerly was a vaccinator, keeps the register for her. From January to August 1879 this vaccinatrix vaccinated 888 cases. Of these 86 were under one year of age, 549 from arm to arm, and 783 successful. The Deputy Inspector had only verified 47 of her cases, and all these cases were in Tranquebar. Her register was not correctly kept, but her instruments were in good order. Her lymph bottle was cracked and it had no cover.

Infantile vaccination is backward in the Tranquebar Division. The births in Tranquebar alone were from January to August over 200, but the number of children vaccinated in the whole division under one year of age only 86. The deaths from small-pox from January to August in Tranquebar were 11.

On the 6th I left Tranquebar and went on to Negapatam where I remained till the 10th.

The Negapatam Municipality employs two vaccinators, one first and one second class.

First-class Vaccinator Veerasawmy was only appointed to the Negapatam Municipality in May 1879; before that time he was Municipal Vaccinator of Máyavaram. He does on an average about 60 cases a month. From January to August 459 cases have been vaccinated by the First-class Vaccinator; of these 432 were successful, 421 were done from arm to arm, and 106 were under one year of age.

First-class Vaccinator Veerasawmy's register was neatly kept, but the names should be entered in it daily. His instruments were in good order and he had some good tube lymph. I saw some lymph subjects which had been done by him and they were very successful.

The Second-class Municipal Vaccinator, viz., Iyasawmy Pillay, was on the sick list and had done no work since the 30th of August. He does on an average 36 cases a month. His register, which is in Tamil, was neatly kept. The tube lymph which he had was bad; no lymph bottle has ever been supplied to him. From January to August this man vaccinated 298 cases; of these 294 were successful, 285 from arm to arm, and 62 were under one year of age.

Vaccination in the Negapatam Municipality is backward. Thus from January to August the total number vaccinated is 759; of these 174 were under one year of age, while the births for the same period were 616. I visited some schools and found the following results :—

——	Vaccinated.	Unprotected.	Marks of Small-pox.
Two Pial Schools composed chiefly of Hindu children	8	37	6
One Pial School composed chiefly of Mahomedan children	10	17	5
Two Municipal Schools	33	53	44
Total ...	51	107	55

When at Negapatam I saw some lymph cases which had been vaccinated by First-class Vaccinator T. Appasawmy Pillay of the Negapatam Taluk in a village four miles away. The lymph in all these cases was good. In the Negapatam Taluk

from January to August 686 cases had been vaccinated; of these 435 were successful, 81 under one year of age, 438 done from arm to arm, and 15 had been verified by the Deputy Inspector. His register and instruments were in good order, but the tube lymph he had was bad.

While at Negapatam I examined the records of the Deputy Inspector of Vaccination. They were written up to date. This man is very stupid and lazy, and I intend removing him from this circle.

For 1878 there had been 19,346 cases vaccinated in this circle, and of these only 2,372 had been verified. This Deputy Inspector, however, only joined this circle in June 1878.

On the 11th I went on to Triválúr from Negapatam.

The man who was then working in the Tiruválúr Division was temporary Second-class Vaccinator Kristnasawmy. The permanent Second-class Vaccinator of the Tiruválúr Division was sent in April to carry on vaccination in the Tiruturaipúndi Taluk, and as the temporary Second-class Vaccinator Kristnasawmy did not join till the 1st August no work was done in this division during May, June, and July. I saw some lymph subjects which had been done by this temporary vaccinator and the lymph in use was good. During August this man vaccinated 26 cases. His register and instruments were in good order.

I visited some schools at Tiruválúr and found the following results :—

——	Vaccinated.	Unprotected.	Marks of Small-pox.
Anglo-Vernacular Schools	52	63	64
Two Pial Schools	8	18	12
Total ...	60	81	76

While at Tiruválúr I saw First-class Vaccinator T. M. Ranojee Row of the Nannilam Taluk and Second-class Vaccinator Shaik Oosman Sahib of the Koodavasel Division.

First-class Vaccinator T. M. Ranojee Row has five and a half years' service and was transferred in June to the Nannilam Taluk from Negapatam Division. He does on an average about 70 cases a month. His register was well kept. He had three tubes of bad lymph and his lymph bottle had no case. The vaccinator who worked in this division before June was First-class Vaccinator T. Appasawmy, now of the Negapatam Taluk. His register from January to June was most carelessly prepared, but the Deputy Inspector does not seem to have noticed this. From January to August 637 cases were vaccinated in the Nannilam Taluk; of these 565 were successful, 42 were under one year of age, and 86 had been verified by the Deputy Inspector.

Second-class Vaccinator Shaik Oosman Sahib of the Koodavasel Division has four years' service. His register and instruments were in good order with the exception of his lymph bottle which had no case. From January to August this man vaccinated 477 cases; of these 33 were under one year of age and 9 had been verified by the Deputy Inspector.

TANJORE CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—B. Ramasawmy.
4 Do. Vaccinators.
12 Second-class do.
2 Probationary do.
1 Peon.
Area—2,221 square miles.
Population—969,738.

The total number of cases vaccinated in this circle (which comprises four taluks) was 24,341 with a success of 87·62 per cent. The results in 2,010 cases were unknown. Of the total 12,925 were males and 11,416 females. On comparing the numbers vaccinated for 1878 and the past year there is found for 1879 an increase of 9,015 operations, and this is due to the great interest taken by the President of Local Fund Board in pushing on vaccination. The average number vaccinated by each vaccinator is 1,352, and First-class Vaccinator Jaganadum Pillay performed the largest number of cases, viz., 2,500. No report was received from the Revenue Officials during the year regarding the appearance of small-pox. The number vaccinated under one year of age was 2,449, comprising 1,223 males and 1,226 females, showing an increase of 999 cases when compared with the work for 1878. Nineteen vaccination certificates were granted to candidates who appeared for examinations. The obstructions to the spread of vaccination vary in different parts of the circle, but on the whole they are not great, and assistance is given by the village officials. The Deputy Inspector states it would, however, be better if vaccination was made compulsory. The lymph in use was good and the conduct of the staff satisfactory. The cost of each successful case was Annas 2 and Pies 4 and for 1878 Annas 3 and Pies 10.

On the 12th September 1879 I left Tiruválúr and went on to Mannargudi, where I remained till the 14th. I was here met by the Deputy Inspector of Vaccination of the Tanjore Circle.

The Mannargudi Municipality employ one First-class Vaccinator, viz., Chuckrapany Iyah. This man has eleven years' service and his work is inspected by the Deputy Inspector. From January to August he vaccinated 725 cases; of these 650 were successful and 104 were under one year. The births from January to August were 176. I saw about 70 cases which had been vaccinated in August and September, and they were all very successful. The vaccinator's register and instruments were in good order. I visited five pial schools and found that out of 186 children 53 had been vaccinated, 86 were unprotected, and 47 had marks of small-pox. Since June the Tahsildar has been giving the vaccinator great assistance, and two Monegars accompany the vaccinator and persuade the people to get their children vaccinated. In January 53 cases were vaccinated, in February 57, in March 59, in April 54, in May 54, in June 77, in July 236, and in August 135. The weavers in this municipality object greatly to vaccination.

While at Mannargudi I saw First-class Vaccinator Jaganadum Pillay and Second-class Vaccinator Annathorai Pillay, both of the Mannargudi Division.

First-class Vaccinator Jaganadum Pillay has 14 years' service, but he does not know any English. From January to August he vaccinated 1,299 cases; of these 1,153 were successful and 154 were under one year of age. The present Deputy Inspector joined the Tanjore Circle in May, and since then has verified 95 cases out of 714, which have been vaccinated by this Vaccinator. I saw 20 lymph subjects which had been vaccinated by this Vaccinator, and the lymph was good in all. His register and instruments were in good order.

Second-class Vaccinator Annathorai Pillay has 3 years' service and knows very little English. From January to August this man vaccinated 637 cases; of these 603 were successful and 17 under one year of age. Since May 461 cases were vaccinated by this man, and 57 of these had been verified by the Deputy Inspector. This Vaccinator was granted one month's privilege leave in June. His register was not well kept, but his instruments were in good order.

On the 14th September I left Mannárgudi and went on to Tanjore, where I remained till the 17th.

At Nídámangalam, which is on the road to Tanjore from Mannárgudi, I saw eight cases which had been vaccinated in July by Second-class Vaccinator Shaik Ebrahim of the Nídámangalam Division. The cicatrices in these cases were well marked. This Vaccinator was promoted to Second Class in July, and before that was a paid probationer. From January to August this man vaccinated 568 cases (279 of these being done in July and August); of these 532 were successful, 74 under one year of age, and 363 verified by the Deputy Inspector. This Vaccinator knows very little English. His register was not very neatly kept, but his instruments were in good order.

The Tanjore Municipality employs one First-class Vaccinator and one Second-class Vaccinatrix.

First-class Vaccinator Pocala Guntiah Naidu has 37 years' service, 12 of which he has served in the Tanjore Municipality. From January to August this man vaccinated 726 cases. Of these 685 were successful, 716 vaccinated from arm to arm, and 230 were under one year of age. From 1st January to 30th April this Vaccinator only did 234 cases, but from 1st May to 31st August 492. His register and instruments were in fair order. He always vaccinates with a lancet. No capillary tubes have ever been supplied to this man, and he only preserves lymph between glass plates. I saw about 40 recent cases, but the lymph did not appear good: few of the cases had six vesicles.

Second-class Vaccinatrix Zeena Bee has 3½ years' service in the Vaccine Department, but has only been employed in this Municipality since April 1879. I saw about 20 recent cases which had been vaccinated by this woman, and the lymph in use appeared good. From April to August she vaccinated 220 cases; of these 197 were successful and 23 were under one year of age. She vaccinates both with a lancet and needles. No tubes had been supplied to this woman. Her register had many mistakes in it. This Vaccinatrix knows no English although her register is kept in English. She has a note-book which she keeps in a very rough way in Tamil, and a boy whom she employs to write up her register in English does so when he has time.

From January to August 1,064 cases were vaccinated in the Tanjore Municipality, and 261 of these were under one year of age. The births for the same period were 991, and the deaths from small-pox 10. Infantile vaccination is backward in this Municipality.

I visited some schools and found the following results:—

—	Vaccinated.	Unprotected.	Marks of Small-pox.
Mission Schools	89	73	21
Municipal Schools	30	34	11
Pial Schools	13	36	30
Total ...	132	143	62

While at Tanjore I saw First-class Vaccinator N. Ramagovindu Naidu of the Vallam Division and Paid Probationer M. Nadasum Pillay.

First-class Vaccinator N. Ramagovindu Naidu has four years' service and last July was promoted to First Class. He knows English fairly and seems a smart man. From January to August he vaccinated 1,324 cases; of these 371 were under one year of age and 777 were verified by the Deputy Inspector. His register and instruments were in good order and he had a fair supply of lymph.

Paid Probationer M. Nadasum Pillay was appointed in July and accompanies First-class Vaccinator N. Ramagovindu. He knows English slightly and does 50 cases a month. His register and instruments were in good order.

I examined at Tanjore the records, &c., belonging to the Deputy Inspector of Vaccination. They were written up to date and correctly kept. This man seems to work fairly well.

On the 18th I left Tanjore and went on to Sengiputty.

At Vallam, which is on the road to Sengiputty, I saw some lymph subjects which had been vaccinated by First-class Vaccinator Ramagovindu Naidu and Paid Probationer Nadasum Pillay. The lymph in use appeared very good. I visited a Mission School at Vallam and found that out of 85 children 27 had been vaccinated, 35 were unprotected, and 23 had marks of small-pox.

At Sengiputty vaccination was backward and most of the children I saw were unprotected. The people said that no Vaccinator had visited Sengiputty for a year. As the Vaccinator had lymph subjects at a village six miles from Sengiputty, I ordered him to have all the unprotected vaccinated next day.

TINNEVELLY DISTRICT—SHERMADEVI CIRCLE.

ESTABLISHMENT.

1 Second-class Deputy Inspector—V. Durmalingum Moodelly.
3 First-class Vaccinators.
7 Second-class do.
1 Probationary Vaccinator.
1 Peon.
2 Temporary Vaccinators.
Area—1,244 square miles.
Population—4,63,294.

The Deputy Inspector reports that 9,239 operations were done in this circle for the past year with a percentage of 86·12 of success. The comparative numbers vaccinated during 1878 and 1879 are as follow :—

1878	6,709
1879	9,239

thus showing an increase of 2,530 cases for the past year, and this is chiefly due to the exertions of Vaccinators. The Deputy Inspector states there would have been a larger number of cases done if one First-class and two Second-class Vaccinators had not been on privilege leave for a month each, and a First-class Vaccinator for a month and-a-half. First-class Vaccinator Abdool Azis performed the largest number of operations, viz., 1,459, among the Vaccinators. Objections to the spread of vaccination still continue. Native Christians, Vellalahs, and enlightened Brahmins are the only classes of people who readily submit to vaccination, and all other castes, such as Lubbays, Weavers, &c., strongly object to it. During the year small-pox was prevalent in the months of July, August, and September in the Ambásamudram Taluk. Two temporary vaccinators were employed with the sanction of the Local Fund Board to arrest the progress of the disease and to vaccinate all the unprotected in the infected localities. Nearly 600 cases were vaccinated by these temporary hands. Measures were also taken to vaccinate all the unprotected in Nánguneri Taluk, where small-pox prevailed to a slight extent. Vaccinators received great help from the Local Fund Board who ruled that no grant should be paid for any child attending result grant schools, &c., who is not certified by a Local Fund Vaccinator to have either been successfully vaccinated or had small-pox. This rule will greatly help to push on vaccination in Local Fund and Aided Schools. The number of subjects vaccinated for 1879 under one year of age was 875 against 549 done for 1878. Rs. 14 were spent on account of batta to mothers for supplying lymph. The cost of each successful case was 4 annas against 5 annas and 1 pie for 1878.

On the 19th October 1879 I left Tinnevelly and went on to Shermádevi, where I was met by the Second-class Deputy Inspector of the Shermádevi Circle.

At Shermádevi I saw some cases which had been vaccinated by Second-class Vaccinator Ponnappa Pillay of the Shermádevi Division and First-class Vaccinator Veerabudra Pillay of Veeravanellore Division. The old cases had well-marked cicatrices, and in the recent cases the lymph in use was good.

Second-class Vaccinator Ponnappa Pillay reported sick on the 13th October and was being treated at Ambásamudram Dispensary. I however saw his register which was kept in Tamil. From January to September he vaccinated 782 cases; of these 665 were successful, 705 from arm to arm, 42 under one year of age, and 447 were verified by the Deputy Inspector of Vaccination. Infantile vaccination in this division is backward: thus from January to September 42 children under one year of age were vaccinated in the division, while in Shermádevi alone the births for the same time were 188. I visited some pial schools and found that out of 87 children 22 were vaccinated, 37 were unprotected, and 28 had marks of small-pox.

An unpaid probationer, viz., Phillip Pillay, who has been learning the work for a year, was appointed to act for Second-class Vaccinator Ponnappa Pillay who was on the sick list. This vaccinator from the 13th to 19th October vaccinated 29 cases, and the lymph in the cases I saw was good.

First-class Vaccinator Veerabudra Pillay has 4½ years' service and knows no English. His register was neatly kept in Tamil and his instruments were clean, but he had no preserved lymph of any kind. From January to September he vaccinated 817 cases; of these 712 were successful, 610 from arm to arm, 66 under one year of age, and 665 were verified by the Deputy Inspector.

At Shermádevi I examined the records, &c., belonging to the Second-class Deputy Inspector of Vaccination. This man is stupid and lazy and has not improved since my last inspection of his work in February 1879 at Kurnool. He was reduced in April from First-class Deputy Inspector to Second Class.

On the 20th I left Shermádevi and went on to Ambásamudram, where I saw some more cases which had been vaccinated by First-class Vaccinator Veerabudra Pillay. The lymph in use was good and the cicatrices of old vaccination well marked. At Kalladaikurchi, which is one mile from Ambásamudram, I also saw some good lymph cases which had been vaccinated by this First-class Vaccinator.

In Kalladaikurchi and Ambásamudram vaccination is backward: thus from January to September the births in these two towns were 455, while the number of children vaccinated in the division (Veeravanellore Division) under one year of age was only 66. I visited some schools at Ambásamudram and found that out of 71 children 17 were vaccinated, 39 unprotected, and 15 had marks of small-pox.

From August to the beginning of October small-pox was very prevalent in the Ambásamudram Taluk and two temporary vaccinators were employed from 1st September to 11th October to vaccinate all the unprotected. 298 cases were vaccinated by these extra hands from 1st September to 11th October. The number of people attacked with small-pox in the Ambásamudram Taluk from June was 619 and the deaths 97.

On the 21st I left Ambásamudram and went on to Tenkási and Nannagarum.

At Tenkási I saw some old cases which had been vaccinated by First-class Vaccinator Abdool Azis. The cicatrices were well marked.

First-class Vaccinator Abdool Azis has 8 years' service, but does not know English. From January to September he vaccinated 931 cases. Of these 846 were successful, 726 from arm to arm, 165 under one year of age, and 563 were verified by the Deputy Inspector. His register was neatly kept, but there were no entries in it since the 29th September. His instruments were clean, but he had no preserved lymph of any kind.

Vaccination is backward in Tenkási. I visited some schools and found the following results :—

Vaccinated	28
Unprotected	53
Marks of Small-pox	27

From January to September First-class Vaccinator Abdool Azis vaccinated 165 children under one year of age, while the births in Tenkási alone (one town in his division) for that time were 295.

At Caddiam, a village between Tenkási and Ambásamudram, I saw some cases which had been vaccinated by Probationary Vaccinator D. Permaloo Naidu of the Caddiam Division. The lymph in use was good and the cicatrices of old vaccination well marked. This probationer from January to September vaccinated 696 cases. Of these 535 were successful, 502 from arm to arm, 13 under one year of age, and 467 were verified by the Deputy Inspector. His register was neatly kept in Tamil, but his instruments were dirty and he had no preserved lymph of any kind.

TINNEVELLY CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—W. P. Chuckrapany.
6 do. Vaccinators.
10 Second-class do.
12 Probationary Vaccinators.
Area—3,573 square miles.
Population—1,181,111.

The Deputy Inspector reports that 21,369 cases were vaccinated during the past year. Of these 19,232 were successful, 1,018 unsuccessful, and 1,119 unknown. On comparison being made with the total number vaccinated for 1878 there is found a decrease of 996 cases for 1879, and this the Deputy Inspector attributes to some of the vaccinators having for 1878 sent in false returns. One Probationary Vaccinator Mannar Pillay was sentenced to two months' simple imprisonment for submitting false returns and a Second-class Vaccinator Nagalingum Pillay, who was found guilty for a similar offence, was dismissed from the service. The total number of infants vaccinated under one year of age was 1,904 with a percentage of 92·38 of success, and the results in 69 cases were unknown. Second-class Vaccinator Palania Pillay vaccinated the largest number of cases, viz., 1,962. Obstructions to the spread of vaccination still exist in some parts, and the Deputy Inspector suggests that vaccination be made compulsory. The services of a peon are required and no travelling batta is allowed to the Deputy Inspector. The President, Mr. J. B. Pennington, takes a warm interest in promoting vaccination in the district. In the early part of the year 200 cases were vaccinated among the Lubbays, a class of people who are greatly opposed to vaccination. Infantile vaccination is backward in this circle, and the village curnams should give a list of children born in their villages to the Vaccinator, and it would be well if they would set an example by having their own children first vaccinated. For the past year there were 535 fewer cases under one year of age vaccinated than in 1878. The conduct of only a few of the Vaccinators was good, and the Deputy Inspector states that many of the Vaccinators are untrustworthy. The amount paid for batta to mothers for supplying lymph was Rupees 49-4-6. The cost of each successful case was 3 annas and 8 pies, and is 7 pies more than in 1878. The lymph in use was good and effective.

On the 7th October 1879 I went on to Virudupati, where I was met by the First-class Deputy Inspector of Vaccination of the Tinnevelly Circle.

At Virudupati I saw the two men who work in Virudupati Division, viz., First-class Vaccinator Shunmoogavalayuda Pillay and Probationary Vaccinator Coopoosawmy Naidu.

First-class Vaccinator Shunmoogavalayuda Pillay vaccinated from January to September 591 cases; of these 517 were successful, 110 under one year of age, and 322 from arm to arm. I saw some recent cases done by this man and the lymph was good. The old cases which I saw had well-marked cicatrices. His register was well kept and he had a good supply of preserved lymph.

Probationary Vaccinator Coopoosawmy Naidu from January to September vaccinated 389 cases; of these 366 were successful, 23 were under one year of age, and 276 from arm to arm. I saw some good lymph cases which had been vaccinated by this man. His register and instruments were well kept and he had a good supply of preserved lymph.

Vaccination in Virudupati is backward. I visited some schools and found that out of 103 children 22 had been vaccinated, 34 were unprotected, and 47 had marks of small-pox. From January to September only 133 children under one year of age had been vaccinated in the Virudupati Division, while the births in Virudupati alone for that time were 160.

On the 8th I left Virudupati and went on to Shoolookupatty, where I saw a good many recent cases which had been vaccinated by Probationary Vaccinator Shaik Davud of the Shoolookuputty Division. The lymph in use was excellent, and this man does good work. He works independently and should be promoted to

Second-class Vaccinator. From January to September he vaccinated 652 cases. Of these 594 were successful, 27 under one year of age, 591 from arm to arm, and 208 had been verified by the Deputy Inspector. His register and instruments were in good order.

From Shoolookupatty I went on to Sátúr and saw some cases of vaccination which had been done by First-class Vaccinator Peraviparumal Pillay of the Sátúr Taluk. The old cases had well-marked cicatrices, but in the recent cases the lymph did not appear very good. This Vaccinator's register and instruments were well kept and he had a good supply of preserved lymph. From January to September he vaccinated 811 cases; of these 646 were successful, 75 under one year of age, 291 from arm to arm, and 59 had been verified by the Deputy Inspector. I visited some pial schools and found that out of 45 pupils 24 had been vaccinated, 16 were unprotected, and 5 had marks of small-pox.

On the 9th I left Sátúr and went on to Koilpati, where I saw some recent cases which had been vaccinated by Second-class Vaccinator Kistna Pillay of the Koilpati Division. The lymph in use appeared fair, but this man is careless. He showed me three cases of vaccination done in September, but he had forgotten to enter their names in his register. His instruments were clean and he had a good supply of preserved lymph. From January to September he vaccinated 282 cases. Of these 230 were successful, two under one year of age, and 166 from arm to arm.

On the 10th I went on to Kayatár from Koilpati. At Kayatár I saw Second-class Vaccinator Rungasawmy Pillay of the Kayatár Division. From January to September this man vaccinated 614 cases; of these 558 were successful, 452 from arm to arm; 37 under one year of age, and 145 had been verified by the Deputy Inspector. Infantile vaccination in the Kayatár Division is backward: thus from January to September only 37 children under one year of age were vaccinated, while the births in Kayatár alone for that period were 47. I saw both old and recent cases which had been vaccinated by this man. The old cases had well-marked cicatrices, but in the recent ones the lymph did not appear good. His register and instruments were well kept and he had a good supply of preserved lymph.

At Kayatár I also saw Second-class Vaccinator Rungasawmy Pillay of Savalapoory Division. His instruments and register were well kept. From January to September he vaccinated 870 cases. Of these 672 were successful, 56 under one year of age, 726 from arm to arm, and 32 were verified by the Deputy Inspector. This man had only a small supply of lymph preserved between glass plates.

On the 11th I went on to Gengundan and then on to Tinnevelly.

At Gengundan I saw some old and recent cases done by First-class Vaccinator C. Baliah Naidu, and Probationary Vaccinator Soobiah Naidu, both of the Tinnevelly Division. The old cases had well-marked cicatrices and in the recent cases the lymph was good.

First-class Vaccinator Baliah from January to September vaccinated 441 cases. Of these 386 were successful, 23 under one year of age, 320 from arm to arm, and 225 were verified by the Deputy Inspector.

Probationary Vaccinator Soobiah Naidu has 18 months' service. From January to September he vaccinated 430 cases. Of these 366 were successful, 385 from arm to arm, 31 under one year of age, and 267 were verified by the Deputy Inspector. This man knows no English.

The Municipality of Tinnevelly employs one First-class Vaccinator, viz., Coopoosawmy Pillay who was appointed in December 1878. From January to September this man vaccinated 377 cases. Of these 293 were successful, 26 under one year of age, and 114 from arm to arm. This man's work is supervised by the Native Surgeon.

Vaccination in this Municipality is backward: thus from January to September 26 cases had been vaccinated under one year of age, while the births for the same time were 58. The vaccinator states that the people do not care to have their

children vaccinated till they are one year old, but still the numbers done under 2 years of age are small: thus from 1st October 1877 to 1st October 1878 there were 555 births, while only 191 cases were vaccinated under two years of age. From 1st October 1877 to 1st October 1879 I visited five pial schools and found the following results :—

Vaccinated	47
Unprotected	91
Marks of small-pox	46

This Municipal Vaccinator does not work well and the lymph in use was bad. He also vaccinates too much from preserved lymph: thus from January to September he vaccinated 377 cases, and only 114 of these had been done from arm to arm.

While at Tinnevelly I saw some cases which had been vaccinated by Second-class Vaccinator Palania Pillay and Probationary Vaccinator Pallaniappa Pillay, both of the Palamcottah Division, and Probationary Vaccinator Veerasawmy Pillay of the Tinnevelly Division. The lymph in use was good and the cicatrices of old vaccination well marked.

Second-class Vaccinator Palania Pillay does not know English. From January to September he vaccinated 1,589 cases, of which 1,527 were successful, 1,295 from arm to arm, 189 under one year of age, and 632 were verified by the Deputy Inspector. His register was neatly kept in Tamil and his instruments were in good order. He had a good supply of preserved lymph.

Probationary Vaccinator Pallaniappa Pillay knows a little English. From January to September he vaccinated 490 cases, of which 371 were successful, 360 from arm to arm, 14 were under one year of age, and 158 were verified by the Deputy Inspector. His register was kept in Tamil. His instruments were well kept and he had a good supply of preserved lymph. His lymph bottle was broken.

Probationary Vaccinator Veerasawmy Pillay has 1 year's service and knows no English. From January to September he vaccinated 467 cases. Of these 371 were successful, 360 from arm to arm, 14 under one year of age, and 158 were verified by the Deputy Inspector. His instruments and register were in good order.

While at Tinnevelly I examined the records, &c., belonging to the First-class Deputy Inspector of Vaccination. They were neatly kept and written up to date. This Deputy Inspector moves about a good deal, but he is not very sharp.

The Palamcottah Municipality employs one Second-class Vaccinator, viz., V. S. Soobramanian Pillay, whose work is supervised by the Civil Surgeon. From January to September he vaccinated 406 cases; of these 316 were successful, 272 from arm to arm, and 71 under one year of age. His register and instruments were in good order, and he had a supply of preserved lymph. I saw some cases done by this Vaccinator and the lymph in use was good and the cicatrices of old vaccination well-marked.

Infantile vaccination is backward; thus from January to September only 71 children under one year of age were vaccinated, while the births for the same time were 509. The Commissioners state that there is great difficulty in getting children under one year of age vaccinated, but the children vaccinated from 1st October 1877 to 1st October 1879 under one year of age are very small when compared with the births from 1st October 1877 to 1st October 1878. The deaths from small-pox from January to September were 14.

I visited some schools and found the following results, viz. :—

Vaccinated	88
Unprotected	66
Marks of Small-pox	41

On the 16th I left Tinnevelly for Tuticorin, returning to Tinnevelly on the 18th.

The Tuticorin Municipality employs one First-class Vaccinator, whose work is supervised by Mr. O'Leary. The present Vaccinator has eleven years' service, but knows no English. From January to September he did 603 cases; of these 95 were under one year of age and 435 were vaccinated from arm to arm. I saw some

cases which had been vaccinated by him. The lymph in use was not very good. His register, which was in Tamil, was not well kept, and his instruments very dirty. One anna is given to the children when vaccinated, and, if lymph is taken, they receive one anna more.

Infantile vaccination is backward in this Municipality. From January to September 95 children under one year of age were vaccinated, and the births for the same period were 336. Also from 1st October 1877 to 30th September 1878 there were 340 births, while the cases vaccinated under two years of age from 1st October 1877 to 30th September 1879 were 206. I visited some pial schools and found that out of 134 scholars 54 were vaccinated, 53 were unprotected, and 27 had marks of small-pox.

Second-class Vaccinator Nagalingum Pillay of the Tuticorin Division did not appear when I was at Tuticorin although he had been ordered to do so.

TRICHINOPOLY DISTRICT.

Establishment.

1 First-class Deputy Inspector—Ponnen Connen.
5 do. Vaccinators.
12 Second-class do.
4 Probationary do.
1 Peon.
Area—3,584 square miles.
Population—1,112,607.

The total number vaccinated in this district during the past year was 16,032 with a percentage of 91·06 of success, and the results in 891 cases were not ascertained. On a comparison being made with the work for 1878 there is found an increase of 1,272 operations for 1879, and this is attributed by the Deputy Inspector to one anna being allowed to Vaccinators for every successful case performed above 1,200 operations in the year. Rs. 54 were spent on this account. First-class Vaccinator Streenivasen vaccinated the largest number of cases, viz., 2,295. Deputy Inspector of Vaccination A. Krishna Nair was transferred to Calicut Circle at his own request in September 1879, and Ponnen Connen joined this district from Malabar. The people living in remote parts of the district are still averse to vaccination, and a great deal might be done by the revenue officials as they have more influence with the people than the Vaccinators. Small-pox was prevalent in Udayárpálaiyam Taluk in the latter part of the year, and three temporary hands were employed to vaccinate the unprotected in this taluk. No travelling batta, as sanctioned in G.O., No. 1,591, dated 2nd September 1876, is allowed to Vaccinators, and, if it were, the Deputy thinks that the Vaccinators would move about more and that there would be an increase in the number of cases vaccinated. The number of infants vaccinated under one year of age was 1,308, of which 682 were males and 626 females. There is an increase of 191 cases vaccinated under one year of age for 1879 when compared with 1878. Thirty-five vaccination certificates were granted to candidates going up for examinations, &c. The cost per successful operation was 3 annas and 11 pies, being 4 pies less than in 1878, which was 4 annas and 3 pies.

On the 19th September I left Senjiputty and went on to Trichinopoly.

At Tawaguddy, which is 12 miles from Senjiputty, I was met by the First-class Deputy Inspector of the Trichinopoly District. I saw here about 50 old cases which had been vaccinated by Second-class Vaccinator Thavaroyen of the Trichinopoly Taluk, and the cicatrices in these were well-marked and six in number in each case.

The Trichinopoly Municipality employs one First-class, three Second-class, and two Probationary Vaccinators.

First-class Vaccinator Chinnasawmy Pillay has 12 years' service and knows English. From January to August this man vaccinated 447 cases; of these

388 were successful and 28 were under one year of age. His register was very carelessly kept and his instruments were dirty. I saw some lymph cases which had been vaccinated by him, and the lymph in use did not appear good.

Second-class Vaccinator Parianna Pillay has 7 years' service and is a stupid man. From January to August he vaccinated 236 cases; of these 220 were successful, 62 under one year of age, and 32 vaccinated from arm to arm. His register was most carelessly prepared, some of the columns being blank, and his instruments were dirty. His monthly return and register do not agree. I saw two or three recent cases vaccinated by this man and the lymph in use was bad.

Second-class Vaccinator Moonisawmy Pillay has 18 months' service and he appears to work fairly well. From January to August he vaccinated 289 cases; of these 249 were successful, 55 vaccinated from arm to arm, and 35 under one year of age. His register and instruments were in good order. I saw some recent cases done by this man and the lymph in use was good.

Second-class Vaccinator Ameenadeen Sahib has two years' service. From January to August he vaccinated 250 cases; of these 229 were successful, 19 vaccinated from arm to arm, and 58 under one year of age. His register was incorrectly kept, but his instruments were clean. This man had been on a month's privilege leave and only returned on the 16th August. I saw some recent cases done by him and the lymph in use was good. The two paid Probationers vaccinate a few cases every month and learn their work from the Vaccinators.

Vaccination in the Trichinopoly Municipality is very backward. The total number vaccinated from January to August was 1,325, and of these 212 were under one year of age. The number of births for the same period was 956, and the deaths from small-pox 20. The average cost of each case was 5 annas and 3 pies.

I visited some schools and found the following results, viz. :—

—	Vaccinated.	Unprotected.	Marks of Small-pox.
Six Pial Schools composed chiefly of Hindu Children	37	108	52
Nine Pial Schools composed chiefly of Christian Children	142	172	58
Total ...	179	280	110

While at Trichinopoly I saw Second-class Vaccinator M. Thevaroya Pillay of the Trichinopoly Taluk. This man has two years' service and appears to work fairly well. From January to August he vaccinated 416 cases; of these 388 were successful, 16 under one year of age, and 132 had been verified by the Deputy Inspector. His register and instruments were in good order. I saw some recent cases vaccinated by him and the lymph in use was good.

At Trichinopoly I examined the records, &c., belonging to the Deputy Inspector of Vaccination and found they were neatly kept and written up to date. This man is smart, and, as he has been frequently ill, I transferred him to the Malabar District, which is his native country.

On the 23rd September I went to Srírangam from Trichinopoly.

Two vaccinators are employed by the Srírangam Municipality—one First-class and one Probationary Vaccinator.

First-class Vaccinator M. Ramasawmy has 4½ years' service. From January to August he vaccinated 413 cases; of these 359 were successful, 48 under one year of age, and 232 verified by the Deputy Inspector. His register and instruments were in good order. I saw some lymph subjects done by this man, but the lymph in use was not very good. The Deputy Inspector was ordered to send some good lymph to this Vaccinator.

Probationary Vaccinator Coopoosawmy was only appointed in April 1879. For three months he learned his work with the First-class Vaccinator and after that he began to vaccinate cases. I saw some recent cases done by this man and the lymph in use was good. His register and instruments were in good order.

Vaccination is still backward in the Srírangam Municipality. From January to August the total number vaccinated was 465 and 55 were under one year of age. The births for the same period were 179 and deaths from small-pox 2.

I visited some schools and found that out of 353 children 110 were vaccinated, 170 were unprotected, and 73 had marks of small-pox.

On the 24th September I went to Kulitalai from Trichinopoly.

First-class Vaccinator Shamshoodeen of the Kulitalai Division has 13 years' service and appears a lazy man. During January and February he was on sick leave, but from March to August he vaccinated 393 cases; of these 373 were successful, 17 under one year of age, and 147 verified by the Deputy Inspector. His register and instruments were in good order, but his tube lymph was bad. I saw some recent cases done by him and the lymph in use was not good.

Vaccination in the Kulitalai Division is backward. The Vaccinator from March to August only vaccinated 17 children under one year of age, while the births in Kulitalai alone for that time were 56. I visited some schools at Kulitalai and found the following results, viz. :—

—	Vaccinated.	Unprotected.	Marks of Small-pox.
Two Pial Schools	13	28	10
One Anglo-Vernacular School	31	45	15
Total ...	44	73	25

On the 27th September I went to Manapárai from Trichinopoly.

Second-class Vaccinator Moothoosawmy of the Manapárai Division does the largest number of cases of any Vaccinator in the district. From January to August he vaccinated 1,181 cases; of these 995 were successful and 57 were under one year of age. His register and instruments were in good order. I visited a pial school at Manapárai and found that out of 17 children 10 were vaccinated, 5 were unprotected, and 2 had marks of small-pox.

At Vaiyamputty, which is on the road to Dindigul from Manapárai, I saw about 100 old cases which had been vaccinated by Second-class Vaccinator Moothoosawmy. The cicatrices in these cases were well marked.

VIZAGAPATAM DISTRICT—JEYPORE HILL TRACTS.

Establishment.

1 First-class Deputy Inspector—A. Ramasawmy.
6 Second-class Vaccinators.
8 do. do. paid by Zemindari Estate.

The Deputy Inspector reports that 3,033 cases were vaccinated during the past year with a percentage of 86·80 of success, and the results in 198 cases were unknown. Of the total 1,491 were done by the Government vaccinators and 1,542 by the Zemindari staff. On comparing the total vaccinated for 1879 with that for 1878 there is found an increase of 479 cases for the past year. On reviewing the vaccinators' work B. Chendriah is found to have done the largest number of cases, viz., 448. The Deputy Inspector states that there are great objections to vaccination among the hill tribes, especially the Khonds and Sowrahs, who refuse to submit to vaccination. Small-pox was prevalent in some parts of the Royagudah and Jeypore Taluks, but the mortality from this disease was not great. Steps were immediately taken to check the progress of the disease and to vaccinate all the unprotected. Inoculation is practised among the Oriahs and hill people, and, if this was prohibited by law, the work of the vaccinators would be increased; 62 infants under one year of age were vaccinated (of which 29 were males and 33 females), and this when compared with 1878 shows a decrease of 18 cases. The conduct of the staff was good. No batta was allowed to mothers for furnishing lymph. The cost of each successful operation was Rupees 1-1-3 against Rupees 1-6-1 for 1878.

VIZAGAPATAM CIRCLE.

ESTABLISHMENT.

1 First-class Deputy Inspector—N. V. Soobaroyadu.
9 Do. Vaccinators.
9 Second-class do.
3 Probationary do.
1 Temporary do.
Area—1,132 square miles.
Population—836,828.

For 1879, 11,987 cases of vaccination were performed; of these 11,039 were done by the Local Fund staff, 398 by one temporary Vaccinator, and 550 by two First-class Vaccinators employed from April 1879 in the Gudem Hills in accordance with G.O., No. 892, dated 30th May 1878. On a comparison being made with the work during 1878, there is seen an increase of 1,614 cases for 1879. The Deputy Inspector states that there would have been a greater increase in the work had not fever been prevalent in the circle in the months of July, August, and September; also if one anna was given to each case at the time of operation instead of months after as is done at present. On reviewing the work of the vaccinators, First-class Vaccinator B. Venkatachellam is found to have vaccinated the largest number of cases, viz., 1,276 cases. The people of this circle, especially of the hilly parts, are averse to vaccination in case they incur the displeasure of their goddess. The Deputy Inspector states that the only means of removing the obstacles in extending vaccination in the circle is compulsion. Small-pox was prevalent here and there in the circle for the first nine months of the year and Vaccinators were, on reports being received, at once deputed to the infected parts to vaccinate the unprotected. The conduct of the staff was fairly good, but some of the vaccinators were reprimanded for the late submission of their returns. No batta is paid to mothers for furnishing lymph. 654 cases were vaccinated under one year of age, consisting of 350 males and 304 females. The Deputy Inspector states that the services of a peon are not granted him, neither is travelling batta allowed to himself or vaccinators. The lymph in use was good. The cost of each successful case was 7 annas and 2 pies against 7 annas and 1 pie for 1878.

VIZIANAGRUM CIRCLE.

ESTABLISHMENT.

1 Second-class Deputy Inspector—C. Theroovengada Moodelly.
7 First-class Vaccinators.
11 Second-class do.
3 Probationary do.
Area—871 square miles.
Population—937,697.

The number of persons vaccinated in this circle for 1879 was 13,271, comprising 6,930 males and 6,341 females with a percentage of 98·19 of success. On comparing the work turned out in 1879 with that for 1878 there is found a slight increase of 736 cases for the past year. On reviewing the vaccinator's work First-class Vaccinator F. Devasigamoney, No. 736, is found to have done the largest number viz., 1,474, and the smallest, 31, by Balaprasathu who acted for a Second-class Vaccinator for one month. The prevalence of fever, &c., prevented more cases being vaccinated. The Deputy Inspector states that compulsory vaccination should be introduced in this circle. 645 infants under one year of age were vaccinated; of these 637 were successful and 315 were males and 330 females. For 1878 there were 716 cases vaccinated under one year of age. The conduct of the vaccinators was good. The Deputy Inspector acknowledges with thanks the assistance given him by Mr. Goodrich, the President. The cost of each successful case was 5 annas and 10 pies against 6 annas for 1878. Twenty vaccination certificates were granted to candidates during the year. Deputy Inspector Y. Poonoosawmy Pillay of this circle was promoted to First Class and posted to Chetterpore Circle and the present man was reduced and transferred to this circle from Cuddapah.

CIVIL DISPENSARIES.

The total number vaccinated in the several dispensaries during the past year was 5,193 with a percentage of 78·16 of success; 4,897 of these were primary vaccination with a success of 81·27 per cent., and 296 were revaccinations; of the above total 374 cases were performed by two Pupil Vaccinators attached to Old Town and New Town Cuddalore Dispensaries; 223 were done in the former and 151 in the latter. The remaining cases, viz., 4,819, were done by medical officers in charge of dispensaries. The particulars of work done in dispensaries are given separately in Statement No. III appended to this report. Only 565 cases were successfully vaccinated under one year of age. Names of dispensaries in which work was done are entered in the statement. Nearly half of the Civil Dispensaries in the Presidency have not forwarded any return of work done in them, and in some dispensaries (12 in number) "returns" showing "nil" were received throughout the year. The dispensary returns were irregularly received in this office, some through the Sanitary Commissioner's office, some received directly, and others through the Surgeon-General's Office. It would be well to arrange that all the dispensary returns be received through one channel.

ZEMINDARIS.

Thirteen vaccinators are employed in four Zemindari estates, viz., one in Arni Jaghire of the North Arcot District, eight in Jeypore Hill Tracts of the Vizagapatam District, two in Pithápuram of the Godávari District, and two in Venkatagiri of the Nellore District. During the year under review a total of 3,631 cases was done by these vaccinators comprising 2,074 males and 1,557 females with a percentage of 86·11 of success. Of the above total 3,605 were primary vaccinations with a percentage of 86·12 of success. 126 cases were successfully vaccinated under one year of age. On comparing the total vaccinated with that for 1878 there is found a decrease of 2,329 operations. The particulars of work done by the Estate Vaccinators are given in the subjoined table:—

Zemindaris.	Districts.	Number of Vaccinators.	Sex.			Primary Vaccination.				Revaccination.		Percentage of Successful Cases.	
			Male.	Female.	Total.	Total.	Successful.			Total.	Successful.	Primary Vaccination.	Revaccination.
							Under 1 year.	Over 1 & under 6 years.	Total of all Ages.				
Arni Jaghire ...	North Arcot ...	1	198	134	332	332	42	175	274	...	...	82·53	...
Jeypore ...	Vizagapatam ...	8	892	650	1,542	1,535	29	813	1,312	7	7	85·47	100
Pithápuram ...	Godávari ...	2	642	518	1,160	1,160	42	494	968	...	...	83·45	...
Venkatagiri ...	Nellore ...	2	342	255	597	578	13	219	550	19	18	95·15	94·74
	Total ...	13	2,074	1,557	3,631	3,605	126	1,701	3,104	26	25	86·12	96·15

MUNICIPALITIES.

In all there are 50 Municipalities including the town of Madras. The Municipalities of Mettupalaiyam and Gooty employ no Vaccinator and so no returns are received from them. The total number of cases vaccinated in Municipalities during

the past year was 64,029 comprising 35,925 males and 28,096 females and the sex of eight revaccination cases is unknown. On comparing the total vaccinated for 1879 with that for 1878 there is found a decrease of 19,077 cases for 1879. The largest number vaccinated in any Municipality was in that of Madras, viz., 21,306, and the second on the list is Kumbakónam, where 5,301 cases were done. The lowest number done was in the Anantapur Municipality, viz., 86. The particulars of work done in each Municipality are shown in Statement No. I.

MADRAS MUNICIPALITY.

ESTABLISHMENT.

1 First-class Deputy Inspector—K. Vurdarajooloo Naidoo.
4 Do. Vaccinators.
12 Second-class do.
1 Peon.
Area—27 square miles.
Population—397,552.

The Deputy Inspector reports that 21,306 cases were vaccinated during the past year with 17,009 successful, 1,645 unsuccessful, and 2,652 unknown cases. Of the total 11,969 were males and 9,337 females. On comparing the total vaccinated for 1879 with that for 1878 there is found a decrease of 18,070 operations for the past year, and this is chiefly due to there being no famine relief camps or nurseries open during the past year. In 1878 from 1st January to 31st March, when some famine relief camps and nurseries were in existence, 20,140 cases were vaccinated, but from 1st April to 31st December of the same year only 19,236 cases were done. There is an increase in the percentage of success for 1879, and this is due to the results in many cases which were done in the relief camps, &c., in 1878 being marked as unknown. Small-pox was prevalent during the early months of the year. From February to April there were 455 deaths from small-pox. When small-pox broke out immediate steps were at once taken to vaccinate all the unprotected. For the first three months of the past year 6,437 cases were vaccinated, and of these 1,968 were infants under one year of age, while the births registered for the same period were 2,110. 5,907 infants under one year of age were vaccinated, showing an increase of 3,283 cases over those done in 1878. This increase was due to the assistance rendered by the Registrars who give the return of births to vaccinators from time to time. 994 charges of lymph in capillary tubes were sent to medical officers of regiments, dispensaries, &c. 154 lymph subjects were supplied to medical and other officers of the Presidency town. Rupees 1,249-6-7 were spent as batta to mothers for furnishing lymph and to vaccinate cases. Each vaccinated case receives 5 pies, and 4 annas are given to mothers when lymph is taken from their children's arms. During the year there were six changes among the staff, viz., the services of two peons were dispensed with, three Second-class Vaccinators were dismissed from the service, and a Second-class Vaccinator was promoted to First Class in the place of a First-class Vaccinator who was reduced for carelessness and bad work. The conduct of the staff was on the whole satisfactory and the lymph in use good. The cost of each successful case was 3 annas and 6 pies against 2 annas and 6 pies for 1878.

VACCINE DEPÔT.

Second-class Vaccinator Ragoonath Singh is attached to this depôt. He attends every morning from 6 to 8 A.M. and vaccinates any who may come. The total number vaccinated at the depot was 854 cases, showing a decrease of 1,146 cases when compared with the work done for 1878. The decrease is due to people not resorting to this institution, as now they know they can be vaccinated at their own houses. The Deputy Inspector states that many more cases would be vaccinated

at the depôt if rice, &c., were given to the people. This total 854 comprises 509 successful, 77 unsuccessful, and 268 unknown. The conduct of this vaccinator was good. He also vaccinates in the neighbourhood of the depôt. About the end of the year it was tried at the depôt to start animal vaccination. From Brussels and Bombay animal lymph was received, but in all cases it was unsuccessful on the calf and human subject.

RAILWAYS.

No returns of vaccination have been received during the year from the Apothecaries attached to the Madras Railway lines, and last year too no work was turned out by them.

MEDICAL SUBORDINATES.

The total number of cases vaccinated by Medical Subordinates during the year was 21,315 comprising 14,816 males and 4,124 females. The sex of 2,375 revaccination cases is not known. Of the total 18,940 were primary vaccinations with a percentage of 64·38 of success. 1,451 cases were successfully vaccinated under one year of age. The total given above is exclusive of the work done by Medical Subordinates attached to the Civil Dispensaries, as dispensary vaccination is separately shown in Statement No. III.

JAS. ANDERSON LAING, Surgeon,

OFFICE OF INSPECTOR OF VACCINATION AND DEPUTY SANITARY COMMISSIONER,
OOTACAMUND, 15*th May* 1880.

Inspector of Vaccination and Deputy Sanitary Commissioner, Madras Presidency.

A—VACCINE DEPARTMENT.

STATEMENT No. I *showing Particulars of Vaccination in the Madras Presidency during the Calendar Year* 1879.

Number.	Circles and Districts.	Population of District or Circle according to the Census of 1871.	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 Vaccination.				Re-vaccination.		Percentage of Successful Cases.		Persons successfully vaccinated per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous 5 Years.		Average Annual Number of Deaths from Small-pox during previous 5 Years.	
										Successful.											
									Total.	Under 1 Year.	Over 1 and under 6 Years.	Total of all Ages.	Total.	Successful.	Primary Vaccination.	Re-vaccination.		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Bellary District.				Males.	Females.	Total.														
1	Bellary Circle— Permanent Vaccinators ...	595,172	129	13	2,964	2,801	5,765	443	5,712	1,669	3,085	5,114	53	...	89·53	...	...	...	...	...	...
	Total of Circle ...	595,172	129	13	2,964	2,801	5,765	443	5,712	1,669	3,085	5,114	53	...	89·53	...	9	7,888	12	435	·73
2	Gooty Circle— Permanent Vaccinators ...	609,982	163	8	1,743	1,549	3,292	411	3,292	901	2,020	3,119	...	...	94·74	...	...	...	...	...	...
	Total of Circle ...	609,982	163	8	1,743	1,549	3,292	411	3,292	901	2,020	3,119	...	...	94·74	...	5	3,853	6	695	1·1
3	Penukonda Circle— Permanent Vaccinators ...	376,715	130	4	1,270	991	2,261	565	2,188	488	1,197	1,760	73	33	80·44	45·20	...	...	...	...	...
	Total of Circle ...	376,715	130	4	1,270	991	2,261	565	2,188	488	1,197	1,760	73	33	80·44	45·20	5	2,505	2	615	1·6
	Total of District ...	1,581,869	422	25	5,977	5,341	11,318	453	11,192	3,058	6,302	9,993	126	33	89·28	26·19	6	12,233	7	1,745	1·1
4	*Chingleput District.* Permanent Vaccinators ...	900,857	344	13	7,350	5,800	13,150	1,012	12,794	981	6,592	11,281	356	197	88·17	55·33	...	...	...	...	...
	Total of District ...	900,857	344	13	7,350	5,800	13,150	1,012	12,794	981	6,592	11,281	356	197	88·17	55·33	12	11,917	13	2,035	2·25
	Coimbatore District.																				
5	North Coimbatore Circle— Permanent Vaccinators ...	795,610	234	16	8,899	7,697	16,596	1,307	16,596	2,965	10,418	15,587	...	...	93·92	...	...	...	...	...	...
	Temporary do. ...	...	...	2	1,268	1,162	2,430	1,215	2,430	539	1,395	2,128	...	...	87·57	...	...	...	...	...	...
	Total of Circle ...	795,610	234	18	10,167	8,859	19,026	1,057	19,026	3,504	11,813	17,715	...	...	93·11	...	22	17,661	20	633	·79
6	South Coimbatore Circle— Permanent Vaccinators ...	922,156	321	14	7,251	6,902	14,153	1,011	14,152	2,354	8,873	13,641	1	1	96·39	100·	...	...	...	...	...
	Temporary do. ...	...	...	2	1,342	1,339	2,681	1,340	2,681	577	1,756	2,601	...	...	99·10	...	...	...	...	...	...
	Total of Circle ...	922,156	321	16	8,593	8,241	16,834	1,052	16,833	2,931	10,623	16,242	1	1	96·48	100·	17	23,908	25	539	·59
	Total of District ...	1,717,766	555	34	18,760	17,100	35,860	1,054	35,859	6,435	22,436	33,957	1	1	94·69	100·	19	37,212	21	1,180	·68
	Cuddapah District.																				
7	Cuddapah Circle— Permanent Vaccinators ...	784,750	169	14	3,075	2,012	5,087	363	5,087	239	2,024	3,939	...	...	77·43	...	...	...	...	...	...
	Total of Circle ...	784,750	169	14	3,075	2,012	5,087	363	5,087	239	2,024	3,939	..	...	77·43	...	5	3,645	4	648	·82
8	Madanapalle Circle— Permanent Vaccinators ...	550,169	160	12	1,817	1,342	3,159	263	3,145	74	991	2,080	14	11	66·14	78·57	...	...	...	...	...
	Total of Circle ...	550,169	160	12	1,817	1,342	3,159	263	3,145	74	991	2,080	14	11	66·14	78·57	4	3,982	7	1,000	1·8
	Total of District ...	1,334,919	329	26	4,892	3,354	8,246	317	8,232	313	3,015	6,019	14	11	73·12	78·57	5	7,626	5	1,648	1·23
	Ganjam District.																				
9	Chetterpore Circle— Permanent Vaccinators ..	784,856	254	19	6,436	4,906	11,342	597	11,342	166	5,191	10,542	...	...	92·94	...	...	...	...	...	...
	Total of Circle ...	784,856	254	19	6,436	4,906	11,342	597	11,342	166	5,191	10,542	...	...	92·94	...	13	4,682	6	1,568	2
10	Chicacole Circle— Permanent Vaccinators ...	566,863	477	10	3,182	2,835	6,017	602	6,017	259	3,323	5,479	...	...	91·05	...	...	...	..	...	...
	Total of Circle ...	566,863	477	10	3,182	2,835	6,017	602	6,017	259	3,323	5,479	...	...	91·05	...	9	3,126	5	117	·21
11	Hill Tracts of Ganjam— Permanent Vaccinators ...	131,112	...	6	1,786	1,426	3,212	535	3,172	147	564	3,009	40	10	94·86	25·	...	...	...	...	...
	Total of Hill Tracts ...	131,112	...	6	1,786	1,426	3,212	535	3,172	147	564	3,009	40	10	94·86	25·	23	3,663	27	...	...
	Total of District ...	1,482,839	731	35	11,404	9,167	20,571	588	20,531	572	9,078	19,030	40	10	92·69	25·	12	11,618	7	1,691	1·14

A—VACCINE DEPARTMENT.

STATEMENT No. 1 *showing Particulars of Vaccination in the Madras Presidency during the Calendar Year* 1879—(Continued).

Number.	Circles and Districts.	Population of District or Circle according to the Census of 1871.	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 Vaccination. Total.	Primary Vaccination. Successful. Under 1 Year.	Primary Vaccination. Successful. Over 1 and under 6 Years.	Primary Vaccination. Successful. Total of all Ages.	Re-vaccination. Total.	Re-vaccination. Successful.	Percentage of Successful Cases. Primary Vaccination.	Percentage of Successful Cases. Re-vaccination.	Persons successfully vaccinated per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous 5 Years. Number.	Average Annual Number of Persons successfully vaccinated during previous 5 Years. Ratio per 1,000.	Average Annual Number of Deaths from Small-pox during previous 5 Years. Number.	Average Annual Number of Deaths from Small-pox during previous 5 Years. Ratio per 1,000.
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Godávari District.				Males.	Females.	Total.														
12	Cocanada Circle—																				
	Permanent Vaccinators ...	834,948	193	17	6,068	4,125	10,193	600	10,192	448	4,353	9,109	1	1	89·37	100·	...	...	...	...	...
	Zemindari do. ...	...	...	2	642	518	1,160	580	1,160	42	491	968	...	...	83·45	...	...	...	...	...	...
	Total of Circle ...	834,948	193	19	6,710	4,643	11,353	597	11,352	490	4,847	10,077	1	1	88·77	100·	12	10,192	12	1,849	2·2
13	Ellore Circle—																				
	Permanent Vaccinators ...	694,927	216	12	3,098	2,772	5,870	489	5,862	532	2,490	4,870	8	6	83·08	75·	...	...	...	...	...
	Total of Circle ...	694,927	216	12	3,098	2,772	5,870	489	5,862	532	2,490	4,870	8	6	83·08	75·	7	3,959	5	2,078	2·9
	Total of District ...	1,529,875	409	31	9,808	7,415	17,223	559	17,214	1,022	7,337	14,947	9	7	86·83	77·7	9	13,473	8	4,041	2·64
	Kistna District.																				
14	Guntúr Circle—																				
	Permanent Vaccinators ...	660,106	159	9	2,825	2,101	4,926	547	4,926	220	2,020	4,266	...	...	86·60	...	...	...	...	...	...
	Total of Circle ...	660,106	159	9	2,825	2,101	4,926	547	4,926	220	2,020	4,266	...	...	86·60	...	6	6,712	9	740	1·1
15	Masulipatam Circle—																				
	Permanent Vaccinators ...	738,047	202	16	3,823	3,354	7,177	449	6,694	433	2,519	5,342	483	355	79·80	73·49	...	...	...	...	...
	Total of Circle ...	738,047	202	16	3,823	3,354	7,177	449	6,694	433	2,519	5,342	483	355	79·80	73·49	7	7,611	10	1,122	1·5
	Total of District ...	1,398,153	361	25	6,648	5,455	12,103	484	11,620	653	4,539	9,608	483	355	82·68	73·49	7	13,464	9	1,891	1·35
	Kurnool District.																				
16	Permanent Vaccinators ...	926,766	120	12	2,243	1,622	3,865	322	3,796	243	2,147	3,239	69	40	85·33	57·97	...	...	...	...	...
	Total of District ...	926,766	120	12	2,243	1,622	3,865	322	3,796	243	2,147	3,239	69	40	85·33	57·97	4	2,739	3	957	1·03
	Madura District.																				
17	Dindigul Circle—																				
	Permanent Vaccinators ...	954,965	244	20	6,162	5,494	11,656	583	11,656	3,198	6,911	11,413	...	...	97·91	...	...	...	...	...	...
	Total of Circle ...	954,965	244	20	6,162	5,494	11,656	583	11,656	3,198	6,911	11,413	...	...	97·91	...	12	14,097	14	1,279	1·3
18	Madura Circle—																				
	Permanent Vaccinators ...	1,246,798	255	34	13,535	12,660	26,195	770	26,177	3,514	14,279	24,567	18	16	93·84	88·88	...	...	...	...	...
	Total of Circle ...	1,246,798	255	34	13,535	12,660	26,195	770	26,177	3,514	14,279	24,567	18	16	93·84	88·88	18	22,745	18	380	·31
	Total of District ...	2,201,763	499	54	19,697	18,154	37,851	700	37,833	6,712	21,190	35,980	18	16	95·10	88·88	11	36,840	16	1,667	·75
	Malabar District.																				
19	Calicut Circle—																				
	Permanent Vaccinators ..	1,482,029	326	9	8,311	2,018	10,329	1,147	10,329	41	1,564	8,541	...	...	82·69	...	...	...	...	...	...
	Temporary do. ...	...	...	1	307	37	344	344	344	1	57	264	...	...	76·74	...	...	...	...	...	...
	Total of Circle ...	1,482,029	326	10	8,618	2,055	10,673	1,067	10,673	42	1,621	8,805	...	...	82·49	...	6	...	...	...	...
20	Tellicherry Circle—																				
	Permanent Vaccinators ...	656,904	394	5	1,738	594	2,332	466	2,332	6	324	2,093	...	...	89·75	...	...	...	...	...	...
	Total of Circle ...	6,56,904	394	5	1,738	594	2,332	466	2,332	6	324	2,093	...	...	89·75	...	3	...	...	...	...
	Total of District ...	2,138,933	344	15	10,356	2,649	13,005	867	13,005	48	1,945	10,898	...	...	83·79	...	5	13,120	6	6,515	3·04
	Nellore District.																				
21	Nellore Circle—																				
	Permanent Vaccinators ...	703,867	180	13	3,015	2,885	5,900	454	5,623	201	2,330	5,138	277	192	91·37	69·31	...	...	...	...	...
	Zemindari do. ...	...	...	2	342	255	597	298	578	13	219	550	19	18	95·15	94·74	...	...	...	...	...
	Total of Circle ...	703,867	180	15	3,357	3,140	6,497	433	6,201	214	2,549	5,688	296	210	91·73	70·94	7	15,205	21	826	1·1
22	Ongole Circle—																				
	Permanent Vaccinators ...	643,022	197	15	2,047	1,659	3,706	247	3,706	78	1,734	3,125	...	...	84·32	...	...	...	...	...	...
	Private do. ...	...	...	1	92	79	171	171	171	4	80	145	...	...	84·79	...	...	...	...	...	...
	Total of Circle ...	643,022	197	16	2,139	1,738	3,877	242	3,877	82	1,814	3,270	...	...	84·34	...	4	8,425	13	466	·72
	Total of District ...	1,346,889	377	31	5,496	4,878	10,374	335	10,078	296	4,363	8,958	296	210	88·88	70·94	7	23,630	17	1,293	·96

A—VACCINE DEPARTMENT.

STATEMENT No. I *showing Particulars of Vaccination in the Madras Presidency during the Calendar Year* 1879—(Continued).

Number.	Circles and Districts.	Population of District or Circle according to the Census of 1871.	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 Vaccination.				Re-vaccination.		Percentage of Successful cases.		Persons successfully vaccinated per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous 5 Years.		Average Annual Number of Deaths from Small-pox during previous 5 Years.	
										Successful.											
									Total.	Under 1 Year.	Over 1 and under 6 Years.	Total of all Ages.	Total.	Successful.	Primary Vaccination.	Re-vaccination.		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Nilgiri District.				Males.	Females.	Total.														
23	Permanent Vaccinators ...	36,461	36	2	1,196	893	2,107	1,053	2,070	78	1,122	1,879	37	27	90·77	72·97	...	...	...	...	...
	Total of District ...	36,461	36	2	1,196	893	2,107	1,053	2,070	78	1,122	1,879	37	27	90·77	72·97	52	...	...	62	1·7
	North Arcot District.																				
24	Chittoor Circle—																				
	Permanent Vaccinators ...	1,326,292	254	21	5,887	4,544	10,431	497	10,431	1,015	5,862	9,941	...	...	95·30	...	...	...	...	...	...
	Total of Circle ...	1,326,292	254	21	5,887	4,544	10,431	497	10,431	1,015	5,862	9,941	...	...	95·30	...	7	13,567	10	822	·61
25	Vellore Circle—																				
	Permanent Vaccinators ...	638,861	391	10	2,393	2,073	4,466	447	4,461	517	2,592	3,816	5	2	85·54	40·	...	...	...	...	...
	Zemindari do. ...	...	...	1	198	134	332	332	332	42	175	274	...	...	82·53	...	...	...	...	...	...
	Total of Circle ...	638,861	391	11	2,591	2,207	4,798	436	4,793	559	2,767	4,090	5	2	85·33	40·	6	12,843	20	2,033	3·18
	Total of District ...	1,965,153	645	32	8,478	6,751	15,229	476	15,224	1,574	8,629	14,031	5	2	92·16	40·	7	26,410	13	2,885	1·46
	Salem District.																				
26	Oossoor Circle—																				
	Permanent Vaccinators ...	553,896	196	19	4,737	4,865	9,602	505	9,602	842	5,719	8,759	...	...	91·22	...	...	...	...	...	...
	Total of Circle ...	553,896	196	19	4,737	4,865	9,602	505	9,602	842	5,719	8,759	...	...	91·22	...	16	8,526	15	871	1·5
27	Salem Circle—																				
	Permanent Vaccinators ...	1,363,087	285	24	4,941	4,174	9,115	380	9,107	593	6,313	8,792	8	5	96·54	62·5	...	...	...	...	...
	Total of Circle ...	1,363,087	285	24	4,941	4,174	9,115	380	9,107	593	6,313	8,792	8	5	96·54	62·5	7	14,075	10	2,873	2·1
	Total of District ...	1,916,983	481	43	9,678	9,039	18,717	435	18,709	1,435	12,032	17,551	8	5	93·89	62·5	9	22,601	11	3,757	1·95
	South Arcot District.																				
28	Cuddalore Circle—																				
	Permanent Vaccinators ...	1,101,324	326	13	5,822	4,821	10,643	819	10,643	1,295	5,813	9,391	...	...	88·24	...	...	...	...	...	...
	Total of Circle ...	1,101,324	326	13	5,822	4,821	10,643	819	10,643	1,295	5,813	9,391	...	...	88·24	...	9	11,324	10	2,269	2·06
29	Virdachellum Circle—																				
	Permanent Vaccinators ...	598,684	382	8	2,627	2,401	5,028	628	5,028	438	2,946	4,533	...	...	90·15	...	...	...	...	...	...
	Total of Circle ...	598,684	382	8	2,627	2,401	5,028	628	5,028	438	2,946	4,533	...	...	90·15	...	9	4,747	8	819	1·36
	Total of District ...	1,700,008	708	21	8,449	7,222	15,671	746	15,671	1,733	8,759	13,924	...	...	88·85	...	8	15,324	9	3,128	1·83
	South Canara District.																				
30	No. I—South Canara Circle—																				
	Permanent Vaccinators ...	558,350	244	11	3,130	2,577	5,707	519	5,703	157	1,533	5,078	4	4	89·04	100·	...	...	...	...	...
	Hospital Assistant as Vaccinator in Amindivi Islands	...	...	...	111	75	186	186	186	2	88	165	...	...	88·71	...	...	...	...	...	...
	Total of Circle ...	558,350	244	11	3,241	2,652	5,893	536	5,889	159	1,621	5,243	4	4	89·03	100·	9	...	...	...	...
31	No. II—South Canara Circle—																				
	Permanent Vaccinators ...	330,300	156	9	4,436	2,594	7,030	781	6,990	80	1,442	6,051	40	19	86·55	47·5	...	...	...	...	...
	Total of Circle ...	330,300	156	9	4,436	2,594	7,030	781	6,990	80	1,442	6,051	40	19	86·55	47·5	18	...	...	...	...
	Total of District ...	888,650	202	20	7,677	5,246	12,923	646	12,879	239	3,063	11,294	44	23	87·69	52·27	12	21,677	24	1,727	1·94
	Tanjore District.																				
32	Negapatam Circle—																				
	Permanent Vaccinators ...	819,981	540	16	16,577	14,251	30,828	1,927	30,616	1,295	12,145	28,787	212	104	94·02	49·06	...	...	...	...	...
	Temporary do. ...	...	...	5	468	426	894	179	888	71	508	737	6	3	82·99	50·	...	...	...	...	...
	Total of Circle ...	819,981	540	21	17,045	14,677	31,722	1,512	31,504	1,366	12,653	29,524	218	107	93·71	49·08	36	10,039	12	2,026	2·4
33	Tanjore Circle—																				
	Permanent Vaccinators ...	969,738	436	18	12,925	11,416	24,341	1,352	24,341	2,202	11,326	21,328	...	...	87·62	...	...	...	...	...	...
	Total of Circle ...	969,738	436	18	12,925	11,416	24,341	1,352	24,341	2,202	11,326	21,328	...	...	87·62	...	22	11,611	12	2,488	2·56
	Total of District	1,789,719	976	39	29,970	26,093	56,063	1,438	55,845	3,568	23,979	50,852	218	107	91·06	49·08	29	21,651	12	4,565	2·55

A—VACCINE DEPARTMENT.

STATEMENT No. I *showing Particulars of Vaccination in the Madras Presidency during the Calendar Year* 1879—(Continued).

Number.	Circles and Districts.	Population of District or Circle according to the Census of 1871.	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 Vaccination.				Re-vaccination.		Percentage of Successful Cases.		Persons successfully vaccinated per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous 5 Years.		Average Annual Number of Deaths from Small-pox during previous 5 Years.	
									Total.	Successful.			Total.	Successful.	Primary Vaccination.	Re-vaccination.		Number.	Ratio per 1,000	Number.	Ratio per 1,000.
										Under 1 Year.	Over 1 and under 6 Years.	Total of all Ages.									
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Tinnevelly District.				Males.	Females.	Total.														
34	Shermadivi Circle—																				
	Permanent Vaccinators ...	463,294	372	12	4,729	4,212	8,941	745	8,941	757	5,226	7,746	...	...	86·63	...	...	...	...	...	...
	Temporary do. ...	...	...	2	146	152	298	149	298	28	112	220	...	...	73·82	...	...	...	...	...	...
	Total of Circle ...	463,294	372	14	4,875	4,364	9,239	660	9,239	785	5,338	7,966	...	...	86·12	...	17	5,188	11	365	·78
35	Tinnevelly Circle—																				
	Permanent Vaccinators ...	1,181,111	330	28	11,857	9,512	21,369	763	21,313	1,759	11,121	19,198	56	34	90·07	60·71	...	...	...	...	...
	Total of Circle ...	1,181,111	330	28	11,857	9.512	21,369	763	21,313	1,759	11,121	19,198	56	34	90·07	60·71	16	13,061	11	1,355	1·1
	Total of District ...	1,644,405	702	42	16,732	13,876	30,608	729	30,552	2,544	16.459	27,164	56	34	88·91	60·71	16	18,249	11	1,733	1·05
36	Trichinopoly District—																				
	Permanent Vaccinators ...	1,112,607	310	21	8,208	7.328	15.536	740	15,536	1,204	8,634	14,128	...	...	90·93	...	...	...	...	...	...
	Temporary do. ...	...	...	4	253	243	496	124	496	13	294	471	...	...	94·96	...	...	...	...	...	...
	Total of District ...	1,112,607	310	25	8,461	7,571	16,032	641	16,032	1,217	8,928	14,599	...	...	91·06	...	13	15,983	14	1,693	1·52
	Vizagapatam District.																				
37	Hill Tracts of Jeypore—																				
	Permanent Vaccinators ...	314,498	37	6	822	669	1,491	248	1,488	30	758	1,312	3	3	88·17	100·	...	...	...	...	...
	Zemindari do. ..	...	...	8	892	650	1,542	193	1.535	29	813	1,312	7	7	85·47	100·	...	...	...	...	...
	Total of Hill Tracts ...	314.498	37	14	1.714	1,319	3,033	217	3,023	59	1.571	2,624	10	10	86·80	100·	8	...	...	...	...
38	Vizagapatam Circle—																				
	Permanent Vaccinators ...	836,828	713	21	6,144	5,445	11,589	552	11,589	630	6,271	11,349	...	...	97·92	...	...	...	...	...	...
	Temporary do. ...	...	...	1	221	177	398	398	398	10	132	398	...	...	100·	...	...	...	...	...	...
	Total of Circle ...	836,828	713	22	6,365	5,622	11,987	545	11,987	640	6,403	11,747	...	...	97·99	...	14	9,006	11	107	·12
39	Vizianagrum Circle—																				
	Permanent Vaccinators ...	937,967	1,076	18	6,930	6,341	13,271	737	13,227	637	7,778	12,998	44	34	98·27	77·27	...	...	...	...	...
	Total of Circle ...	937,967	1,076	18	6,930	6,341	13,271	737	13,227	637	7,778	12,998	44	34	98·27	77·27	13	10,911	12	292	·31
	Total of District ...	2,089,293	1,826	54	15,009	13,282	28,291	524	28,237	1,336	15,752	27,369	54	44	96·92	81·48	13	22,824	11	411	·19
	Total of Circles and Districts.	...	...	579	208,281	170,908	379,207	655	377,373	34,057	187,667	342,573	1,834	1,122	90·78	61·18	...	...	...	...	...
	Medical Subordinates.																				
1	Hyderabad Subsidiary Force.	...	...	...	1,004	1,019	2,023	...	2,023	817	276	1,643	...	...	81·21	...	...	...	...	...	...
2	Mysore and Ceded Districts ...	...	...	...	1,925	583	2.586	...	2,508	383	186	1,354	78	24	53·98	30·77	...	...	...	...	...
3	Nagpore Force	...	...	...	629	420	1,097	...	1,049	374	200	778	48	28	74·16	58·3	...	...	...	...	...
4	Pegu Division	...	...	...	374	86	471	...	460	103	93	324	11	...	70·43	...	...	...	...	...	...
5	Presidency, Centre and Northern Districts	...	...	...	5,593	1,221	7,806	...	6,814	339	377	4,073	992	254	59·77	25·60	...	...	...	...	...
6	Southern Division, Malabar, and South Canara	...	...	...	5,291	795	7,332	...	6,086	390	319	4,021	1,246	558	66·07	44·78	...	...	...	...	...
	Total ...	...	...	...	14,816	4,124	21,315	...	18,940	2,406	1,451	12,193	2,375	864	64·38	36·38	...	...	...	...	...
	Municipalities.																				
1	Ádóni	22,723	...	1	264	286	550	550	550	273	227	519	...	...	94·36	...	22	735	32	21	·92
2	Anantapur	4,918	...	1	40	43	83	83	83	46	32	79	...	...	95·18	...	16	235	47	1	·20
3	Anakápalle	13,044	...	1	191	207	398	398	398	5	236	355	...	...	89·19	...	27	..	...	...	...
4	Bellary	51,766	...	3	678	579	1,257	419	1,209	460	438	1,009	48	11	83·46	...	19	1,188	23	52	1
5	Berhampore	21,670	...	1	267	201	468	468	468	28	194	388	...	...	82·91	...	18	...	...	18	·83
6	Bimlipatam	8,744	...	1	204	205	409	409	409	13	214	402	...	...	98·29	...	46	1,985	226	8	·91
7	Calicut	47,962	...	3	1,009	345	1,357	452	1,354	29	357	1,083	3	2	79·98	66·6	22	1,220	25	160	3·
8	Cannanore	31,358	...	1	703	433	1,136	1,136	1,133	76	605	963	3	3	84·99	100·	31	1,575	50	48	1·53
9	Karúr	9,378	...	1	184	198	382	382	382	110	200	355	...	...	92·93	...	37	223	23	7	·74
10	Chicacole	15,587	...	1	210	82	292	292	292	5	55	225	...	...	77·05	...	14	173	11	7	·44
11	Chillumbrum	15,519	...	1	270	217	487	487	487	78	317	455	...	...	93·43	...	29	343	22	26	1·6
12	Cochin	13,840	...	1	575	375	950	950	941	56	332	646	9	6	68·65	66·6	47	3,317	239	58	4·2
13	Cocanada	17,839	...	1	380	314	694	694	694	68	271	535	...	...	77·00	...	29	785	44	58	3·3
14	Coimbatore	35,310	...	1	382	352	734	734	780	286	376	693	4	3	94·93	75·	19	7,086	200	43	1·2
15	Kumbakónam	44,444	...	1	2,867	2,434	5,301	5,301	5,301	1,033	2,007	3,769	...	...	71·09	...	85	7,903	177	102	2·2
16	Conjeeveram	37,327	...	1	478	433	911	911	900	148	414	750	11	4	83·33	36·36	20	897	23	63	1·68
17	Coonoor	3,058	...	1	389	300	689	689	685	153	314	612	4	4	89·34	100·	201	558	182	6	1·96
18	Cuddalore	40,290	...	1	501	527	1,028	1,028	1,028	79	505	878	...	...	85·41	...	21	1,281	31	70	1·73
19	Cuddapah	16,275	...	1	202	68	270	270	270	14	62	159	...	...	58·8	...	10	282	11	14	·86

A—VACCINE DEPARTMENT.

STATEMENT No. I *showing Particulars of Vaccination in the Madras Presidency during the Calendar Year* 1879—(Continued).

Number.	Circles and Districts.	Population of District or Circle according to the Census of 1871.	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 Vaccination. Total.	Primary Vaccination. Successful. Under 1 Year.	Primary Vaccination. Successful. Over 1 and under 6 Years.	Primary Vaccination. Successful. Total of all Ages.	Re-vaccination. Total.	Re-vaccination. Successful.	Percentage of Successful Cases. Primary Vaccination.	Percentage of Successful Cases. Re-vaccination.	Persons successfully vaccinated per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous 5 Years. Number.	Average Annual Number of Persons successfully vaccinated during previous 5 Years. Ratio per 1,000.	Average Annual Number of Deaths from Small-pox during previous 5 Years. Number.	Average Annual Number of Deaths from Small-pox during previous 5 Years. Ratio per 1,000.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Municipalities—(Continued).																		
					Males.	Females.	Total.												
20	Dindigul	12,865	...	1	432	346	778	778	774	116	458	714	4	4	92·24	100·	55	2,525	196	9	·69
21	Ellore	25,487	...	1	379	396	775	775	722	17	278	598	53	48	82·82	90·56	25	594	23	27	1·05
22	Erode	10,201	...	1	171	150	321	321	321	114	183	313	...	...	97·51	...	30	211	20	28	1·27
23	Gooty	6,730							No Vaccinator was employed in this municipality.										
24	Guntúr	18,033	...	1	318	284	602	602	598	72	238	376	4	2	62·87	50·	21	714	39	18	·99
25	Kurnool	25,579	...	1	215	124	339	339	333	19	103	294	6	4	88·28	66·6	11	287	11	72	2·81
26	Madras	397,552	14,724	16	11,969	9,337	21,306	1,331	19,797	5,495	5,402	16,349	1,509	660	82·58	43·73	42	25,813	65	1,730	4·3
27	Madura	51,987	...	2	1,206	640	1,846	923	1,669	662	719	1,467	177	140	87·89	79·09	31	2,353	45	114	2·1
28	Mannárgudi	17,703	...	1	642	570	1,212	1,212	1,212	261	586	1,086	...	...	89·60	...	61	418	23	33	1·8
29	Mangalore	29,712	...	1	710	375	1,085	1,085	1,002	160	468	947	83	22	94·51	26·51	32	2,829	91	195	6·56
30	Masulipatam	36,188	...	1	344	373	717	717	707	73	350	685	10	8	96·88	80·	19	797	22	20	·55
31	Máyavaram	21,165	...	1	274	235	509	509	503	67	303	497	6	4	98·81	66·6	23	576	27	23	1·07
32	Mettupálaiyam								No Vaccinator was employed in this municipality.										
33	Negapatam	48,525	...	2	803	715	1,518	759	1,508	362	706	1,375	10	5	91·18	50·	28	724	13	101	2·08
34	Nellore	29,922	...	1	266	146	412	412	316	52	158	303	96	60	95·88	62·44	12	1,350	45	51	1·7
35	Ongole	7,392	...	1	122	65	187	187	175	9	30	83	12	12	47·43	100·	13	...	...	...	...
36	Ootacamund	9,982	...	1	354	365	719	719	711	159	382	655	8	5	92·12	62·5	65	762	76	30	3·
37	Palamcottah	17,945	...	1	308	216	524	524	447	75	176	382	77	33	85·45	42·85	23	390	22	36	2·
38	Pálghat	30,752	...	2	747	466	1,213	606	1,213	4	507	1,062	...	...	87·55	...	34	979	31	100	3·25
39	Rajahmundry	19,738	...	1	368	314	682	682	682	40	437	638	...	...	93·55	...	32	652	33	52	2·
40	Salem	50,012	...	3	577	455	1,032	344	1,032	407	482	942	...	...	91·28	...	19	1,253	25	72	1·4
41	Srirangam	18,655	...	3	403	322	730	243	725	93	373	639	5	4	88·14	80·	34	599	32	39	2·09
42	Tanjore	52,175	...	2	1,414	1,237	2,651	1,325	2,651	477	895	2,286	...	...	86·23	...	43	1,041	19	88	1·68
43	Tellicherry	20,504	...	1	672	312	984	984	975	48	319	850	9	5	87·28	55·5	42	5,221	205	66	3·21
44	Tinnevelly	21,044	...	1	339	236	575	575	525	34	243	396	50	26	75·43	52·	20	426	20	37	1·76
45	Trichinopoly	76,530	...	6	1,123	969	2,819	386	2,092	365	982	1,869	227	179	89·34	78·85	26	2,268	29	135	1·76
46	Tuticorin	10,565	...	1	448	391	839	839	832	106	318	632	7	4	75·96	57·14	60	637	60	58	5·4
47	Vellore	38,022	...	1	359	320	679	679	677	215	247	593	2	1	87·59	50·	15	2,640	69	25	·65
48	Vizagapatam	32,191	...	1	569	488	1,057	1,057	1,025	104	390	957	32	32	93·37	100·	31	508	16	44	1·36
49	Vizianagram	20,169	...	1	341	336	677	677	673	43	273	657	4	4	97·62	100·	33	694	34	5	·24
50	Wálajápet	12,103	...	1	200	145	345	345	345	30	165	268	...	...	77·68	...	22	262	21	14	1·15
	Total of Municipalities ...	16,20,480	...	80	35,867	27,927	64,029	800	61,556	12,639	28,327	51,788	2,473	1,294	84·13	52·36	33	40,074	24	4,002	2·46
	Grand Total ...	*315,97,872	*226·2	659	258,964	202,959	464,551	672	457,869	49,102	212,445	406,554	6,682	3,281	88·79	49·10	13	439,676	13	47,375	1·49

N.B.—Dispensary vaccination is excluded from this statement and is given separately in Statement No. II.

* Figures taken from the Census Report of 1871. In finding the average in Column No. 7, the total work of Medical Subordinates is excluded.

The sex of 2,628*a* re-vaccinations performed in Municipal Towns, Local Fund Circles and by Medical Subordinates are unknown.

a Local Funds 18
Medical Subordinates ... 2,375
Municipalities 235

A—VACCINE DEPARTMENT.

STATEMENT No. II *showing the Cost of the Department in the Madras Presidency during the Calendar Year* 1879.

Number.	Circles and Districts.	Establishment. Inspector of Vaccination and Deputy Sanitary Commissioner.	First-Class Deputy Inspectors.	Second-Class Deputy Inspectors.	Vaccinators. First-Class.	Vaccinators. Second-Class.	Probationers.	Peons.	Expenditure. Pay of Establishment.	Travelling Allowance.	Contingencies.	Total Cost.	Paid from Imperial Funds.	Provincial Funds.	Local Funds.	Municipalities.	Native States, Zemindars or Private Funds.	Total.	Number of all successful Vaccinations and Re-vaccinations.	Average Cost of each successful Case.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
									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.
	Bellary District.																			
1	Bellary Circle— Permanent Vaccinators ...	...	1	...	2	11	...	...	2,522 10 7	952 14 8	65 14 0	3,541 7 3	...	...	3,541 7 3	...	...	3,541 7 3	5,114	0 11 1
	Total of Circle ...	...	1	...	2	11	...	...	2,522 10 7	952 14 8	65 14 0	3,541 7 3	...	...	3,541 7 3	...	...	3,541 7 3	5,114	0 11 1
2	Gooty Circle— Permanent Vaccinators ...	...	...	1	4	3	2	...	1,331 5 10	560 10 0	48 1 0	1,940 0 10	...	...	1,940 0 10	...	...	1,940 0 10	3,119	0 9 11
	Total of Circle ...	...	...	1	4	3	2	...	1,331 5 10	560 10 0	48 1 0	1,940 0 10	...	...	1,940 0 10	...	...	1,940 0 10	3,119	0 9 11
3	Penukonda Circle— Permanent Vaccinators ...	...	...	1	3	1	...	...	1,015 5 4	28 9 0	13 2 0	1,057 0 4	...	...	1,057 0 4	...	...	1,057 0 4	1,793	0 9 5
	Total of Circle ...	...	...	1	3	1	...	...	1,015 5 4	28 9 0	13 2 0	1,057 0 4	...	...	1,057 0 4	...	...	1,057 0 4	1,793	0 9 5
	Total of District ...	...	1	2	9	15	2	...	4,869 5 9	1,542 1 8	127 1 0	6,538 8 5	...	...	6,538 8 5	...	...	6,538 8 5	10,026	0 10 5
4	*Chingleput District.*																			
	Permanent Vaccinators ...	...	1	...	6	7	2	...	2,749 12 11	219 0 0	278 3 2	3,247 0 1	...	...	3,247 0 1	...	...	3,247 0 1	11,478	0 4 6
	Total of District ...	...	1	...	6	7	2	...	2,749 12 11	219 0 0	278 3 2	3,247 0 1	...	...	3,247 0 1	...	...	3,247 0 1	11,478	0 4 6
	Coimbatore District.																			
5	North Coimbatore Circle— Permanent Vaccinators ...	...	1	...	2	4	10	1	2,411 11 4	712 15 0	70 6 6	3,195 0 10	...	...	3,195 0 10	...	...	3,195 0 10	15,587	0 3 3
	Temporary do. ...	...	...	...	...	2	...	...	219 3 10	...	...	219 3 10	...	...	219 3 10	...	...	219 3 10	2,128	0 1 7
	Total of Circle ...	...	1	...	2	6	10	1	2,630 15 2	712 15 0	70 6 6	3,414 4 8	...	...	3,414 4 8	...	...	3,414 4 8	17,715	0 3 1
6	South Coimbatore Circle— Permanent Vaccinators ...	...	1	...	2	3	9	1	2,040 15 7	362 4 0	11 4 0	2,414 7 7	...	...	2,414 7 7	...	...	2,414 7 7	13,642	0 2 10
	Temporary do. ...	...	...	...	...	2	...	...	213 0 0	...	...	213 0 0	...	...	213 0 0	...	...	213 0 0	2,601	0 1 4
	Total of Circle ...	...	1	...	2	5	9	1	2,253 15 7	362 4 0	11 4 0	2,627 7 7	...	...	2,627 7 7	...	...	2,627 7 7	16,243	0 2 7
	Total of District ...	...	2	...	4	11	19	2	4,884 14 9	1,075 3 0	81 10 6	6,041 12 3	...	...	6,041 12 3	...	...	6,041 12 3	33,958	0 2 10
	Cuddapah District.																			
7	Cuddapah Circle— Permanent Vaccinators ...	...	1	...	7	7	3	1	2,854 9 0	1,044 8 6	55 10 6	3,954 12 0	...	...	3,954 12 0	...	...	3,954 12 0	3,939	1 0 0
	Total of Circle ...	...	1	...	7	7	3	1	2,854 9 0	1,044 8 6	55 10 6	3,954 12 0	...	...	3,954 12 0	...	...	3,954 12 0	3,939	1 0 0
8	Madanapalle Circle— Permanent Vaccinators ...	...	1	...	4	9	4	1	2,665 7 6	...	30 12 0	2,696 3 6	...	...	2,696 3 6	...	...	2,696 3 6	2,091	1 4 7
	Total of Circle ...	...	1	...	4	9	4	1	2,665 7 6	...	30 12 0	2,696 3 6	...	...	2,696 3 6	...	...	2,696 3 6	2,091	1 4 7
	Total of District ...	...	2	...	11	16	7	2	5,520 0 6	1,044 8 6	86 6 6	6,650 15 6	...	...	6,650 15 6	...	...	6,650 15 6	6,030	1 1 8
	Ganjam District.																			
9	Chetterpore Circle— Permanent Vaccinators ...	...	1	...	8	10	2	1	3,751 2 2	310 15 0	127 10 10	4,189 12 0	...	...	4,189 12 0	...	...	4,189 12 0	10,542	0 6 4
	Total of Circle ...	...	1	...	8	10	2	1	3,751 2 2	310 15 0	127 10 10	4,189 12 0	...	...	4,189 12 0	...	...	4,189 12 0	10,542	0 6 4

A—VACCINE DEPARTMENT.

STATEMENT No. II *showing the Cost of the Department in the Madras Presidency during the Calendar Year* 1879—(Continued).

Number.	Circles and Districts.	Establishment. Inspector of Vaccination and Deputy Sanitary Commissioner.	First-Class Deputy Inspectors.	Second-Class Deputy Inspectors.	Vaccinators. First-Class.	Vaccinators. Second-Class.	Probationers.	Peons.	Expenditure. Pay of Establishment.	Travelling Allowance.	Contingencies.	Total Cost.	Paid from Imperial Funds.	Provincial Funds.	Local Funds.	Municipalities.	Native States, Zemindars or private Funds.	Total.	Number of all successful Vaccinations and Re-vaccinations.	Average Cost of each successful Case.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
									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.
10	Chicacole Circle— Permanent Vaccinators ...	...	1	...	2	8	...	...	2,081 8 0	120 0 0	53 13 7	2,255 5 7	...	...	2,255 5 7	...	...	2,255 5 7	5,479	0 6 7
	Total of Circle ...	...	1	...	2	8	...	...	2,081 8 0	120 0 0	53 13 7	2,255 5 7	...	...	2,255 5 7	...	...	2,255 5 7	5,479	0 6 7
11	Hill Tracts of Ganjam— Permanent Vaccinators ...	...	1	...	...	6	...	...	1,446 10 10	454 0 0	10 14 0	1,911 10 10	...	1,911 10 10	...	...	...	1,911 10 10	3,019	0 10 1
	Total of Hill Tracts ...	...	1	...	...	6	...	...	1,446 10 10	454 0 0	10 14 0	1,911 10 10	...	1,911 10 10	...	...	...	1,911 10 10	3,019	0 10 1
	Total of District ...	...	3	...	10	24	2	1	7,279 5 0	885 1 0	192 6 5	8,356 12 5	...	1,911 10 10	6,445 1 7	...	...	8,356 12 5	19,040	0 7 0
	Godávari District.																			
12	Cocanada Circle— Permanent Vaccinators ...	...	1	...	6	8	3	1	3,163 8 8	1,145 15 0	469 11 3	4,779 2 11	...	617 2 0	4,162 0 11	...	...	4,779 2 11	9,110	0 8 5
	Zemindari do. ...	...	...	...	2	...	...	...	352 8 0	36 2 0	...	388 10 0	...	...	200 0 0	...	188 10 0	388 10 0	968	0 6 5
	Total of Circle ...	...	1	...	8	8	3	1	3,516 0 8	1,182 1 0	469 11 3	5,167 12 11	...	617 2 0	4,362 0 11	...	188 10 0	5,167 12 11	10,078	0 8 2
13	Ellore Circle— Permanent Vaccinators ...	...	1	...	5	5	2	1	2,211 10 10	681 1 0	135 4 8	3,028 0 6	...	...	3,028 0 6	...	...	3,028 0 6	4,876	0 9 11
	Total of Circle ...	...	1	...	5	5	2	1	2,211 10 10	681 1 0	135 4 8	3,028 0 6	...	...	3,028 0 6	...	...	3,028 0 6	4,876	0 9 11
	Total of District ...	...	2	...	13	13	5	2	5,727 11 6	1,863 2 0	604 15 11	8,195 13 5	...	617 2 0	7,390 1 5	...	188 10 0	8,195 13 5	14,954	0 8 9
	Kistna District.																			
14	Guntúr Circle— Permanent Vaccinators ...	...	1	...	3	9	2	1	2,344 9 11	961 12 0	42 11 8	3,349 1 7	...	...	3,349 1 7	...	...	3,349 1 7	4,266	0 12 7
	Total of Circle ...	...	1	...	3	9	2	1	2,344 9 11	961 12 0	42 11 8	3,349 1 7	...	...	3,349 1 7	...	...	3,349 1 7	4,266	0 12 7
15	Masulipatam Circle— Permanent Vaccinators ...	...	1	...	7	7	2	1	2,951 2 4	657 13 0	128 2 11	3,737 2 3	...	...	3,737 2 3	...	...	3,737 2 3	5,697	0 10 6
	Total of Circle ...	...	1	...	7	7	2	1	2,951 2 4	657 13 0	128 2 11	3,737 2 3	...	...	3,737 2 3	...	...	3,737 2 3	5,697	0 10 6
	Total of District ...	...	2	...	10	16	4	2	5,295 12 3	1,619 9 0	170 14 7	7,086 3 10	...	...	7,086 3 10	...	...	7,086 3 10	9,963	0 11 5
16	*Kurnool District.*																			
	Permanent Vaccinators ...	...	1	...	4	7	2	1	2,297 5 7	208 0 0	85 2 6	2,590 8 1	...	...	2,590 8 1	...	...	2,590 8 1	3,279	0 12 10
	Total of District ...	...	1	...	4	7	2	1	2,297 5 7	208 0 0	85 2 6	2,590 8 1	...	...	2,590 8 1	...	...	2,590 8 1	3,279	0 12 10
17	Madras Presidency	1	1	...	...	...	...	...	12,660 0 0	1,377 12 0	343 4 0	14,381 0 0	...	14,381 0 0	...	...	...	14,381 0 0	...	...
	Total ...	1	1	...	...	...	...	...	12,660 0 0	1,377 12 0	343 4 0	14,381 0 0	...	14,381 0 0	...	...	...	14,381 0 0	...	...
	Madura District.																			
18	Dindigul Circle— Permanent Vaccinators ...	...	...	1	6	9	3	...	3,000 10 2	1,068 0 7	155 2 0	4,223 12 9	...	...	4,223 12 9	...	...	4,223 12 9	14,413	0 5 11
	Total of Circle ...	...	...	1	6	9	3	...	3,000 10 2	1,068 0 7	155 2 0	4,223 12 9	...	...	4,223 12 9	...	...	4,223 12 9	11,413	0 5 11
19	Madura Circle— Permanent Vaccinators ...	...	1	...	12	20	2	1	5,777 6 0	32 7 0	125 13 2	5,935 10 2	...	...	5,935 10 2	...	...	5,935 10 2	24,583	0 3 10
	Total of Circle ...	...	1	...	12	20	2	1	5,777 6 0	32 7 0	125 13 2	5,935 10 2	...	...	5,935 10 2	...	...	5,935 10 2	24,583	0 3 10
	Total of District ...	...	1	1	18	29	5	1	8,778 0 2	1,100 7 7	280 15 2	10,159 6 11	...	...	10,159 6 11	...	...	10,159 6 11	35,996	0 4 6

A—VACCINE DEPARTMENT.

STATEMENT No. II *showing the Cost of the Department in the Madras Presidency during the Calendar Year* 1879—(Continued).

Number.	Circles and Districts.	Establishment. Inspector of Vaccination and Deputy Sanitary Commissioner.	First-Class Deputy Inspectors.	Second-Class Deputy Inspectors.	Vaccinators. First-Class.	Vaccinators. Second-Class.	Probationers.	Peons.	Expenditure. Pay of Establishment.	Travelling Allowance.	Contingencies.	Total Cost.	Paid from Imperial Funds.	Provincial Funds.	Local Funds.	Municipalities.	Native States, Zemindars or private Funds.	Total.	Number of all successful Vaccinations and Re-vaccinations.	Average Cost of each successful Case.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
									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.
	Malabar District.																			
20	Calicut Circle—																			
	Permanent Vaccinators ...	...	1	...	2	5	...	...	2,143 14 11	129 8 0	95 8 6	2,368 15 5	...	...	2,368 15 5	...	...	2,368 15 5	8,541	0 4 5
	Temporary do. ...	...	...	...	...	2	...	...	41 8 4	...	...	41 8 4	...	...	41 8 4	...	...	41 8 4	264	0 2 8
	Total of Circle ...	...	1	...	2	7	...	...	2,185 7 3	129 8 0	95 8 6	2,410 7 9	..	...	2,410 7 9	...	...	2,410 7 9	8,805	0 4 5
21	Tellicherry Circle—																			
	Permanent Vaccinators ...	...	...	1	2	3	...	...	495 9 9	148 9 0	14 14 6	659 1 3	...	...	659 1 3	...	...	659 1 3	2,093	0 5 0
	Total of Circle ...	...	...	1	2	3	...	...	495 9 9	148 9 0	14 14 6	659 1 3	...	...	659 1 3	...	...	659 1 3	2,093	0 5 0
	Total of District ...	...	1	1	4	10	...	...	2,681 1 0	278 1 0	110 7 0	3,069 9 0	...	...	3,069 9 0	...	...	3,069 9 0	10,898	0 4 6
	Nellore District.																			
22	Nellore Circle—																			
	Permanent Vaccinators ...	...	1	...	4	7	4	1	2,827 10 8	767 5 0	65 9 3	3,660 8 11	...	...	3,660 8 11	...	...	3,660 8 11	5,330	0 10 11
	Zemindari do. ...	...	...	...	...	2	...	...	180 0 0	..	..	180 0 0	...	...	...	...	180 0 0	180 0 0	568	0 5 1
	Total of Circle ...	...	1	...	4	9	4	1	3,007 10 8	767 5 0	65 9 3	3,840 8 11	...	...	3,660 8 11	...	180 0 0	3,840 8 11	5,898	0 10 5
23	Ongole Circle—																			
	Permanent Vaccinators ...	..	1	...	4	7	4	1	2,634 2 2	737 12 10	34 1 6	3,406 0 6	...	...	3,406 0 6	...	...	3,406 0 6	3,125	1 1 5
	Private do. ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total of Circle ...	...	1	...	4	7	4	1	2,634 2 2	737 12 10	34 1 6	3,406 0 6	...	...	3,406 0 6	...	...	3,406 0 6	3,125	1 1 5
	Total of District ...	...	2	...	8	16	8	2	5,641 12 10	1,505 1 10	99 10 9	7,246 9 5	...	...	7,066 9 5	...	180 0 0	7,246 9 5	9,023	0 12 10
24	*Nilgiri District.*																			
	Permanent Vaccinators ...	...	...	...	2	...	...	...	547 0 0	...	82 5 3	629 5 3	...	...	629 5 3	...	...	629 5 3	1,906	0 5 3
	Total of District ...	...	...	...	2	...	...	...	547 0 0	...	82 5 3	629 5 3	...	...	629 5 3	...	...	629 5 3	1,906	0 5 3
	North Arcot District.																			
25	Chittoor Circle—																			
	Permanent Vaccinators ...	...	1	...	8	9	4	1	3,609 13 1	234 13 0	101 10 8	3,946 4 9	...	...	3,946 4 9	...	...	3,946 4 9	9,941	0 6 4
	Total of Circle ...	...	1	...	8	9	4	1	3,609 13 1	234 13 0	101 10 8	3,946 4 9	...	...	3,946 4 9	...	...	3,946 4 9	9,941	0 6 4
26	Vellore Circle—																			
	Permanent Vaccinators ...	...	1	...	5	3	2	1	2,195 7 8	371 5 0	64 14 3	2,631 10 11	...	...	2,631 10 11	...	...	2,631 10 11	3,818	0 11 2
	Zemindari do. ...	..	...	...	...	1	...	...	113 5 4	...	...	113 5 4	...	...	...	...	113 5 4	113 5 4	274	0 6 7
	Total of Circle ...	...	1	...	5	4	2	1	2,308 13 0	371 5 0	64 14 3	2,745 6 3	...	..	2,631 10 11	...	113 5 4	2,745 0 3	4,092	0 10 9
	Total of District ...	...	2	...	13	13	6	2	5,918 10 1	606 2 0	166 8 11	6,691 5 0	...	...	6,577 15 8	...	113 5 4	6,691 5 0	14,033	0 7 8
	Salem District.																			
27	Hosúr Circle—																			
	Permanent Vaccinators ...	...	...	1	3	9	7	1	1,953 3 4	210 12 0	111 0 4	2,274 15 8	...	...	2,274 15 8	...	...	2,274 15 8	8,759	0 4 2
	Total of Circle ...	...	...	1	3	9	7	1	1,953 3 4	210 12 0	111 0 4	2,274 15 8	...	...	2,274 15 8	...	...	2,274 15 8	8,759	0 4 2
28	Salem Circle—																			
	Permanent Vaccinators ...	...	1	...	6	14	4	1	3,211 15 8	158 4 0	68 13 6	3,439 1 2	...	...	3,439 1 2	...	...	3,439 1 2	8,797	0 6 3
	Total of Circle ...	...	1	...	6	14	4	1	3,211 15 8	158 4 0	68 13 6	3,439 1 2	...	...	3,439 1 2	...	...	3,439 1 2	8,797	0 6 3
	Total of District ...	...	1	1	9	23	11	2	5,165 3 0	369 0 0	179 13 10	5,714 0 10	...	...	5,714 0 10	...	...	5,714 0 10	17,556	0 5 2

A—VACCINE DEPARTMENT.

STATEMENT No. II *showing the Cost of the Department in the Madras Presidency during the Calendar Year* 1879—(Continued).

Number.	Circles and Districts.	Establishment. Inspector of Vaccination and Deputy Sanitary Commissioner.	Establishment. Deputy First-Class Inspectors.	Establishment. Deputy Second-Class Inspectors.	Establishment. Vaccinators. First-Class.	Establishment. Vaccinators. Second-Class.	Establishment. Probationers.	Establishment. Peons.	Expenditure. Pay of Establishment.	Expenditure. Travelling Allowance.	Expenditure. Contingencies.	Expenditure. Total Cost.	Paid from. Imperial Funds.	Paid from. Provincial Funds.	Paid from. Local Funds.	Paid from. Municipalities.	Paid from. Native States, Zemindars or private Funds.	Paid from. Total.	Number of all successful Vaccinations and Re-vaccinations.	Average Cost of each successful Case.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	South Arcot District.								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.
29	Cuddalore Circle— Permanent Vaccinators ...	...	1	...	5	8	...	1	2,760 11 1	77 6 0	21 10 6	2,859 11 7	...	...	2,859 11 7	...	...	2,859 11 7	9,391	0 4 10
	Total of Circle ...	...	1	...	5	8	...	1	2,760 11 1	77 6 0	21 10 6	2,859 11 7	...	...	2,859 11 7	...	...	2,859 11 7	9,391	0 4 10
30	Vridháchalem Circle— Permanent Vaccinators ...	...	...	1	3	4	1	1	1,633 0 3	69 11 6	48 11 6	1,751 7 3	...	...	1,751 7 3	...	...	1,751 7 3	4,533	0 6 2
	Total of Circle ...	...	...	1	3	4	1	1	1,633 0 3	69 11 6	48 11 6	1,751 7 3	...	...	1,751 7 3	...	...	1,751 7 3	4,533	0 6 2
	Total of District ...	...	1	1	8	12	1	2	4,393 11 4	147 1 6	70 6 0	4,611 2 10	...	...	4,611 2 10	...	...	4,611 2 10	13,924	0 5 4
	South Canara District.																			
31	No. I—South Canara Circle— Permanent Vaccinators ...	...	1	...	3	4	4	1	1,975 12 2	135 0 0	68 1 8	2,178 13 10	...	...	2,178 13 10	...	...	2,178 13 10	5,082	0 6 9
	Hospital Assistant as Vaccinator in Amindivi Islands.	...	...	...	...	...	...	...	120 0 0	...	...	120 0 0	...	...	120 0 0	...	...	120 0 0	165	0 11 7
	Total of Circle ...	...	1	...	3	4	4	1	2,095 12 2	135 0 0	68 1 8	2,298 13 10	...	...	2,298 13 10	...	...	2,298 13 10	5,247	0 6 11
32	No. II—South Canara Circle— Permanent Vaccinators ...	...	...	1	2	3	4	1	1,572 11 5	193 4 6	42 1 5	1,808 1 4	...	...	1,808 1 4	...	...	1,808 1 4	6,070	0 4 9
	Total of Circle ...	...	...	1	2	3	4	1	1,572 11 5	193 4 6	42 1 5	1,808 1 4	...	...	1,808 1 4	...	...	1,808 1 4	6,070	0 4 9
	Total of District ...	...	1	1	5	7	8	2	3,668 7 7	328 4 6	110 3 1	4,106 15 2	...	...	4,106 15 2	...	...	4,106 15 2	11,317	0 5 9
	Tanjore District.																			
33	Negapatam Circle— Permanent Vaccinators ...	...	1	...	5	6	...	1	2,381 9 4	99 0 0	108 9 1	2,589 2 5	...	...	2,589 2 5	...	...	2,589 2 5	28,891	0 1 5
	Temporary do. ...	...	...	...	...	3	1	...	117 4 2	...	...	117 4 2	...	...	117 4 2	...	...	117 4 2	740	0 2 6
	Total of Circle ...	...	1	...	5	9	1	1	2,498 13 6	99 0 0	108 9 1	2,706 6 7	...	...	2,706 6 7	...	...	2,706 6 7	29,631	0 1 6
34	Tanjore Circle— Permanent Vaccinators ...	...	1	...	4	12	2	1	2,948 11 5	91 8 0	152 13 0	3,193 0 5	...	...	3,193 0 5	...	...	3,193 0 5	21,328	0 2 4
	Total of Circle ...	...	1	...	4	12	2	1	2,948 11 5	91 8 0	152 13 0	3,193 0 5	...	...	3,193 0 5	...	...	3,193 0 5	21,328	0 2 4
	Total of District ...	...	2	...	9	21	3	2	5,447 8 11	190 8 0	261 6 1	5,899 7 0	...	...	5,899 7 0	...	...	5,899 7 0	50,959	0 1 10
	Tinnevelly District.																			
35	Shermádevi Circle— Permanent Vaccinators ...	...	...	1	3	7	1	1	1,801 5 8	115 12 0	60 9 9	1,977 11 5	...	...	1,977 11 5	...	...	1,977 11 5	7,746	0 4 1
	Temporary do. ...	...	...	...	...	2	...	...	26 7 2	...	...	26 7 2	...	...	26 7 2	...	...	26 7 2	220	0 1 11
	Total of Circle ...	...	...	1	3	9	1	1	1,827 12 10	115 12 0	60 9 9	2,004 2 7	...	...	2,004 2 7	...	...	2,004 2 7	7,966	0 4 0
36	Tennevelly Circle— Permanent Vaccinators ...	...	1	...	6	10	12	...	4,045 4 4	...	401 12 8	4,447 1 0	...	...	4,447 1 0	...	...	4,447 1 0	19,232	0 3 8
	Total of Circle ...	...	1	...	6	10	12	...	4,045 4 4	...	401 12 8	4,447 1 0	...	...	4,447 1 0	...	...	4,447 1 0	19,232	0 3 8
	Total of District ...	...	1	1	9	19	13	1	5,873 1 2	115 12 0	462 6 5	6,451 3 7	...	...	6,451 3 7	...	...	6,451 3 7	27,198	0 3 9
37	*Trichinopoly District.*																			
	Permanent Vaccinators ...	...	1	...	5	12	4	1	3,178 14 8	284 5 0	83 6 3	3,546 9 11	...	...	3,546 9 11	...	...	3,546 9 11	14,128	0 4 0
	Temporary do. ...	...	...	...	...	4	...	...	60 0 0	...	...	60 0 0	...	...	60 0 0	...	...	60 0 0	471	0 2 0
	Total of District ...	...	1	...	5	16	4	1	3,238 14 8	284 5 0	83 6 3	3,606 9 11	...	...	3,606 9 11	...	...	3,606 9 11	14,599	0 3 11

A—VACCINE DEPARTMENT.

STATEMENT No. II *showing the Cost of the Department in the Madras Presidency during the Calendar Year* 1879—(Continued).

Number.	Circles and Districts.	Establishment. Inspector of Vaccination and Deputy Sanitary Commissioner.	First-Class Deputy Inspectors.	Second-Class Deputy Inspectors.	Vaccinators. First-Class.	Vaccinators. Second-Class.	Probationers.	Peons.	Expenditure. Pay of Establishment.	Travelling Allowance.	Contingencies.	Total Cost.	Paid from Imperial Funds.	Provincial Funds.	Local Funds.	Municipalities.	Native States, Zemindars or private Funds.	Total.	Number of all successful Vaccinations and Re-vaccinations.	Average Cost of each successful Case.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	Vizagapatam District.								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.
38	Hill Tracts of Jeypore—																			
	Permanent Vaccinators ...	...	1	...	...	6	...	...	1,434 3 8	442 8 0	43 6 4	1,920 2 0	...	1,920 2 0	...	...	...	1,920 2 0	1,315	1 7 4
	Zemindari do. ...	...	...	...	...	8	...	...	929 6 8	...	...	929 6 8	...	...	...	...	929 6 8	929 6 8	1,819	0 11 3
	Total of Hill Tracts ...	...	1	...	...	14	...	...	2,363 10 4	442 8 0	43 6 4	2,849 8 8	...	1,920 2 0	...	...	929 6 8	2,849 8 8	2,634	1 1 3
39	Vizagapatam Circle—																			
	Permanent Vaccinators ...	...	1	...	9	9	3	...	3,617 4 0	244 8 0	1,309 3 0	5,170 15 0	...	271 8 6	4,899 6 6	...	...	5,170 15 0	11,349	0 7 3
	Temporary do. ...	...	...	...	...	...	1	...	16 8 0	24 12 0	19 6 0	60 10 0	...	...	60 10 0	...	...	60 10 0	398	0 2 5
	Total of Circle ...	...	1	...	9	9	4	...	3,633 12 0	269 4 0	1,328 9 0	5,231 9 0	...	271 8 6	4,960 0 6	...	...	5,231 9 0	11,747	0 7 2
40	Vizianagrum Circle—																			
	Permanent Vaccinators ...	...	...	1	7	11	3	...	3,425 9 7	1,285 13 0	96 0 0	4,807 6 7	...	...	4,807 6 7	...	...	4,807 6 7	13,032	0 5 10
	Total of Circle ...	...	...	1	7	11	3	...	3,425 9 7	1,285 13 0	96 0 0	4,807 6 7	...	...	4,807 6 7	...	...	4,807 6 7	13,032	0 5 10
	Total of District ...	...	2	1	16	34	7	...	9,422 15 11	1,997 9 0	1,467 15 4	12,888 8 3	...	2,191 10 6	9,767 7 1	...	929 6 8	12,888 8 3	27,413	0 7 6
	Total of Circles and Districts...	1	30	9	173	309	109	25	112,060 10 11	16,756 9 7	5,345 8 8	134,162 13 2	...	19,101 7 4	113,649 15 10	...	1,411 6 0	134,162 13 2	343,550	0 6 3
	Municipalities.																			
1	Ádóni ...	...	...	...	1	...	...	...	179 0 3	...	9 10 0	188 10 3	...	...	...	188 10 3	...	188 10 3	519	0 5 10
2	Anantapur	...	...	...	...	1	...	...	16 7 7	...	...	16 7 7	...	...	...	16 7 7	...	16 7 7	79	0 3 4
3	Anakápalle	...	...	...	...	1	...	...	120 0 0	...	23 3 0	143 3 0	...	...	...	143 3 0	...	143 3 0	355	0 6 5
4	Bellary ...	...	...	...	1	2	...	...	451 0 0	...	78 1 6	529 1 6	...	...	...	529 1 6	...	529 1 6	1,020	0 8 3
5	Berhampore	...	...	...	...	1	...	...	120 0 0	...	7 2 0	127 2 0	...	...	...	127 2 0	...	127 2 0	388	0 5 3
6	Bimlipatam	...	...	...	...	1	...	...	120 0 0	...	18 0 0	138 0 0	...	...	...	138 0 0	...	138 0 0	402	0 5 6
7	Calicut ...	...	...	...	1	2	...	...	364 0 0	...	12 0 0	376 0 0	...	...	...	376 0 0	...	376 0 0	1,085	0 5 6
8	Cannanore	...	...	...	1	...	...	...	240 0 0	...	...	240 0 0	...	...	...	240 0 0	...	240 0 0	966	0 3 11
9	Karúr ...	...	...	...	1	...	...	...	165 0 0	...	2 8 6	167 8 6	...	...	...	167 8 6	...	167 8 6	355	0 7 7
10	Chicacole	...	...	...	...	1	...	...	144 0 0	...	8 9 0	152 9 0	...	...	...	152 9 0	...	152 9 0	225	0 10 10
11	Chidambaram	...	...	...	...	1	...	...	120 0 0	...	2 3 0	122 3 0	...	...	...	122 3 0	...	122 3 0	455	0 4 4
12	Cochin ...	...	...	...	1	...	...	...	168 0 0	...	27 2 6	195 2 6	...	...	...	195 2 6	...	195 2 6	652	0 4 9
13	Cocanada	...	...	...	1	...	...	...	216 0 0	...	...	216 0 0	...	...	...	216 0 0	...	216 0 0	535	0 6 5
14	Coimbatore	...	...	...	1	...	...	...	180 0 0	...	1 3 2	181 3 2	...	...	...	181 3 2	...	181 3 2	696	0 4 2
15	Kumbakónam	...	...	..	1	...	...	...	177 13 2	...	179 13 6	357 10 8	...	...	...	357 10 8	...	357 10 8	3,769	0 1 6
16	Conjeeveram	...	...	...	1	...	...	...	180 0 0	...	30 0 0	210 0 0	...	...	...	210 0 0	...	210 0 0	754	0 4 5
17	Coonoor	...	...	...	1	...	...	...	180 0 0	...	39 10 0	219 10 0	...	...	...	219 10 0	...	219 10 0	616	0 5 8
18	Cuddalore	...	...	...	1	...	2	...	280 0 0	...	77 0 0	357 0 0	...	...	120 0 0	237 0 0	...	357 0 0	878	0 6 6
19	Cuddapah	...	...	...	1	1	...	...	136 9 10	...	10 0 0	146 9 10	...	...	...	146 9 10	...	146 9 10	159	0 14 9
20	Dindigul	...	...	...	1	...	...	...	148 8 10	...	...	148 8 10	...	...	...	148 8 10	...	148 8 10	718	0 3 4
21	Ellore ...	...	...	...	1	...	...	...	216 0 0	...	5 10 0	221 10 0	...	...	...	221 10 0	...	221 10 0	646	0 5 6
22	Erode ...	...	...	..	...	1	...	...	125 0 0	...	3 0 0	128 0 0	...	...	...	128 0 0	...	128 0 0	313	0 6 6
23	Gooty ...	...	...	...	No Vaccinator was employed in this Municipality.															
24	Guntúr ...	...	...	...	1	...	...	...	214 0 0	...	43 8 0	257 8 0	...	...	...	257 8 0	...	257 8 0	378	0 10 11
25	Kurnool ...	...	...	...	1	...	...	...	138 0 0	...	...	138 0 0	...	...	...	138 0 0	...	138 0 0	298	0 7 5
26	Madras ...	...	1	...	4	12	...	1	3,195 13 0	...	1,461 15 11	4,657 13 2	...	...	...	4,657 13 2	...	4,657 13 2	17,009	0 4 5
27	Madura ...	...	...	...	1	1	...	...	300 0 0	...	9 8 3	309 8 3	...	...	...	309 8 3	...	309 8 3	1,607	0 3 1
28	Mannárgudi	...	...	...	1	...	...	...	180 0 0	...	30 0 0	210 0 0	...	...	...	210 0 0	...	210 0 0	1,086	0 3 1
29	Mangalore	...	...	...	1	...	...	...	180 0 0	...	12 15 2	192 15 2	...	...	...	192 15 2	...	192 15 2	969	0 3 2
30	Masulipatam	...	...	...	1	...	...	...	216 0 0	...	77 0 0	293 0 0	...	...	...	293 0 0	...	293 0 0	693	0 6 9
31	Máyavaram	...	...	...	1	...	...	...	147 9 7	...	...	147 9 7	...	...	...	147 9 7	...	147 9 7	501	0 4 8
32	Mettupályam	...	...	...	No Vaccinator was employed in this Municipality.															
33	Negapatam	...	...	...	1	1	...	...	351 10 7	...	46 12 3	398 6 10	...	...	...	398 6 10	...	398 6 10	1,380	0 4 7
34	Nellore ...	...	...	...	1	...	...	...	160 0 0	...	17 2 0	177 2 0	...	...	...	177 2 0	...	177 2 0	363	0 7 9
35	Ongole ...	...	...	...	...	1	...	...	120 0 0	...	...	120 0 0	...	...	...	120 0 0	...	120 0 0	95	1 4 3
36	Ootacamund	...	...	...	1	...	...	...	204 0 0	...	20 0 0	224 0 0	...	...	...	224 0 0	...	224 0 0	660	0 5 5
37	Palamcottah	...	...	...	...	1	...	...	119 0 0	...	10 0 0	129 0 0	...	...	...	129 0 0	...	129 0 0	415	0 5 0
38	Pálghat	...	...	...	1	1	...	...	158 11 4	...	...	158 11 4	...	...	...	158 11 4	...	158 11 4	1,062	0 2 5
39	Rajahmundry	...	...	...	...	1	...	...	120 0 0	...	43 14 0	163 14 0	...	...	...	163 14 0	...	163 14 0	638	0 4 1
40	Salem ...	...	...	...	1	2	...	...	456 0 0	...	5 0 0	461 0 0	...	...	...	461 0 0	...	461 0 0	942	0 7 10
41	Srírangam	...	...	...	1	1	1	...	229 0 0	...	..	229 0 0	...	...	...	229 0 0	...	229 0 0	643	0 5 8

A—VACCINE DEPARTMENT.

STATEMENT No. II *showing the Cost of the Department in the Madras Presidency during the Calendar Year* 1879—(Continued).

Number.	Circles and Districts.	Establishment. Inspector of Vaccination and Deputy Sanitary Commissioner.	First-Class Deputy Inspectors.	Second-Class Deputy Inspectors.	Vaccinators. First-Class.	Vaccinators. Second-Class.	Probationers.	Peons.	Expenditure. Pay of Establishment.	Travelling Allowance.	Contingencies.	Total Cost.	Paid from Imperial Funds.	Provincial Funds.	Local Funds.	Municipalities.	Native States, Zemindars or private Funds.	Total.	Number of all successful Vaccinations and Re-vaccinations.	Average Cost of each successful Case.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
									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.
42	Tanjore	...	...	...	1	1	...	...	283 11 10	...	20 0 0	303 11 10	...	...	...	303 11 10	...	303 11 10	2,286	0 2 1
43	Tellicherry	...	...	...	...	1	...	...	180 0 0	...	74 9 6	254 9 6	...	...	...	254 9 6	...	254 9 6	855	0 4 9
44	Tinnevelly	...	...	...	...	1	1	...	181 12 0	5 5 0	20 9 3	207 10 3	...	...	...	207 10 3	...	207 10 3	422	0 7 10
45	Trichinopóly	...	...	...	1	3	2	...	647 8 0	174 0 0	60 0 0	881 8 0	...	...	...	881 8 0	...	881 8 0	2,048	0 6 10
46	Tuticorin	...	...	...	1	...	...	...	180 0 0	...	53 2 0	233 2 0	...	...	...	233 2 0	...	233 2 0	636	0 5 10
47	Vellore	...	...	...	...	1	...	...	210 0 0	...	35 7 2	245 7 2	...	...	...	245 7 2	...	245 7 2	594	0 6 7
48	Vizagapatam	...	...	...	1	...	...	...	180 0 0	...	109 11 9	289 11 9	...	...	...	289 11 9	...	289 11 9	989	0 4 8
49	Vizianagrum	...	...	...	1	...	...	...	180 0 0	...	...	180 0 0	...	...	...	180 0 0	...	180 0 0	661	0 4 4
50	Wálajápet	...	...	...	1	1	...	...	172 4 5	0 10 0	15 12 0	188 10 5	...	...	...	188 10 5	...	188 10 5	268	0 11 3
	Total of Municipalities ...	...	1	...	38	41	6	1	12,752 8 8	179 15 0	2,701 11 5	15,634 3 1	...	...	120 0 0	15,514 3 1	...	15,634 3 1	53,083	0 4 9
	Grand Total ...	1	31	9	211	350	115	26	1,24,813 3 7	16,936 8 7	8,047 4 1	1,49,797 0 3	...	19,101 7 4	1,13,769 15 10	15,514 3 1	1,411 6 0	1,49,797 0 3	396,633	0 6 1

B—DISPENSARY VACCINATION.

STATEMENT No. III *showing Dispensary Vaccination in the Madras Presidency during the Calendar Year* 1879.

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.				Re-vaccination.		Percentage of Successful Cases.	
						Successful.						
					Total.	Under 1 Year.	Above 1 and under 6 Years.	Total of all Ages.	Total.	Successful.	Primary.	Re-vaccination.
1	2	3	4	5	6	7	8	9	10	11	12	13
Bellary District.												
Anantapur	...	...	3	...	3	...	2	2	...	...	66·66	...
Bellary	...	...	68	...	39	1	6	32	29	5	82·51	17·24
Penukonda	...	...	29	...	29	...	1	15	...	...	51·72	...
Tadpatri	...	...	10	...	9	4	2	9	1	1	100·	100·
Total ...	...	...	110	...	80	5	11	58	30	6	72·5	20·
Chingleput District.												
Chingleput	...	...	63	...	63	20	31	51	...	...	80·95	...
Conjeeveram	...	...	25	...	25	3	8	21	...	...	84·	...
Madurántakam ...	...	...	21	...	21	...	12	21	...	...	100·	...
Ponnéri	...	...	13	...	13	1	1	6	...	...	46·15	...
Saidápet	...	...	37	...	37	12	23	35	...	...	94·59	...
Tiruvallúr	...	...	26	...	15	...	...	13	11	...	86·66	...
Total ...	...	...	185	...	174	36	75	147	11	...	84·48	...
Coimbatore District.												
Bhaváni	...	...	31	...	31	11	17	30	...	...	96·77	...
Kollegál	...	...	46	...	41	21	20	41	5	3	100·	60·
Dhárápuram	...	...	20	...	20	1	8	18	...	...	90·	...
Erode	...	...	8	...	8	1	2	8	...	...	100·	...
Karúr	...	...	13	...	11	1	10	11	2	2	100·	100·
Mettupálaiyam ...	...	...	52	...	51	14	25	39	1	1	96·47	100·
Polláchi	...	...	3	...	3	1	2	3	...	...	100·	..
Udamalpet	...	...	4	..	4	2	2	4	...	...	100·	...
Total ...	...	...	177	...	169	52	86	154	8	6	91·12	75·
Cuddapah District.												
Kadiri	...	...	30	...	30	4	10	21	..	...	70·	...
Madanapalle	...	...	12	...	11	1	4	9	1	...	81·81	...
Pulivendla	...	...	34	...	34	5	29	34	...	...	100·	...
Total ...	...	...	76	...	75	10	43	64	1	...	85·33	...
Ganjam District.												
Berhampore	...	...	3	...	3	...	...	1	..	...	33·33	...
Chicacole	...	...	57	...	57	...	40	40	...	...	70·17	...
Ganjam	...	...	37	...	24	2	15	19	13	6	79·16	45·15
Gopálpur	...	...	108	...	106	10	61	83	2	1	78·30	50·
Tekkali, Raghunáthapuram	...	...	5	...	5	...	1	4	...	...	80·	...
Total ...	...	...	210	...	195	12	117	147	15	7	75·38	46·66
Godávari District.												
Ellore	...	...	154	...	143	...	73	126	11	9	88·11	81·81
Pithápuram	...	...	3	...	3	...	1	2	...	...	66·66	...
Pothavaram	...	...	10	...	10	1	3	9	...	...	90·	...
Rajahmundry ...	...	...	16	...	16	2	10	14	...	...	87·5	...
Rámachandrapuram ...	...	...	10	...	10	...	5	10	...	...	100·	...
Tuni	...	...	4	...	4	1	3	4	...	...	100·	...
Total ...	...	...	197	...	186	4	95	165	11	9	88·71	81·81

B—DISPENSARY VACCINATION.

STATEMENT No. III *showing Dispensary Vaccination in the Madras Presidency during the Calendar Year* 1879—(Continued).

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.				Re-vaccination.		Percentage of Successful Cases.	
						Successful.						
					Total.	Under 1 Year.	Above 1 and under 6 Years.	Total of all Ages.	Total.	Successful.	Primary.	Re-vaccination.
1	2	3	4	5	6	7	8	9	10	11	12	13
Kistna District.												
Chirala	...	...	55	...	50	8	18	27	5	5	54·	100·
Dáchepalle	...	...	127	...	123	50	44	94	4	4	76·42	100·
Vinukonda	...	...	152	...	152	5	105	110	...	...	72·36	...
Total ...	...	...	334	...	325	63	167	231	9	9	71·07	100·
Kurnool District.												
Kurnool	...	...	190	...	163	3	41	119	27	...	73·	...
Nandyál	...	...	2	...	2	...	2	2	...	...	100·	...
Total ...	...	...	192	...	165	3	43	121	27	...	73·3	...
Madras District.												
Black Town	...	...	7	...	7	...	...	7	...	...	100·	...
Vepery	...	...	24	...	20	4	14	18	4	4	90·	100·
Total ...	...	...	31	...	27	4	14	25	4	4	92·59	100·
Madura District.												
Madura	...	...	34	...	31	9	17	26	3	3	83·86	100·
Periyankulam	...	...	37	...	37	...	...	32	...	...	86·49	...
Palni	...	...	13	...	11	...	4	11	2	2	100·	100·
Rajasinganmungalum ...	...	...	11	...	11	6	2	11	...	...	100·	...
Sivaganga	...	...	7	...	7	2	4	7	...	...	100·	...
Tirushuli	...	...	8	...	8	3	5	8	...	...	100·	...
Uttamapallium ...	...	...	217	...	214	37	136	202	3	3	94·39	100·
Total ...	...	...	327	...	319	57	168	297	8	8	93·10	100·
Malabar District.												
Cochin	...	...	77	...	75	14	32	58	2	1	77·33	50·
Manjeri	...	...	30	...	30	...	3	22	...	...	73·33	...
Pálghat	...	...	5	...	4	1	3	4	1	...	100·	...
Ponáni	...	...	41	...	41	1	26	27	...	...	65·85	...
Tellicherry	...	...	10	...	10	...	1	9	...	...	90·	...
Total ...	...	...	163	...	160	16	65	120	3	1	75·	33·33
Nellore District.												
Ongole	...	...	49	...	20	4	3	13	29	1	65·	3·44
Total ...	...	...	49	...	20	4	3	13	29	1	65·	3·44
Nilgiri District.												
Coonoor	...	...	15	...	13	1	1	10	2	1	96·92	50·
Ootacamund	...	..	170	...	156	7	77	156	14	5	100·	35·71
Total ...	...	...	185	...	169	8	78	166	16	6	98·22	37·5
North Arcot District.												
Palmanér	...	...	47	...	47	1	18	32	...	...	68·09	...
Vellore	...	...	68	...	68	7	44	55	...	...	80·88	...
Total ...	...	...	115	...	115	8	62	87	...	...	75·65	...

B—DISPENSARY VACCINATION.

STATEMENT No. III *showing Dispensary Vaccination in the Madras Presidency during the Calendar Year* 1879—(Continued).

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.				Re-vaccination.		Percentage of Successful Cases.	
						Successful.						
					Total.	Under 1 Year.	Above 1 and under 6 Years.	Total of all Ages.	Total.	Successful.	Primary.	Re-vaccination.
1	2	3	4	5	6	7	8	9	10	11	12	13
Salem District.												
Atúr	...	...	14	...	14	...	1	9	...	...	64·29	...
Dharmapuri	...	...	16	...	10	...	7	10	6	6	100·	100·
Harur	...	...	35	...	35	...	26	26	...	...	74·28	...
Krishnagiri ...	...	...	30	...	30	6	4	26	...	...	86·66	...
Sankaridrug ...	...	...	24	...	8	...	2	8	16	10	100·	62·5
Tirupatúr	...	...	54	...	54	4	9	34	...	...	62·96	...
Yercaud	...	...	21	...	21	...	16	16	...	...	76·19	...
Total ...	...	...	194	...	172	10	65	129	22	16	75·	72·72
South Arcot District.												
Cuddalore, New Town.	...	1	*195	151	195	20	86	161	...	...	82·56	...
Do. Old Town ...	...	1	†258	223	254	31	108	174	4	...	68·50	...
Kallakurchi	...	...	4	...	4	...	4	4	...	...	100·	...
Tindivanam	...	...	13	...	1	...	...	1	12	...	100·	...
Tirukoilúr	...	...	10	...	10	...	5	10	...	...	100·	...
Trinomalai	...	...	36	...	36	...	7	24	...	...	66·66	...
Villapuram	...	...	33	...	33	...	17	17	...	...	51·51	...
Vriddháchalam ...	...	...	51	...	46	2	5	40	5	2	86·96	40·
Total ...	...	2	600	...	579	...	232	431	21	2	74·43	9·52
South Canara District.												
Bantvál	...	...	17	..	17	2	13	15	...	...	88·24	...
Karkal	...	...	2	...	1	...	...	1	1	1	100·	100·
Kundapoor	...	...	34	...	32	..	4	17	2	...	53·12	...
Mangalore	...	...	22	...	17	...	6	17	5	1	100·	20·
Udipi	...	...	24	...	23	8	12	20	1	1	86·95	100·
Uppinangadi	...	...	19	...	19	2	6	15	...	...	78·95	...
Total ...	...	...	118	...	109	12	41	85	9	3	77·98	33·33
Tanjore District.												
Arantangi	...	...	32	...	32	4	18	32	...	...	100·	...
Kumbakónam	...	...	233	...	233	30	113	174	...	...	74·67	...
Kumbakónam, Branch.	...	...	143	...	136	34	55	103	7	...	75·73	...
Manamalchavady and Karanthatangoody ...	...	...	54	...	54	12	25	44	...	...	81·48	...
Máyavaram	...	...	16	...	12	1	9	10	4	1	83·33	25·
Nagore	...	...	15	...	15	1	4	6	..	..	40·	...
Nannilam	...	...	128	...	127	9	58	108	1	1	85·04	100.
Negapatam	...	...	8	...	8	...	6	8	...	...	100·	...
Patukóta	...	...	59	...	59	2	35	55	...	...	93·22	...
Shiyáli	...	...	250	...	250	43	87	188	...	...	75·2	...
Tanjore	...	...	154	...	123	5	21	117	31	...	95·12	...
Tranquebar	...	...	80	...	80	1	15	58	...	...	72·5	...
Tiruvádi	...	...	20	...	19	3	11	15	1	1	78·94	100·
Tiruválúr	...	...	55	...	51	2	5	34	4	4	66·66	100·
Vedarnium	...	...	26	...	24	4	12	22	2	1	91·66	50·
Vallam	...	...	160	...	155	1	123	148	5	...	95·48	...
Total ...	...	...	1,433	...	1,378	152	597	1,122	55	8	81·42	14·54
Tinnevelly District.												
Ediyangudy	...	...	5	...	5	...	4	5	...	...	100·	...
Nánguněri	...	...	69	...	69	11	32	51	...	...	73·91	...
Palamcottah	...	...	21	...	21	1	8	19	...	...	90·47	...
Tinnevelly	...	...	37	...	33	8	14	26	4	..	73·8	...
Tuticorin	...	...	95	...	93	13	37	76	2	...	81·72	...
Total ...	...	...	227	...	221	33	95	177	6	...	80·09	33·33

* The Pupil Vaccinator attached to the New Town Dispensary vaccinated 151 cases.
† The Pupil Vaccinator attached to the Old Town Dispensary vaccinated 223 cases.

B—DISPENSARY VACCINATION.

STATEMENT No. III *showing Dispensary Vaccination in the Madras Presidency during the Calendar Year* 1879—(Continued).

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.				Re-vaccination.		Percentage of Successful Cases.	
						Successful.						
					Total.	Under 1 Year.	Above 1 and under 6 Years.	Total of all Ages.	Total.	Successful.	Primary.	Re-vaccination.
1	2	3	4	5	6	7	8	9	10	11	12	13
Trichinopoly District.												
Ariyalúr	...	...	2	...	2	...	...	2	...	...	100·	...
Musiri	...	...	51	...	51	13	36	49	...	...	96·08	...
Total ...	...	...	53	...	53	13	36	51	...	...	92·23	...
Vizagapatam District.												
Bobbili	...	...	5	...	3	1	1	3	2	...	100·	...
Cheepurapully ...	...	...	1	...	1	...	1	1	...	...	100·	...
Palcondah	...	...	36	...	27	2	4	11	9	1	40·74	11·11
Sálúr	...	...	173	...	173	7	66	173	...	...	100·	...
Yellamanchili ...	...	...	2	...	2	...	2	2	...	...	100·	...
Total ...	...	...	217	...	206	10	74	190	11	1	92·23	9·09
Grand Total ...	...	2	5,193	...	4,897	565	2,167	3,980	296	87	81·27	29·39

COMPARATIVE STATEMENT No. IV *showing the Number of Persons Primarily vaccinated and Number of Persons who were Successfully vaccinated in the Madras Presidency in each of the undermentioned Years.*

Establishment.	Persons Primarily Vaccinated.																	
	Official Years ended 31st March.												Calendar Years ended 31st December.					
	1873-74.			1874-75.			1875-76.			1876-77.			1877-78.			1878.		1879.	
	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.	Total Number.	Number Successfully Vaccinated.
Government Vaccinators ...	2,639*	2,347		5,355	4,891		7,105	6,473		7,228	6,700		5,046	4,640		5,300	4,853	5,958	5,530
Local Fund do. ...	284,459	261,509		354,574	310,761		320,188	266,260		403,269	344,063		671,952	560,336		402,301	363,141	367,639	333,794
Cantonment do. ...	4,270	3,823		3,489	3,231		5,323	4,810		4,997	4,514		6,726	6,221		...	...	...	...
Native States	4,424	3,797		5,391	4,638		4,245	3,637		3,847	3,255		6,109	5,479		5,689	4,943	3,605	3,104
Municipalities ...	42,646	37,998		33,606	28,874		28,832	25,077		40,441	35,392		57,223	51,141		80,607	56,543	61,556	51,788
Private Vaccinators ...	5,192	5,008		6,062	5,838		5,934	5,508		3,048	2,795		471	471		160	154	171	145
Railway Apothecaries ...	4	4		10	9		...	...		57	49		10	7		...	...	...	...
Dispensaries	675	635		2,029	1,606		408	297		87	77		584	464		397	251	4,897	3,980
Medical Subordinates ...	20,890	14,477		17,251	12,200		11,032	7,067		15,753	9,553		23,754	15,984		16,482	9,776	13,273	7,806
Army... European ...	...	...		...	...		...	...		...	...		30	20		287	169	849	639
Army... Native ...	...	...		...	...		...	...		...	...		4,800	3,434		4,617	2,859	4,818	3,748
Total ...	365,399	329,598		427,767	372,048		383,067	319,129		478,727	406,398		776,705	648,197		515,840	442,689	462,766	410,534

N.B.—Revaccinations are wholly excluded from this statement.
* Work done by vaccinators employed in the Hill Tracts of Ganjam, Jeypore, Bhadráchalam, and Gudem.
† The figures are not available.

MILITARY CANTONMENTS.

BANGALORE.

The total number of cases vaccinated in this cantonment was 1,558, consisting of 820 males and 738 females. The percentage of success was 93·45. Two Vaccinators are employed, one first class and one second class (female). They work under the orders of the Garrison Surgeon, Bangalore. First-class Vaccinator Aroomoogum Pillay has done 815 cases, showing an increase of 36 cases over that for 1878. Second-class Vaccinator Gnanamah vaccinated 743 cases, showing an increase of 131 cases over that for 1878. On comparing the work done in the Bangalore Cantonment for 1878 with that for 1879, there is found an increase of 167 cases. The number of infants successfully vaccinated by the two Vaccinators was 801, showing an increase of 84 cases for 1879. The caste and sex of those vaccinated are given below :—

	Males.	Females.
Europeans	53	39
Hindus	507	456
Mahomedans	166	155
Native Christians	94	86
Total ...	820	738

SECUNDERABAD.

In this cantonment two Vaccinators, one first class and one second class, are employed. They work under the orders of the Medical Officer in charge of Civil Dispensary. The total number of cases vaccinated during the year 1879 was 2,038, comprising 779 males and 1,226 females. The sex of 33 revaccinations was unknown. The percentage of success was 87·53. On comparing the total with that for 1878 there is found a decrease of 501 cases. 811 infants under one year of age were successfully vaccinated, showing an increase of 364 cases for 1879. Of the total given above 345 were done in four months by First-class Vaccinator Gopaul Pillay, who mutually exchanged with First-class Vaccinator Shaick Ahmed of the Vellore Circle, and 692 by the latter in eight months. 1,001 cases were done by Female Vaccinator Allaraka Bee. The caste and sex of those operated on are as follow :—

	Males.	Females.
Europeans	13	42
Hindus	534	674
Mahomedans	125	349
Native Christians	22	52
Other castes	85	109
Total ...	779	1,226

KAMPTEE.

Vaccination is carried on in this cantonment by two Vaccinators. One, a Second-class Vaccinator, paid by the Madras Government, and the other, a vaccinator paid by the Municipality at Rs. 8 per mensem. These vaccinators confine their work to the civil population. The total number vaccinated was 1,481, comprising

823 males and 658 females. The percentage of success was 95·34. Thirty-seven revaccinations were done, of which 31 were successful; 454 cases under one year of age were successfully vaccinated. On comparing the work of 1879 with that for 1878 there is found a decrease of 321 cases for the past year. The caste and sex of those vaccinated are as given below :—

	Males.	Females.
Europeans	2	1
Hindus	285	224
Mahomedans	121	99
Native Christians	20	14
Other castes	413	312
Total ...	841	650

Statement showing particulars of Vaccination in the Military Cantonments of the Madras Presidency.

Number.	Military Cantonments.	Population.	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 Vaccination.					Revaccination.		Percentage of Successful Cases.		Persons successfully vaccinated per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous Five Years.		Average Number of Deaths from Small-pox during previous Five Years.	
									Successful.													
					Males.	Females.	Total.		Under 1 Year.	Above 1 and under 6 Years.	Total of all Ages.	Total.	Total.	Successful.	Revaccination.	Primary.	Revaccination.		Number.	Ratio per 1,000	Number.	Ratio per 1,000
1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16		17	18	19	20	
1	Bangalore	81,810	...	2	820	738	1,558	779	801	514	1,456	...	...	93·45	...	18		1,266	15	133	1·62	
2	Kamptee	47,244	...	2	823	658	1,481	740	819	454	1,381	37	31	95·63	83·78	29		1,137	24	9·8	·200	
3	Secunderabad	52,458	...	2	779	1,226	2,038	1,019	811	348	1,764	33	20	87·98	60·60	34		2,429	46	8·60	·16	
	Total ...	181,512	...	6	2,422	2,622	5,077	846	2,511	1,316	4,601	70	51	91·89	72·82	25		4,376	24	...	...	

Statement showing Cost of the Department in the Military Cantonments of the Madras Presidency.

Number.	Military Cantonments.	Establishment.										Expenditure.										
		Inspector of Vaccination and Deputy Sanitary Commissioner.	First-class Deputy Inspectors.	Second-class Deputy Inspectors.	Vaccinators.							Pay of Establishment.	Travelling Allowance.	Contingencies.	Total Cost.	Paid from					Number of all Successful Vaccinations and Revaccinations.	Average Cost of each Successful Case.
					First Class.	Second Class.	Probationers.	Peons.								Imperial Funds.	Provincial Funds.	Local Funds.	Municipalities.	Native States, Zemindars, or Private Funds.		
1	2	3	4	5	6	7	8	9				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.
1	Bangalore	...	...	...	1	1	...	...				336 0 0	...	...	336 0 0	...	336 0 0	...	...	...	1,456	0 3 8
2	Kamptee	...	...	...	1	1	1	...				209 1 1	...	...	209 1 1	...	113 1 1	...	96 0 0	...	1,412	0 2 4
3	Secunderabad ...	...	...	...	1	1	...	...				336 0 0	...	...	336 0 0	...	336 0 0	...	...	...	1,784	0 3 0
	Total ...	...	...	...	2	3	1	...				881 1 1	...	...	881 1 1	...	785 1 1	...	96 0 0	...	4,652	0 3 0

N.B.—The sex of 33 revaccination cases done in Secunderabad is unknown.

(Signed) JAS. ANDERSON LAING, Surgeon,
Inspector of Vaccination and Deputy Sanitary Commissioner, Madras Presidency.

APPENDIX II.

VITAL STATISTICS OF THE GENERAL POPULATION.

I.

Births registered in the Districts of the Madras Presidency during the Year 1879.

No.	2			3	4			5			6			7	8	9
	Population according to the Census of 1871.			Districts.	Population for which Returns were received.			Number of Births registered.			Ratio of Births per 1,000 of Population.			Number of Males born to 100 every Females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.
	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.			
1	695,090	693,529	1,388,619	Ganjam	544,118	500,114	1,044,232	9,581	8,664	18,245	17·6	17·3	17·4	110·6	1·6	...
2	940,515	902,988	1,843,503	Vizagapatam	699,479	667,344	1,366,823	8,013	7,689	15,702	11·4	11·5	11·4	104·2	...	6·1
3	803,149	788,954	1,592,103	Godavari	803,149	788,954	1,592,103	12,839	12,237	25,076	15·9	15·5	15·7	104·9	...	11·9
4	737,319	714,747	1,452,066	Kistna	737,319	714,747	1,452,066	11,642	11,132	22,774	15·7	15·5	15·6	104·5	...	5·4
5	707,222	669,261	1,376,483	Nellore	707,222	669,261	1,376,483	5,666	5,092	10,758	8·0	7·6	6·9	111·2	...	3·4
6	186,569	195,330	381,926	Madras	186,596	195,330	381,926	8,527	7,565	16,092	45·7	38·7	42·1	112·7	8·0	...
7	473,828	460,695	934,523	Chingleput	473,828	460,695	934,523	14,387	13,205	27,592	30·3	28·6	29·5	108·9	11·2	...
8	885,665	869,659	1,755,324	South Arcot	885,665	869,659	1,755,324	16,192	15,164	31,356	18·2	17·4	17·8	106·7	...	0·6
9	587,390	611,765	1,199,155	Trichinopoly	587,390	611,765	1,199,155	13,282	12,559	25,841	22·6	20·5	21·5	105·7	4·3	...
10	953,492	1,019,328	1,972,820	Tanjore	953,492	1,019,328	1,972,820	30,350	28,625	58,975	31·8	28·0	29·8	106·0	8·2	...
11	1,111,880	1,154,394	2,266,274	Madura	656,966	672,241	1,329,207	9,819	8,210	18,029	14·9	12·2	13·5	119·6	...	3·8
12	836,332	857,297	1,693,629	Tinnevelly	836,332	857,297	1,693,629	17,163	16,247	33,410	20·5	18·9	19·7	105·6	1·4	...
13	467,517	446,716	914,233	Kurnool	467,517	446,716	914,233	3,355	3,157	6,512	7·1	7·0	7·1	106·2	...	19·6
14	693,280	657,687	1,350,967	Cuddapah	693,280	657,687	1,350,967	7,495	7,224	14,719	10·8	10·9	10·8	103·7	...	11·0
15	858,649	807,166	1,665,815	Bellary	858,649	807,166	1,665,815	7,594	6,898	14,492	8·8	8·5	8·6	110·1	...	15·9
16	1,020,119	994,135	2,014,254	North Arcot	1,020,119	994,135	2,014,254	19,669	18,883	38,552	19·2	18·9	19·1	104·1	2·2	...
17	975,140	991,222	1,966,362	Salem	975,140	991,222	1,966,362	12,890	12,497	25,387	13·2	12·6	12·9	103·1	...	3·3
18	874,642	880,037	1,762,679	Coimbatore	874,642	888,037	1,762,679	12,094	11,458	23,552	13·8	13·0	13·3	105·5	1·2	...
19	38,366	34,030	72,396	Nilgiris	38,366	34,030	72,396	537	489	1,026	13·9	14·3	14·1	109·8	...	1·3
20	459,550	458,492	918,042	South Canara	459,550	458,492	918,042	7,987	7,871	15,858	17·3	17·1	17·2	104·7	...	6·9
21	1,117,573	1,110,655	2,228,228	Malabar	1,117,573	1,110,655	2,228,228	17,401	16,413	33,814	15·5	14·7	15·1	106·0	...	0·2
	15,423,314	15,326,087	30,749,401	Total, Madras Presidency.	14,576,392	14,414,875	28,991,267	246,483	231,279	477,762	16·9	16·0	16·4	106·5	...	2·5

II.

Deaths registered in the Districts of the Madras Presidency during the Year 1879.

1	2	3	4	5			6	7			8		
No.	Districts.	Area in Square Miles.	Average Population per Square Mile.	Number of Deaths registered.			Number of Males died to every 100 Deaths of Females.	Ratio of Deaths per 1,000 of Population.			Mean Ratio of Deaths per 1,000 during previous Five Years ending 1876.		
				Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.
1	Ganjam	8,313	182·9	8,849	7,650	16,499	115·7	16·2	15·2	15·8	15·05	13·6	14·3
2	Vizagapatam	18,344	117·7	12,797	11,193	23,990	114·3	18·2	16·7	17·5	15·4	13·7	14·5
3	Godávari	6,224	255·9	23,197	20,796	43,993	111·5	28·8	26·3	27·6	19·9	18·4	19·2
4	Kistna	8,036	180·7	16,021	14,587	30,608	109·8	21·7	20·4	21·0	17·7	15·9	16·9
5	Nellore	8,462	162·7	7,387	6,802	14,189	108·6	10·4	10·1	10·3	14·5	13·2	13·9
6	Madras	27	14,724·1	6,526	6,533	13,059	99·8	34·9	33·4	34·1	35·1	33·4	34·3
7	Chingleput	2,753	340·7	8,756	8,438	17,194	103·7	18·4	18·3	18·3	19·4	19·5	19·5
8	South Arcot	4,873	360·3	16,618	15,708	32,326	105·7	18·7	18·0	18·4	17·1	16·2	16·7
9	Trichinopoly	3,515	341·5	10,321	10,389	20,710	99·3	17·5	16·9	17·2	20·2	19·3	19·7
10	Tanjore	3,654	540·1	21,429	21,355	42,784	100·3	22·4	20·9	21·6	24·7	22·9	23·8
11	Madura	9,502	238·5	11,966	11,102	23,068	107·7	18·2	16·5	17·3	12·9	11·4	12·2
12	Tinnevelly	5,176	327·3	15,777	15,272	31,049	103·3	18·8	17·8	18·3	19·9	18·01	18·9
13	Kurnool	7,358	130·4	12,448	11,998	24,446	103·7	26·6	26·8	26·7	19·1	17·8	18·4
14	Cuddapah	8,367	161·5	15,314	14,242	29,556	107·5	22·0	21·6	21·8	18·1	17·03	17·6
15	Bellary	11,007	151·5	21,220	19,690	40,910	107·7	24·7	24·3	24·5	18·4	18·8	18·6
16	North Arcot	7,139	282·3	16,756	17,339	34,095	96·6	16·4	17·4	16·9	21·2	20·9	21·1
17	Salem	7,483	262·9	15,673	16,295	31,968	96·1	16·0	16·4	16·2	22·8	20·6	21·7
18	Coimbatore	7,432	237·3	11,421	10,039	21,460	113·7	13·0	11·4	12·1	16·4	14·1	15·3
19	Nilgiris	749	66·0	629	493	1,122	125·5	16·3	14·4	15·4	19·5	18·4	19·0
20	South Canara	3,902	235·4	11,584	10,567	22,151	109·6	25·2	23·4	24·1	18·7	16·8	17·8
21	Malabar	6,002	376·7	18,920	15,293	34,213	123·6	16·9	13·7	15·3	18·7	15·3	17·1
	Total, Madras Presidency ...	138,318	226·2	283,609	265,781	549,390	106·7	19·4	18·4	18·9	18·8	17·4	18·1

I.

Births registered in the Districts of the Madras Presidency during the Year 1879.

No.	2			3	4			5			6			7	8	9
	Population according to the Census of 1871.			Districts.	Population for which Returns were received.			Number of Births registered.			Ratio of Births per 1,000 of Population.			Number of Males born to every 100 Females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.
	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.			
1	695,090	693,529	1,388,619	Ganjam	544,118	500,114	1,044,232	9,581	8,664	18,245	17·6	17·3	17·4	110·6	1·6	...
2	940,515	902,988	1,843,503	Vizagapatam	699,479	667,344	1,366,823	8,013	7,689	15,702	11·4	11·5	11·4	104·2	...	6·1
3	803,149	788,954	1,592,103	Godavari	803,149	788,954	1,592,103	12,839	12,237	25,076	15·9	15·5	15·7	104·9	...	11·9
4	737,319	714,747	1,452,066	Kistna	737,319	714,747	1,452,066	11,642	11,132	22,774	15·7	15·5	15·6	104·5	...	5·4
5	707,222	669,261	1,376,483	Nellore	707,222	669,261	1,376,483	5,666	5,092	10,758	8·0	7·6	6·9	111·2	...	3·4
6	186,569	195,330	381,926	Madras	186,596	195,330	381,926	8,527	7,565	16,092	45·7	38·7	42·1	112·7	8·0	...
7	473,828	460,695	934,523	Chingleput	473,828	460,695	934,523	14,387	13,205	27,592	30·3	28·6	29·5	108·9	11·2	...
8	885,665	869,659	1,755,324	South Arcot	885,665	869,659	1,755,324	16,192	15,164	31,356	18·2	17·4	17·8	106·7	...	0·6
9	587,390	611,765	1,199,155	Trichinopoly	587,390	611,765	1,199,155	13,282	12,559	25,841	22·6	20·5	21·5	105·7	4·3	...
10	953,492	1,019,328	1,972,820	Tanjore	953,492	1,019,328	1,972,820	30,350	28,625	58,975	31·8	28·0	29·8	106·0	8·2	...
11	1,111,880	1,154,394	2,266,274	Madura	656,966	672,241	1,329,207	9,819	8,210	18,029	14·9	12·2	13·5	119·6	...	3·8
12	836,332	857,297	1,693,629	Tinnevelly	836,332	857,297	1,693,629	17,163	16,247	33,410	20·5	18·9	19·7	105·6	1·4	...
13	467,517	446,716	914,233	Kurnool	467,517	446,716	914,233	3,355	3,157	6,512	7·1	7·0	7·1	106·2	...	19·6
14	693,280	657,687	1,350,967	Cuddapah	693,280	657,687	1,350,967	7,495	7,224	14,719	10·8	10·9	10·8	103·7	...	11·0
15	858,649	807,166	1,665,815	Bellary	858,649	807,166	1,665,815	7,594	6,898	14,492	8·8	8·5	8·6	110·1	...	15·9
16	1,020,119	994,135	2,014,254	North Arcot	1,020,119	994,135	2,014,254	19,669	18,883	38,552	19·2	18·9	19·1	104·1	2·2	...
17	975,140	991,222	1,966,362	Salem	975,140	991,222	1,966,362	12,890	12,497	25,387	13·2	12·6	12·9	103·1	...	3·3
18	874,642	880,037	1,762,679	Coimbatore	874,642	888,037	1,762,679	12,094	11,458	23,552	13·8	13·0	13·3	105·5	1·2	...
19	38,366	34,030	72,396	Nilgiris	38,366	34,030	72,396	537	489	1,026	13·9	14·3	14·1	109·8	...	1·3
20	459,550	458,492	918,042	South Canara	459,550	458,492	918,042	7,987	7,871	15,858	17·3	17·1	17·2	104·7	...	6·9
21	1,117,573	1,110,655	2,228,228	Malabar	1,117,573	1,110,655	2,228,228	17,401	16,413	33,814	15·5	14·7	15·1	106·0	...	0·2
	15,423,314	15,326,087	30,749,401	Total, Madras Presidency.	14,576,392	14,414,875	28,991,267	246,483	231,279	477,762	16·9	16·0	16·4	106·5	...	2·5

II.

Deaths registered in the Districts of the Madras Presidency during the Year 1879.

1	2	3	4	5			6	7			8		
No.	Districts.	Area in Square Miles.	Average Population per Square Mile.	Number of Deaths registered.			Number of Males died to every 100 Deaths of Females.	Ratio of Deaths per 1,000 of Population.			Mean Ratio of Deaths per 1,000 during previous Five Years ending 1876.		
				Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.
1	Ganjam	8,313	182·9	8,849	7,650	16,499	115·7	16·2	15·2	15·8	15·05	13·6	14·3
2	Vizagapatam	18,344	117·7	12,797	11,193	23,990	114·3	18·2	16·7	17·5	15·4	13·7	14·5
3	Godávari	6,224	255·9	23,197	20,796	43,993	111·5	28·8	26·3	27·6	19·9	18·4	19·2
4	Kistna	8,036	180·7	16,021	14,587	30,608	109·8	21·7	20·4	21·0	17·7	15·9	16·9
5	Nellore	8,462	162·7	7,387	6,802	14,189	108·6	10·4	10·1	10·3	14·5	13·2	13·9
6	Madras	27	14,724·1	6,526	6,533	13,059	99·8	34·9	33·4	34·1	35·1	33·4	34·3
7	Chingleput	2,753	340·7	8,756	8,438	17,194	103·7	18·4	18·3	18·3	19·4	19·5	19·5
8	South Arcot	4,873	360·3	16,618	15,708	32,326	105·7	18·7	18·0	18·4	17·1	16·2	16·7
9	Trichinopoly	3,515	341·5	10,321	10,389	20,710	99·3	17·5	16·9	17·2	20·2	19·3	19·7
10	Tanjore	3,654	540·1	21,429	21,355	42,784	100·3	22·4	20·9	21·6	24·7	22·9	23·8
11	Madura	9,502	238·5	11,966	11,102	23,068	107·7	18·2	16·5	17·3	12·9	11·4	12·2
12	Tinnevelly	5,176	327·3	15,777	15,272	31,049	103·3	18·8	17·8	18·3	19·9	18·01	18·9
13	Kurnool	7,358	130·4	12,448	11,998	24,446	103·7	26·6	26·8	26·7	19·1	17·8	18·4
14	Cuddapah	8,367	161·5	15,314	14,242	29,556	107·5	22·0	21·6	21·8	18·1	17·03	17·6
15	Bellary	11,007	151·5	21,220	19,690	40,910	107·7	24·7	24·3	24·5	18·4	18·8	18·6
16	North Arcot	7,139	282·3	16,756	17,339	34,095	96·6	16·4	17·4	16·9	21·2	20·9	21·1
17	Salem	7,483	262·9	15,673	16,295	31,968	96·1	16·0	16·4	16·2	22·8	20·6	21·7
18	Coimbatore	7,432	237·3	11,421	10,039	21,460	113·7	13·0	11·4	12·1	16·4	14·1	15·3
19	Nilgiris	749	66·0	629	493	1,122	125·5	16·3	14·4	15·4	19·5	18·4	19·0
20	South Canara	3,902	235·4	11,584	10,567	22,151	109·6	25·2	23·4	24·1	18·7	16·8	17·8
21	Malabar	6,002	376·7	18,920	15,293	34,213	123·6	16·9	13·7	15·3	18·7	15·3	17·1
	Total, Madras Presidency ...	138,318	226·2	283,609	265,781	549,390	106·7	19·4	18·4	18·9	18·8	17·4	18·1

III.

Deaths registered in the Districts of the Madras Presidency during each Month of the Year 1879.

1	2	3												4
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	Total Deaths registered during the Year.
1	Ganjam	1,688	1,267	1,282	1,215	995	1,118	1,214	1,401	1,483	1,484	1,517	1,835	16,499
2	Vizagapatam	2,712	2,135	1,752	1,438	1,127	1,297	2,021	2,643	2,592	2,288	2,001	1,984	23,990
3	Godávari	5,974	3,521	2,891	2,401	2,327	3,610	7,092	4,336	2,475	2,927	3,323	3,116	43,993
4	Kistna	5,267	2,777	1,812	1,785	1,594	1,716	2,128	2,071	2,080	2,948	3,290	3,140	30,608
5	Nellore	1,782	996	977	680	677	2,440	804	857	1,086	1,261	1,420	1,209	14,189
6	Madras	1,229	1,036	972	1,010	965	865	1,012	1,146	1,160	1,157	1,188	1,319	13,059
7	Chingleput	1,595	1,139	1,227	995	999	1,042	1,402	1,521	1,619	1,764	1,813	2,078	17,194
8	South Arcot	4,201	3,092	2,536	2,430	1,706	1,546	2,045	2,555	3,222	3,205	2,852	2,936	32,326
9	Trichinopoly	2,214	1,808	1,599	1,524	1,461	1,337	1,661	1,785	1,950	1,763	1,740	1,868	20,710
10	Tanjore	3,817	3,342	3,198	2,949	3,020	3,072	3,515	3,780	4,218	4,065	3,900	3,908	42,784
11	Madura	4,045	3,038	2,565	1,668	1,576	1,484	1,424	1,409	1,427	1,381	1,442	1,609	23,068
12	Tinnevelly	3,315	2,564	2,289	2,249	2,328	2,600	2,549	2,698	2,552	2,488	2,493	2,924	31,049
13	Kurnool	2,346	1,932	1,892	1,821	1,721	1,786	2,331	2,581	2,051	1,825	1,787	2,373	24,446
14	Cuddapah	3,538	2,955	2,614	2,509	2,170	1,651	1,775	2,102	2,275	2,341	2,519	3,107	29,556
15	Bellary	4,461	3,513	3,708	3,749	3,578	3,046	3,496	3,599	3,380	2,784	2,563	3,033	40,910
16	North Arcot	4,928	3,477	2,856	2,617	1,976	1,699	2,219	2,593	2,806	2,751	2,825	3,348	34,095
17	Salem	6,090	3,890	2,795	2,299	2,072	1,891	2,103	2,172	2,210	2,101	2,098	2,247	31,968
18	Coimbatore	2,651	2,719	2,483	1,700	1,555	1,276	1,507	1,650	1,583	1,357	1,409	1,570	21,460
18	Nilgiris	86	66	78	79	86	118	114	120	107	105	90	73	1,122
20	South Canara	2,684	2,268	1,943	1,968	2,028	2,097	2,075	1,646	1,490	1,275	1,256	1,421	22,151
21	Malabar	3,359	3,441	3,166	3,050	2,643	2,914	3,226	2,990	2,814	2,279	2,105	2,226	34,213
	Total, Madras Presidency ...	67,982	50,976	44,635	40,136	36,604	38,605	45,713	45,655	44,580	43,549	43,631	47,324	549,390
	Ratio of Deaths per 1000 in each month...	2·3	1·7	1·5	1·3	1·2	1·3	1·5	1·5	1·5	1·5	1·5	1·6	18·9

IV.

Deaths registered according to Age in the Districts of the Madras Presidency during the Year 1879.

1	2	3		4		5		6		7		8		9		10		11	
No.	Districts.	Under 1 year.		1 year and under 6.		6 years and under 12.		12 years and under 20.		20 years and under 30.		30 years and under 40.		40 years and under 50.		50 years and under 60.		60 years and upwards.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	Ganjam	1,117	994	1,144	951	666	519	564	522	947	811	938	729	972	619	1,004	825	1,497	1,680
2	Vizagapatam	858	779	1,388	1,232	1,117	813	893	787	1,499	1,286	1,620	1,253	1,707	1,259	1,736	1,616	1,979	2,168
3	Godávari	1,983	1,833	3,348	3,093	2,198	1,711	1,690	1,720	2,816	2,773	2,572	1,884	2,266	1,545	2,254	1,837	4,070	4,400
4	Kistna	1,642	1,436	2,033	2,000	1,314	1,179	1,019	971	1,609	1,705	1,487	1,152	1,307	923	1,730	1,357	3,880	3,864
5	Nellore	488	442	787	623	771	678	758	705	836	771	795	690	755	677	853	888	1,344	1,328
6	Madras	2,291	1,970	854	1,009	207	224	219	363	485	673	479	450	449	382	557	437	985	1,025
7	Chingleput	2,396	2,064	1,034	954	464	404	352	443	612	901	763	748	802	621	864	724	1,469	1,579
8	South Arcot	2,778	2,347	2,716	2,602	1,102	880	825	891	1,398	1,751	1,586	1,534	1,714	1,221	1,588	1,377	2,911	3,105
9	Trichinopoly	2,001	1,741	1,568	1,499	591	588	427	534	700	957	885	878	1,013	832	1,123	1,002	2,013	2,358
10	Tanjore	5,998	4,941	2,773	2,654	1,036	995	856	1,188	1,300	2,071	1,620	1,703	1,820	1,377	1,847	1,550	4,179	4,876
11	Madura	878	732	1,356	1,277	908	771	897	752	1,409	1,393	1,707	1,599	1,795	1,520	1,442	1,319	1,574	1,739
12	Tinnevelly	2,658	2,325	2,460	2,457	780	730	742	736	1,348	1,432	1,693	1,490	1,722	1,344	1,708	1,519	2,666	3,239
13	Kurnool	449	379	617	660	864	971	998	930	1,903	1,999	2,245	2,046	1,986	1,605	1,755	1,590	1,631	1,818
14	Cuddapah	1,001	857	701	690	825	860	858	990	1,992	2,395	2,751	2,121	2,592	1,970	2,444	2,059	2,150	2,300
15	Bellary	1,067	869	994	1,214	1,359	1,406	1,533	1,666	3,043	3,586	3,651	3,176	3,629	2,550	2,916	2,303	3,028	2,920
16	North Arcot	2,520	2,199	1,501	1,499	969	1,003	982	1,221	1,830	2,595	2,310	2,248	2,070	1,727	1,805	1,834	2,769	3,013
17	Salem	1,749	1,590	1,442	1,400	1,200	1,090	1,111	1,037	1,865	2,298	2,423	2,513	2,304	2,153	1,798	1,984	1,781	2,230
18	Coimbatore	1,328	1,186	953	1,000	746	631	888	631	1,405	1,370	1,680	1,424	1,545	1,177	1,233	1,179	1,643	1,441
19	Nilgiris	112	93	62	68	35	25	52	24	101	66	100	82	78	50	51	37	38	48
20	South Canara	1,209	1,141	1,317	1,238	652	633	716	711	1,449	1,543	1,523	1,198	1,571	1,017	1,424	1,179	1,723	1,907
21	Malabar	1,336	988	2,153	1,958	983	852	1,330	1,104	2,639	2,114	3,013	2,022	2,388	1,433	1,964	1,342	3,114	3,480
	Total, Madras Presidency.	35,859	30,906	31,201	30,078	18,787	16,963	17,710	17,926	31,186	34,490	35,841	30,940	34,485	26,002	32,096	27,958	46,444	50,518
	Ratio per Mille of Population.	Males 20·5 Females 18·3				7·3	7·4	7·4	7·2	11·3	11·7	18·2	17·0	26·6	21·0	40·3	35·0	95·8	100·3

V.

Deaths registered according to Classes in the Districts of the Madras Presidency during the Year 1879.

1	2	3					4					5				
		Population for which Returns were received.					Number of Deaths registered.					Ratio of Deaths per 1,000 of Population.				
No.	Districts.	Native Christians.	Mahomedans.	Hindus.	Other Classes.	Total.	Native Christians.	Mahomedans.	Hindus.	Other Classes.	Total.	Native Christians.	Mahomedans.	Hindus.	Other Classes.	Total.
1	Ganjam	645	4,729	1,038,350	508	1,044,232	...	74	16,425	...	16,499	...	15·6	15·8	...	15·8
2	Vizagapatam	800	20,948	1,344,577	498	1,366,823	33	222	23,689	46	23,990	41·2	10·5	17·6	92·3	17·5
3	Godávari	585	35,173	1,556,005	340	1,592,103	11	464	43,255	263	43,993	18·8	13·1	27·7	773·5	27·6
4	Kistna	7,380	78,941	1,365,709	36	1,452,066	181	1,297	29,130	...	30,608	24·5	16·4	21·3	...	21·0
5	Nellore	2,653	65,670	1,308,024	136	1,376,483	103	827	13,237	22	14,189	38·8	12·5	10·1	161·7	10·3
6	Madras	21,441	50,964	308,611	910	381,926	615	1,680	10,764	...	13,159	28·6	32·9	34·8	...	34·1
7	Chingleput	11,471	23,201	899,833	18	934,523	124	280	16,790	...	17,194	10·8	12·0	18·6	...	18·3
8	South Arcot	30,219	44,567	1,680,323	215	1,755,324	231	509	31,551	35	32,326	7·6	11·4	18·7	162·7	18·4
9	Trichinopoly	50,822	32,024	1,115,919	390	1,199,155	854	432	19,424	...	20,710	16·7	13·4	17·4	...	17·2
10	Tanjore	65,262	102,703	1,804,025	830	1,972,820	1,112	1,980	39,690	2	42,784	174·0	19·2	22·0	2·4	21·6
11	Madura	27,231	48,586	1,253,175	215	1,329,207	...	847	22,221	...	23,068	...	17·4	17·7	...	17·3
12	Tinnevelly	102,249	84,753	1,506,621	6	1,693,629	1,453	1,712	27,883	1	31,049	14·2	20·1	18·5	166·6	18·3
13	Kurnool	3,644	100,444	810,074	71	914,233	67	2,494	21,816	69	24,446	18·3	24·8	26·9	971·8	26·7
14	Cuddapah	4,608	103,676	1,242,321	362	1,350,967	12	1,780	27,764	...	29,556	2·6	17·1	22·3	...	21·8
15	Bellary	3,354	127,783	1,534,550	128	1,665,815	65	2,706	38,139	...	40,910	19·3	21·1	24·8	...	24·5
16	North Arcot	6,316	86,741	1,920,909	288	2,014,254	58	782	33,255	...	34,095	9·1	9·01	17·3	...	16·9
17	Salem	12,684	52,312	1,901,088	278	1,966,362	295	733	30,940	...	31,968	23·2	14·0	16·2	...	16·2
18	Coimbatore	11,443	36,026	1,715,137	73	1,762,679	91	430	20,936	3	21,460	7·9	11·9	12·2	41·0	12·1
19	Nilgiris	2,935	1,936	67,481	44	72,396	107	75	935	5	1,122	36·4	38·7	13·8	113·6	15·4
20	South Canara	48,938	83,223	785,881	...	918,042	1,097	1,546	19,508	...	22,151	22·4	18·5	24·8	...	24·1
21	Malabar	17,998	595,899	1,612,890	1,441	2,228,228	761	8,873	24,577	2	34,213	42·2	14·8	15·2	1·3	15·3
	Total, Madras Presidency ...	432,678	1,780,299	26,771,503	6,787	28,991,267	7,270	29,743	511,929	448	549,390	16·8	16·7	19·1	66·0	18·9

VI.

Deaths registered from different Causes in the Districts and Towns of the Madras Presidency during the Year 1879.

1	2	3	4	5	6	7	8					9	10	11							
							Injuries.							Ratio of Deaths per 1,000 of Population.							
							Suicides.													Deaths.	
No.	Districts and Towns.	Population for which Returns were received.	Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Males.	Females.	Wounding and Accidents.	Snake-bite and killed by Wild Beasts.	Total.	All other Causes.	Total Deaths from all Causes.	Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Injuries.	All other Causes.	For the Year.	Mean of previous 5 Years ending 1878.
	A.—*Districts.**																				
1	Ganjam	978,723	67	1,474	11,098	203	21	22	205	67	315	1,871	15,028	0·0	1·5	11·3	0·2	0·3	1·9	15·3	14·0
2	Vizagapatam	1,268,774	416	454	18,164	134	45	46	258	70	419	1,144	20,731	0·3	0·3	14·3	0·1	0·3	0·9	16·3	14·5
3	Godávari	1,529,539	8,686	3,525	17,301	629	52	79	302	91	524	11,082	41,747	5·6	2·3	11·3	0·4	0·3	7·2	27·2	17·4
4	Kistna	1,387,377	2,347	1,227	14,756	385	97	123	537	84	841	9,934	29,490	1·6	0·8	10·6	0·2	0·6	7·1	21·2	16·5
5	Nellore	1,339,397	13	137	9,622	297	13	24	176	39	252	3,263	13,584	0·0	0·1	7·1	0·2	0·1	2·4	10·1	13·5
6	Madras	381,926	34	888	3,421	1,698	5	9	103	3	120	6,898	13,059	0·0	2·3	8·9	4·4	0·3	18·0	34·1	34·3
7	Chingleput	897,206	6	626	6,999	928	28	26	512	153	719	7,102	16,380	0·0	0·6	7·8	1·0	0·8	7·9	18·2	19·2
8	South Arcot	1,699,866	107	2,042	17,792	325	29	32	403	295	759	10,166	31,191	0·0	1·2	10·4	0·1	0·4	5·9	18·3	16·4
9	Trichinopoly	1,112,578	38	212	7,028	479	26	17	246	208	497	10,533	18,787	0·0	0·1	6·3	0·4	0·4	9·4	13·8	19·2
10	Tanjore	1,789,494	837	1,274	4,702	601	26	11	370	244	651	30,229	38,294	0·4	0·7	2·6	0·3	0·3	16·8	21·3	23·1
11	Madura	1,223,551	26	115	15,199	461	44	47	216	108	415	3,941	20,157	0·0	0·0	12·4	0·3	0·3	3·2	16·4	10·4
12	Tinnevelly	1,533,933	...	554	9,145	2,564	42	82	422	83	629	14,234	27,126	...	0·3	5·9	1·6	0·4	9·2	17·6	17·4
13	Kurnool	888,771	...	42	19,169	772	35	73	357	50	515	2,776	23,274	...	0·0	21·5	0·8	0·5	3·1	26·1	18·1
14	Cuddapah	1,334,783	1	54	24,616	465	51	81	606	99	837	2,673	28,646	0·0	0·0	18·4	0·3	0·6	2·0	21·5	17·6
15	Bellary	1,571,460	...	73	11,869	1,382	48	121	615	91	875	21,748	35,947	...	0·0	7·5	0·8	0·5	13·8	22·8	18·6
16	North Arcot	1,932,371	...	451	20,849	523	55	56	728	152	991	9,671	32,485	...	0·2	10·7	0·2	0·5	5·0	16·8	21·1
17	Salem	1,891,890	...	121	21,031	450	42	61	490	148	741	7,942	30,285	...	0·0	11·1	0·2	0·3	4·1	16·4	21·6
18	Coimbatore	1,697,382	...	153	14,070	866	41	43	501	85	670	4,721	20,480	...	0·0	8·2	0·5	0·3	2·7	12·0	15·2
19	Nilgiris	60,275	...	18	581	56	...	1	10	...	11	114	780	...	0·2	9·6	0·9	0·1	1·8	12·9	15·9
20	South Canara	888,619	...	120	10,791	2,613	35	25	302	60	422	7,571	21,517	...	0·1	12·1	2·9	0·4	8·5	24·2	17·5
21	Malabar	2,078,348	84	2,898	14,762	2,270	66	24	447	174	711	9,969	30,694	0·0	1·3	7·1	1·0	0·3	4·7	14·7	17·1
	Total of Districts ...	27,486,263	12,662	16,458	272,965	18,101	801	1,003	7,806	2,304	11,914	177,582	509,682	0·4	0·5	9·9	0·6	0·4	6·4	18·5	17·3

* Exclusive of B—Towns.

VI—(*Continued*).

Deaths registered from different Causes in the Districts and Towns of the Madras Presidency during the Year 1879.

1	2		3	4	5	6	7	8					9	10	11							
								Injuries.							Ratio of Deaths per 1,000 of Population.							
								Suicides.													Deaths.	
Number.	Districts and Towns.		Population for which Returns were received.	Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Males.	Females.	Wounding and Accidents.	Snake-bite and killed by Wild Beasts.	Total.	All other Causes.	Total Deaths from all Causes.	Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Injuries.	All other Causes.	For the Year.	Mean of previous 5 Years ending 1878.
	B.—*Towns.*																					
1	M.T. Berhampore	Ganjam.	21,524	2	182	79	11	...	...	3	3	6	347	627	0·0	8·4	3·6	0·5	0·2	16·1	29·1	19·6
2	M.T. Chicacole	Ganjam.	15,538	4	15	118	54	...	...	8	...	8	133	332	0·2	0·9	7·5	3·4	0·5	8·5	21·3	29·8
3	T. Ichápur	Ganjam.	12,493	...	16	128	2		...	2	...	2	3	151	...	1·2	10·2	0·1	0·1	0·2	12·0	15·0
4	T. Parlákimedi	Ganjam.	15,954	...	38	305	6	1	1	1	1	4	8	361	...	2·3	19·1	0·3	0·2	0·5	22·6	19·4
5	M.T. Vizagapatam	Vizagapatam.	31,462	61	106	276	228	3	9	8	...	20	829	1,520	1·9	3·3	8·7	7·2	0·6	26·3	48·3	33·6
6	M.T. Vizianagram	Vizagapatam.	20,164	...	2	586	25	2	...	8	...	10	...	623	...	9·9	29·0	1·2	0·4	...	30·8	29·4
7	M.T. Bimlipatam	Vizagapatam.	8,601	...	1	91	43	...	...	2	1	3	80	218	...	0·1	10·5	4·9	0·3	9·3	25·3	27·0
8	M.T. Ankapalle	Vizagapatam.	13,038	96	43	204	28	...	...	11	1	12	107	490	7·3	3·2	15·6	2·1	0·9	8·2	37·5	11·8
9	T. Bobbili	Vizagapatam.	14,151	1	...	276	2	3	3	...	...	6	...	285	0·0	...	19·5	0·1	0·4	...	20·1	11·1
10	T. Sálúr	Vizagapatam.	10,633	...	...	120	...	1	...	1	...	2	1	123	...	...	11·2	...	0·1	0·0	11·5	12·5
11	M.T. Ellore	Godávari.	25,433	175	6	91	48	1	3	4	5	13	453	786	6·8	0·2	3·5	1·8	0·5	17·8	30·9	29·1
12	M.T. Rajahmundry	Godávari.	19,622	72	5	152	98	...	3	5	1	9	451	787	3·6	0·2	7·7	4·9	0·4	22·9	40·1	21·5
13	M.T. Cocanada	Godávari.	17,509	81	2	42	88	...	1	13	...	14	446	673	4·6	0·1	2·3	5·0	0·7	25·4	38·4	26·8
14	M.T. Masulipatam	Kistna.	36,015	42	42	96	13	1	...	27	3	31	297	521	1·1	1·1	2·6	0·3	0·8	8·2	14·4	15·0
15	M.T. Guntúr	Kistna.	17,984	...	...	52	33	2	2	8	1	13	233	331	...	...	2·8	1·8	0·7	12·9	18·4	18·8
16	T. Bápatla	Kistna.	10,690	...	2	143	4	...	1	1	1	3	114	266	...	0·1	13·3	0·3	0·2	10·6	24·8	5·4
17	M.T. Nellore	Nellore.	29,698	...	...	113	60	1	1	8	1	11	185	369	...	...	3·8	2·0	0·3	6·2	12·4	21·9
18	M.T. Ongole	Nellore.	7,388	...	5	77	5	...	...	12	1	13	136	236	...	0·6	10·4	0·6	1·7	18·4	31·9	...
19	M.T. Conjeveram	Chingleput.	37,317	...	29	314	245	3	1	7	2	13	213	814	...	0·7	8·4	6·5	0·3	5·7	21·8	25·1
20	M.T. Cuddalore	South Arcot.	39,940	11	34	349	62	...	...	6	6	12	277	745	0·2	0·8	8·7	1·5	0·3	6·9	18·6	18·9
21	M.T. Chilambaram	South Arcot.	15,518	...	44	182	33	1	...	3	...	4	127	390	...	2·8	11·7	2·1	0·2	8·1	25·1	18·9
22	M.T. Trichinopoly	Trichinopoly.	75,306	1	26	350	435	...	1	20	3	24	646	1,482	0·0	0·3	4·6	5·7	0·3	8·5	19·6	23·0
23	M.T. Srírangam	Trichinopoly.	11,271	1	2	133	67	...	...	5	1	6	232	441	0·0	0·1	11·8	5·9	0·5	20·5	39·1	39·1
24	M.T. Tanjore	Tanjore.	52,014	...	13	229	321	...	2	8	1	11	529	1,103	...	0·2	4·4	6·1	0·2	10·1	21·2	29·6
25	M.T. Kumbakónam	Tanjore.	44,395	...	6	269	247	1	2	11	1	15	880	1,417	...	0·1	6·0	5·5	0·3	19·8	31·9	27·7
26	M.T. Negapatam	Tanjore.	48,075	54	7	248	199	...	...	10	5	15	479	1,002	1·1	0·1	5·1	4·1	0·3	9·9	20·8	29·4
27	M.T Máyavaram	Tanjore.	21,160	2	32	111	117	...	...	3	4	7	381	650	0·0	1·5	5·2	5·5	0·3	18·0	30·7	28·4
28	M.T. Manargudi	Tanjore.	17,682	1	...	45	54	...	...	3	2	5	213	318	0·0	...	2·5	3·0	0·2	12·0	17·9	27·9
29	M.T. Madura	Madura.	51,806	2	73	578	243	1	1	9	...	11	930	1,837	0·0	1·4	11·1	4·6	0·2	17·9	30·1	36·4
30	M.T. Dindigul	Madura.	12,811	...	3	109	37	...	...	4	1	5	71	225	..	0·2	8·5	2·8	0·3	5·5	17·5	15·8
31	T. Periyakulum	Madura.	13,468	...	3	153	13	...	...	...	2	2	53	224	...	0·2	11·3	0·9	0·1	3·9	16·6	18·5
32	T. Cumbum	Madura.	14,770	..	3	208	18	...	1	9	1	11	135	375	...	0·2	14·0	1·2	0·7	9·1	25·3	21·1
33	T. Palni	Madura.	12,801	...	...	71	9	...	...	10	1	11	159	250	...	...	5·5	0·7	0·8	12·4	19·5	28·4
34	M.T. Tinnevelly	Tinnevelly.	21,044	...	97	96	147	1	4	8	...	13	432	785	...	4·6	4·5	6·9	0·5	20·5	37·3	37·7
35	M.T. Palamcottah	Tinnevelly.	17,785	...	31	73	98	...	2	1	1	4	318	524	...	1·7	4·1	5·5	0·2	17·8	29·4	31·2
36	M.T. Tuticorin	Tinnevelly.	10,475	...	2	94	124	...	1	4	...	5	164	389	...	0·1	8·9	11·8	0·4	15·6	37·1	49·4
37	T. Káyalpatnam	Tinnevelly.	11,197	...	...	34	...	...	...	...	...	...	68	102	...	...	3·0	...	...	6·0	9·1	23·1
38	T. Watrap	Tinnevelly.	14,892	...	8	17	1	...	...	5	...	5	54	85	...	0·5	1·1	0·0	0·3	3·6	5·7	16·7
39	T. Nachiarkoil	Tinnevelly.	14,136	...	6	53	...	...	...	12	...	12	293	364	...	0·4	3·7	...	0·8	2·0	25·7	17·6
40	T. Sankaranainarkoil	Tinnevelly.	11,632	...	...	5	1	1	3	6	...	10	192	207	...	...	0·3	0·0	0·8	16·5	17·7	14·4
41	T. Sivagiri	Tinnevelly.	14,025	...	...	48	40	2	...	2	...	4	148	240	...	...	3·4	2·8	0·2	10·5	17·9	20·5
42	T. Viravanallur	Tinnevelly.	12,172	...	10	51	1	...	1	...	...	1	160	223	...	0·8	4·1	0·0	0·0	13·1	18·9	16·7
43	T. Kulladakurichi	Tinnevelly.	11,580	...	10	47	16	...	1	1	...	2	174	249	...	0·8	4·0	1·3	0·1	15·0	21·5	23·6
44	T. Sivakási	Tinnevelly.	10,153	...	...	34	1	1	4	4	...	9	108	152	...	...	3·3	0·0	0·8	10·6	14·8	15·6
45	T. Tenkási	Tinnevelly.	10,605	...	3	305	12	...	1	1	...	2	281	603	...	0·2	28·7	1·1	0·1	26·5	56·8	19·7
46	M.T. Kurnool	Kurnool.	25,462	...	...	611	138	2	1	38	1	42	381	1,172	...	...	23·9	5·4	1·6	14·9	46·0	37·0
47	M.T. Cuddapah	Cuddapah.	16,184	...	...	561	24	1	2	10	...	13	312	910	...	...	34·6	1·4	0·8	19·3	56·2	42·0
48	M.T. Bellary	Bellary.	49,959	...	...	739	180	2	13	78	2	95	1,230	2,244	...	...	14·7	3·6	1·9	24·6	44·9	21·2
49	M.T. Ádóni	Bellary.	22,722	...	...	382	682	2	...	13	1	16	727	1,807	...	...	16·8	30·0	0·7	31·9	79·5	43·3
50	M.T. Gooty	Bellary.	6,705	...	...	38	63	...	...	3	...	3	106	210	...	...	5·6	9·3	0·4	15·8	31·3	22·3
51	M.T. Anantapur	Bellary.	4,909	...	...	65	...	...	2	5	...	7	48	120	...	...	13·2	..	1·4	9·7	24·4	21·5
52	T. Hospet	Bellary.	10,060	...	5	130	2	...	...	10	2	12	433	582	...	0·4	12·9	0·1	1·1	43·0	57·8	31·4
53	M.T. Vellore	North Arcot.	37,569	...	28	268	58	...	1	3	...	4	284	642	...	0·7	7·1	1·5	0·1	7·5	17·0	27·9
54	M.T. Wálajápet	North Arcot.	12,099	...	58	111	13	1	...	2	...	3	177	362	...	4·7	9·1	1·0	0·2	14·6	3·1	30·8
55	T. Arcot	North Arcot.	10,988	...	2	95	4	...	1	3	...	4	128	233	...	0·1	8·6	0·3	0·3	11·6	21·2	32·1
56	T. Gudiyátam	North Arcot.	10,804	...	...	176	...	...	...	1	...	1	10	187	...	...	16·2	...	0·09	0·9	17·3	24·1
57	T. Tirupati	North Arcot.	10,423	...	...	128	2	...	...	...	...	...	56	186	...	...	12·2	0·1	...	5·3	17·8	30·0
58	M.T. Salem	Salem.	49,873	...	3	448	146	1	.	6	1	8	493	1,098	...	0·0	8·9	2·9	0·1	9·8	22·0	25·4
59	T. Tirupatúr	Salem.	12,816	...	...	134	7	...	...	5	1	6	332	479	...	.	10·4	0·5	0·4	25·9	9·6	25·8
60	T. Sundamungalum	Salem.	11,783	...	9	71	...	1	...	5	2	8	18	106	...	0·7	6·0	...	0·6	1·5	8·9	11·9
61	M.T. Coimbatore	Coimbatore.	34,968	...	1	163	47	2	1	6	...	9	249	469	...	0·0	4·6	1·3	0·2	7·1	13·4	12·4
62	M.T. Erode	Coimbatore.	10,188	..	...	57	25	...	...	3	1	4	76	162	...	...	5·5	2·4	0·3	7·4	15·9	20·4
63	M.T. Karúr	Coimbatore.	9,378	...	...	66	21	...	2	2	...	4	76	167	...	...	7·0	2·2	0·4	8·1	17·8	22·1
64	T. Aravakurchi	Coimbatore.	10,763	...	...	49	2	...	...	2	...	2	129	182	...	...	4·5	0·1	0·1	11·9	16·9	23·9

VI—(*Continued*).

Deaths registered from different Causes in the Districts and Towns of the Madras Presidency during the Year 1879—(Continued).

1	2		3	4	5	6	7	8					9	10	11							
								Injuries.							Ratio of Deaths per 1,000 of Population.							
								Suicides.													Deaths.	
Number.	Districts and Towns.		Population for which Returns were received.	Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Males.	Females.	Wounding and Accidents.	Snake-bite and killed by Wild Beasts.	Total.	All other Causes.	Total Deaths from all Causes.	Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Injuries.	All other Causes.	For the Year.	Mean of previous 5 Years ending 1878.
	B.—*Towns*—(Continued).																					
65	M.T. Ootacamund ...	Nilgiris.	9,213	...	...	66	24	...	...	3	...	3	140	233	...	...	7·1	2·6	0·3	15·1	25·2	29·9
66	M.T. Coonoor	Nilgiris.	2,908	...	...	25	47	...	...	1	...	1	36	109	...	...	8·5	16·1	0·3	12·3	37·4	37·4
67	M.T. Mangalore	South Canara.	29,423	...	...	179	93	2	1	18	...	21	341	634	...	...	6·0	3·1	0·7	11·5	21·5	24·9
68	M.T. Tellicherry	Malabar.	19,434	...	...	96	46	...	...	6	...	6	268	416	...	...	4·9	2·3	0·3	13·6	21·4	25·9
69	M.T. Calicut	Malabar.	47,149	...	119	88	67	...	...	8	...	8	698	980	...	2·5	1·8	1·4	0·1	14·8	20·7	29·3
70	M.T. Pálghat	Malabar.	30,689	...	11	400	77	2	2	6	3	13	487	988	...	0·3	13·0	2·5	0·4	15·8	32·1	29·1
71	M.T. Cochin	Malabar.	12,315	28	161	109	33	...	...	3	1	4	312	617	2·2	13·0	8·8	17·0	0·3	25·3	52·5	31·2
72	M.T. Cannanore	Malabar.	28,840	...	2	73	9	5	...	4	...	9	268	361	...	0·0	2·5	0·3	0·3	9·2	12·5	29·4
73	T. Ponáni	Malabar.	11,453	...	76	30	18	...	...	...	...	...	3	127	...	6·6	2·6	1·5	...	0·2	11·0	12·4
	Total, Towns ...		1,505,004	634	1,382	12,512	5,117	47	75	518	65	705	19,358	39,708	0·4	0·9	8·3	3·3	0·4	12·8	26·3	27·5
	Total, Madras Presidency ...		28,991,267	13,296	17,840	285,477	23,218	848	1,078	8,324	2,369	12,619	196,940	549,390	0·4	0·6	9·8	0·8	0·4	6·8	18·9	18·1

VII.

Deaths registered from Cholera in the Districts of the Madras Presidency during each Month of the Year 1879.

1	2	3		4		5												6			7			8
		Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			
Number.	Districts.	No. in each District.	No. from which Deaths from Cholera were reported.	No. in each District.	No. from which Deaths from Cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.	Mean Ratio per 1,000 for previous 5 Years ending 1878.
1	Ganjam	6	6	5,174	19	44	7	14	1	...	3	1	2	...	...	...	1	41	32	73	0·0	0·0	0·0	0·8
2	Vizagapatam	18	11	2,915	48	214	152	138	11	1	...	16	37	1	4	...	...	299	275	574	0·4	0·4	0·4	0·7
3	Godávari	14	14	2,128	674	985	209	102	123	271	1,423	3,970	1,506	300	105	20	...	4,720	4,294	9,014	5·8	5·4	5·6	0·2
4	Kistna	14	12	2,141	324	1,375	423	64	117	56	52	199	101	...	...	...	2	1,218	1,171	2,389	1·6	1·6	1·6	0·2
5	Nellore	12	6	2,184	7	...	...	...	...	8	...	...	4	1	...	...	...	6	7	13	0·0	0·0	0·0	0·7
6	Madras	1	1	37	9	31	...	...	2	...	...	...	...	...	...	...	1	19	15	34	0·1	0·0	0·0	0·7
7	Chingleput	7	1	2,394	2	...	5	...	1	...	...	...	...	...	...	...	...	2	4	6	0·0	0·0	0·0	0·5
8	South Arcot	10	7	3,118	29	84	25	4	...	...	...	...	3	...	...	2	...	62	56	118	0·0	0·0	0·0	1·1
9	Trichinopoly	8	7	1,674	34	5	13	5	6	4	...	3	3	1	...	...	...	33	7	40	0·0	0·0	0·0	1·5
10	Tanjore	14	12	3,967	202	125	194	208	71	110	123	39	15	7	...	2	...	454	440	894	0·4	0·4	0·4	1·9
11	Madura	9	3	1,224	6	...	11	16	1	...	...	...	...	...	...	...	...	15	13	28	0·0	0·0	0·0	1·1
12	Tinnevelly	12	...	1,849	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·1
13	Kurnool	9	...	787	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·2
14	Cuddapah	12	1	1,311	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	0·0	...	0·0	0·8
15	Bellary	20	...	2,543	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·3
16	North Arcot	12	...	5,241	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·9
17	Salem	10	...	5,312	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·9
18	Coimbatore	13	...	1,579	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·6
19	Nílgiris	3	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·1
20	South Canara	6	...	1,291	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·1
21	Malabar	17	7	436	18	82	20	10	...	...	...	...	...	...	...	...	...	64	48	112	0·0	0·0	0·0	0·3
	Total, Madras Presidency.	227	88	47,325	1,373	2,945	1,060	561	333	450	1,601	4,228	1,671	310	109	24	4	6,934	6,362	13,296	0·4	0·4	0·4	0·8

VIII.

Deaths registered from Small-pox in the Districts of the Madras Presidency during each Month of the Year 1879.

1	2	3		4		5												6			7		8			9
Number.	Districts.	Circles of Registration.		Villages.														Total.			No. of these Deaths among Children.		Total Ratio of Deaths per 1,000 of Population.			Mean Ratio per 1,000 for previous 5 Years ending 1878.
		No. in each District.	No. from which Deaths from Small-pox were reported.	No. in each District.	No. from which Deaths from Small-pox were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Under 1 Year.	Under 12 Years.	Males.	Females.	Total.	
1	Ganjam	6	6	5,174	Information not available.	144	215	161	136	116	123	107	125	103	84	93	316	893	832	1,725	212	861	1·6	1·6	1·6	0·7
2	Vizagapatam ...	18	18	2,915		144	82	121	106	31	44	28	15	8	9	16	2	340	266	606	52	267	0·4	0·3	0·4	0·5
3	Godávari ...	14	14	2,128		621	721	729	486	292	241	179	80	52	62	20	57	2,023	1,515	3,538	444	886	2·5	1·9	2·2	1·3
4	Kistna	14	12	2,141		195	215	200	152	122	75	96	77	63	25	28	23	692	579	1,271	181	555	0·9	0·7	0·9	1·1
5	Nellore	12	11	2,184		15	33	25	19	11	2	8	10	1	2	13	3	65	77	142	7	13	0·0	0·1	0·1	0·5
6	Madras	1	1	37		45	131	158	165	80	44	54	48	42	58	33	30	422	466	888	293	545	2·2	2·3	2·3	1·5
7	Chingleput ...	7	7	2,394		50	53	92	58	49	40	57	84	51	38	27	56	360	295	655	138	359	0·7	0·6	0·7	1·5
8	South Arcot ...	10	10	3,118		170	222	168	161	108	106	157	251	218	229	210	120	1,109	1,011	2,120	348	1,236	1·2	1·1	1·2	1·7
9	Trichinopoly ...	8	8	1,674		25	42	33	28	16	16	29	12	23	9	4	3	112	128	240	52	136	0·1	0·2	0·2	0·7
10	Tanjore	14	13	3,967		170	204	182	129	111	108	110	82	75	75	49	37	674	658	1,332	240	584	0·7	0·6	0·6	1·2
11	Madura	9	8	1,224		8	7	17	5	6	6	11	19	17	25	35	41	101	96	197	40	127	0·1	0·1	0·1	2·2
12	Tinnevelly ...	12	12	1,849		49	57	34	43	28	43	78	49	77	72	92	99	368	353	721	151	414	0·4	0·4	0·4	1·7
13	Kurnool	9	8	787		2	2	3	1	2	7	...	13	2	3	3	4	22	20	42	...	9	0·0	0·0	0·0	1·0
14	Cuddapah ...	12	11	1,311		4	...	1	2	6	6	2	6	3	4	9	11	24	30	54	6	22	0·0	0·0	0·0	0·7
15	Bellary	20	14	2,543		4	7	4	5	14	6	3	9	5	10	6	5	44	34	78	7	9	0·0	0·0	0·0	0·9
16	North Arcot ...	12	12	5,241		43	55	75	39	44	19	25	30	45	44	66	54	280	259	539	62	306	0·2	0·2	0·2	1·5
17	Salem	10	10	5,312		10	9	10	11	5	6	7	25	7	16	18	9	78	55	133	31	43	0·0	0·0	0·0	1·5
18	Coimbatore ...	13	11	1,579		25	15	30	15	2	9	14	4	8	15	7	10	70	84	154	16	104	0·0	0·0	0·0	0·7
19	Nilgiris ...	3	1	20		...	...	...	1	...	5	3	...	...	...	9	...	12	6	18	...	...	0·3	0·1	0·2	0·2
20	South Canara ...	6	5	1,291		7	7	7	8	4	1	8	16	2	21	12	27	57	63	120	13	38	0·1	0·1	0·1	0·9
21	Malabar	17	14	436		395	639	640	425	187	190	228	158	124	98	72	111	1,839	1,428	3,267	66	376	1·6	1·2	1·4	1·1
	Total, Madras Presidency.	227	206	47,325		2,126	2,716	2,690	1,995	1,234	1,097	1,204	1,113	926	899	822	1,018	9,585	8,255	17,840	2,359	6,890	0·6	0·5	0·6	1·2

IX.

Deaths registered from Fevers in the Districts of the Madras Presidency during each Month of the Year 1879.

1	2	3		4		5												6			7		8
Number.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.		
		No. in each District.	No. from which Deaths from Fevers were reported.	No. in each District.	No. from which Deaths from Fevers were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.	Mean Ratio per 1,000 for previous 5 Years ending 1878.
1	Ganjam	6	6	5,174	Information not available.	1,227	834	908	891	677	752	892	968	1,088	1,099	1,166	1,226	6,278	5,450	11,728	11·5	10·8	11·2	9·6
2	Vizagapatam ...	18	18	2,915		1,977	1,648	1,216	1,111	922	1,053	1,694	2,296	2,331	1,968	1,714	1,787	10,461	9,256	19,717	14·9	13·8	14·4	10·4
3	Godávari	14	14	2,128		2,715	1,403	1,054	911	820	929	1,464	1,368	1,044	1,625	2,244	2,009	9,240	8,346	17,586	11·5	10·5	11·0	9·3
4	Kistna	14	14	2,141		2,199	1,248	864	774	736	772	906	940	1,009	1,656	2,039	1,904	7,929	7,118	15,047	10·7	9·6	10·3	7·7
5	Nellore	12	12	2,184		1,207	624	570	381	422	1,889	522	610	870	896	910	911	5,149	4,663	9,812	7·2	6·9	7·1	6·6
6	Madras	1	1	37		360	259	244	240	248	245	267	295	302	288	307	366	1,641	1,780	3,421	8·7	9·1	8·9	6·4
7	Chingleput	7	7	2,394		729	496	437	392	361	384	587	591	712	831	821	972	3,655	3,658	7,313	7·7	7·9	7·8	5·8
8	South Arcot ...	10	10	3,118		2,756	1,990	1,677	1,533	909	799	949	1,131	1,786	1,772	1,523	1,498	9,413	8,910	18,323	10·6	10·2	10·4	6·9
9	Trichinopoly ...	8	8	1,674		1,038	833	598	540	487	459	534	589	678	603	559	593	3,774	3,737	7,511	6·4	6·1	6·2	7·7
10	Tanjore	14	14	3,967		545	381	334	345	338	327	378	458	680	635	574	609	2,746	2,858	5,604	2·8	2·8	2·8	3·1
11	Madura	9	9	1,224		3,374	2,575	2,055	1,243	1,111	967	851	796	855	817	760	914	8,380	7,938	16,318	12·7	11·8	12·2	4·6
12	Tinnevelly	12	12	1,859		1,108	891	832	813	811	850	851	928	790	695	669	763	5,208	4,793	10,001	6·2	5·5	5·9	4·3
13	Kurnool	9	9	787		2,024	1,652	1,578	1,503	1,424	1,481	1,808	1,851	1,489	1,376	1,497	2,097	10,219	9,561	19,780	21·8	21·4	21·6	13·7
14	Cuddapah	12	12	1,311		3,114	2,576	2,247	2,151	1,828	1,355	1,472	1,739	1,914	1,982	2,130	2,669	13,140	12,037	25,177	18·9	18·3	18·6	12·6
15	Bellary	20	20	2,543		1,644	1,176	1,315	1,457	1,101	854	896	939	973	880	891	1,097	6,942	6,281	13,223	8·0	7·7	7·9	6·1
16	North Arcot ...	12	12	5,241		3,718	2,509	1,889	1,645	1,224	969	1,264	1,513	1,732	1,577	1,622	1,965	10,668	10,959	21,627	10·4	11·0	10·7	10·2
17	Salem	10	10	5,312		4,910	3,038	2,025	1,529	1,308	1,161	1,246	1,239	1,334	1,278	1,287	1,329	10,554	11,130	21,684	10·8	11·2	11·0	11·5
18	Coimbatore	13	13	1,579		2,078	2,210	1,978	1,247	1,013	821	868	909	895	753	794	839	7,697	6,708	14,405	8·8	7·5	8·1	6·7
19	Nílgiris	3	3	20		55	42	53	49	58	76	68	70	57	56	44	44	373	299	672	9·7	8·7	9·2	11·2
20	South Canara ...	6	6	1,291		1,315	1,120	1,017	1,119	1,209	1,247	1,167	772	634	437	456	477	5,792	5,178	10,970	12·6	11·2	11·9	5·3
21	Malabar	17	17	436		1,570	1,597	1,405	1,411	1,270	1,376	1,457	1,335	1,240	1,000	928	969	8,854	6,704	15,558	7·9	6·0	6·9	5·9
	Total, Madras Presidency ..	227	227	47,325		39,663	29,102	24,296	21,285	18,277	18,766	20,141	21,337	22,413	22,224	22,935	25,038	148,113	137,364	285,477	10·1	9·5	9·8	7·6

X.

Deaths registered from Bowel-complaints in the Districts of the Madras Presidency during each Month of the Year 1879.

1	2	3		4		5												6			7			8
Number.	Districts.	Circles of Registration.		Villages.														Total.			Ratio of Deaths per 1,000 of Population.			Mean Ratio per 1,000 for previous 5 years ending 1876.
		No. in each District.	No. from which Deaths from Bowel-complaints were reported.	No. in each District.	No. from which Deaths from Bowel-complaints were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.	
1	Ganjam	6	6	5,174	Information not available.	31	18	17	19	17	25	17	37	26	37	12	20	165	111	276	0·3	0·2	0·2	0·5
2	Vizagapatam	18	18	2,915		57	59	50	32	22	27	48	50	32	36	28	19	252	208	460	0·3	0·3	0·3	0·3
3	Godávari	14	14	2,128		116	75	74	66	80	64	117	92	64	51	28	36	473	390	863	0·5	0·4	0·5	0·5
4	Kistna	14	14	2,141		59	31	32	40	33	37	28	28	37	32	42	36	220	215	435	0·2	0·2	0·2	0·4
5	Nellore	12	12	2,184		65	20	37	23	17	115	16	9	14	7	26	13	198	164	362	0·2	0·2	0·2	0·5
6	Madras	1	1	37		185	129	109	125	122	110	144	182	163	146	132	151	845	853	1,698	4·5	4·3	4·4	5·0
7	Chingleput	7	7	2,394		95	67	92	71	85	83	88	124	96	114	138	120	604	569	1,173	1·2	1·2	1·2	2·2
8	South Arcot	10	10	3,118		47	21	26	28	22	27	49	49	45	35	33	38	242	178	420	0·2	0·2	0·2	0·9
9	Trichinopoly	8	8	1,674		85	83	63	65	68	77	88	98	106	103	72	73	510	471	981	0·8	0·7	0·8	1·2
10	Tanjore	14	14	3,967		163	127	84	116	123	115	139	138	167	119	113	135	797	742	1,539	0·8	0·7	0·6	1·0
11	Madura	9	8	1,224		70	41	58	49	56	60	63	70	78	83	80	73	422	359	781	0·6	0·5	0·5	1·1
12	Tinnevelly	12	12	1,849		346	237	199	199	213	239	249	244	244	249	267	319	1,520	1,485	3,005	1·8	1·7	1·7	3·8
13	Kurnool	9	9	787		53	53	72	53	49	52	112	170	108	92	59	37	426	484	910	0·9	1·0	0·9	0·5
14	Cuddapah	12	12	1,311		50	54	43	34	40	34	28	40	38	37	48	43	244	245	489	0·2	0·3	0·3	0·6
15	Bellary	20	19	2,543		249	213	248	160	207	182	250	257	175	102	105	161	1,102	1,207	2,309	1·2	1·4	1·3	1·1
16	North Arcot	12	12	5,241		63	50	49	27	38	47	41	56	50	54	58	67	310	290	600	0·3	0·2	0·2	1·1
17	Salem	10	10	5,312		60	52	41	31	47	42	57	67	63	51	48	44	321	282	603	0·3	0·2	0·3	0·9
18	Coimbatore	13	13	1,579		65	54	68	69	90	53	108	125	81	86	78	84	550	411	961	0·6	0·4	0·5	1·6
19	Nílgiris	3	3	20		9	6	9	6	8	3	12	14	24	14	13	9	72	55	127	1·8	1·6	1·7	2·4
20	South Canara	6	6	1,291		417	328	237	221	163	192	201	193	188	175	170	221	1,480	1,226	2,706	3·2	2·6	2·9	3·5
21	Malabar	17	16	436		224	162	185	204	217	210	313	276	258	181	144	146	1,357	1,163	2,520	1·2	1·0	1·1	2·7
	Total, Madras Presidency.	227	224	47,325		2,509	1,880	1,793	1,638	1,717	1,794	2,168	2,319	2,057	1,804	1,694	1,845	12,110	11,108	23,218	0·8	0·7	0·8	1·3

X1.

Births and Deaths registered among Europeans and Eurasians from different Causes in each District of the Madras Presidency, and the Number Born Dead among all Classes during the Year 1879.

1	2		3			4			5			6			7			8														
No.	Districts.		Population for which Returns were received.			Cholera.			Small-pox.			Fevers.			Bowel-complaints.			Injuries. Suicides.			Wounds.			Accidents.			Snake-bite.			Killed by Wild Beasts.		
			M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M	F.	Total.	M	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1	Ganjam ...	Europeans ...	103	49	152	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	102	103	205	...	1	1	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	Vizagapatam.	Europeans ...	245	152	397	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	365	446	811	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Godávari ...	Europeans ...	252	199	451	1	...	1	...	...	...	1	...	1	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	202	183	385	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Kistna ...	Europeans ...	53	37	90	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	123	95	218	...	...	...	1	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	Nellore ...	Europeans ...	59	42	101	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	121	116	237	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	Madras ...	Europeans ...	2,270	1,343	3,613	1	...	1	2	...	2	3	3	6	9	8	17	1	...	1	1	...	1	1	2	3	...	...	...	...	...	...
		Eurasians ...	5,810	6,203	12,013	...	...	...	8	12	20	19	19	38	22	22	44	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...
7	Chingleput ...	Europeans ...	1,516	574	2,090	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
		Eurasians ...	624	947	1,571	...	...	...	...	...	...	4	2	6	1	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
8	South Arcot.	Europeans ...	67	56	123	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	190	180	370	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	Trichinopoly.	Europeans ...	457	166	623	...	...	...	...	...	...	1	...	1	1	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	287	343	630	...	...	...	...	...	..	2	1	3	3	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	Tanjore ...	Europeans ...	219	170	389	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	257	265	522	...	...	...	...	...	...	1	1	2	1	...	1	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
11	Madura ...	Europeans ...	105	63	168	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	81	92	173	...	...	...	...	...	...	4	1	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	Tinnevelly ...	Europeans ...	121	76	197	...	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	62	71	133	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	Kurnool ...	Europeans ...	32	8	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	92	68	160	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	Cuddapah ...	Europeans ...	53	44	97	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...
		Eurasians ...	67	63	130	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	Bellary ...	Europeans ...	1,003	214	1,217	...	...	...	...	...	...	7	2	9	3	...	3	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
		Eurasians ...	521	453	974	...	...	...	...	...	...	2	...	2	2	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	North Arcot.	Europeans ...	198	150	348	...	...	...	...	...	...	2	...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	361	315	676	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	Salem ...	Europeans ...	168	88	256	...	...	...	...	...	...	...	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	194	183	377	...	...	...	...	...	...	...	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	Coimbatore.	Europeans ...	109	44	153	...	...	...	...	...	...	2	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	224	218	442	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
19	Nílgiris ...	Europeans ...	818	521	1,339	...	...	...	...	...	...	4	...	4	1	...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
		Eurasians ...	523	273	796	...	...	...	...	...	...	...	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	South Canara	Europeans ...	83	47	130	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
		Eurasians ...	96	94	190	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	Malabar ...	Europeans ...	2,021	558	2,579	...	...	...	...	...	...	4	...	4	3	2	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eurasians ...	2,780	2,633	5,413	1	...	1	...	...	...	1	1	2	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	Europeans ...	9,952	4,601	14,553	2	...	2	2	...	2	27	7	34	21	16	37	1	...	1	2	...	2	3	3	6	...	...	...	...	...	...
		Eurasians ...	13,082	13,344	26,426	1	2	3	9	12	21	36	34	70	34	27	61	...	...	...	...	...	...	2	2	4	...	...	...	...	...	...

XI—(*Continued*).

Births and Deaths registered among Europeans and Eurasians from different Causes in each District of the Madras Presidency, and the Number Born Dead among all Classes during the Year 1879—(Continued).

No.	Districts.		Population for which Returns were received.			9 All other Causes.			10 Total Deaths from all Causes.			11 Total Births.			12 Ratio per 1,000 of Population. Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Injuries.	Total Deaths.			Total Births.			13 Born Dead among all Classes.		
			M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.						M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1	Ganjam ...	Europeans ...	103	49	152	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	40·8	13·1	98	95	193
		Eurasians ...	102	103	205	...	...	...	1	2	3	...	3	3	4·9	...	9·7	...	...	9·8	19·4	14·6	...	29·1	14·6			
2	Vizagapatam.	Europeans ...	245	152	397	9	...	9	9	1	10	2	3	5	...	...	...	2·5	...	36·7	6·5	25·1	8·1	19·7	12·5	149	122	271
		Eurasians ...	365	446	811	9	12	21	10	13	23	5	9	14	...	...	...	2·4	...	27·4	29·1	28·3	13·7	20·2	17·3			
3	Godávari ...	Europeans ...	252	199	451	3	...	3	6	1	7	1	2	3	2·2	...	2·2	4·4	...	23·8	5·0	15·5	3·9	10·0	6·6	146	113	259
		Eurasians ..	202	183	385	4	2	6	4	3	7	5	...	5	2·6	...	...	...	...	19·8	16·3	18·1	24·7	...	12·9			
4	Kistna ...	Europeans ...	53	37	90	...	...	...	...	...	...	2	...	2	...	...	...	...	...	..	...	..	37·7	...	22·2	148	152	300
		Eurasians ...	123	95	218	...	...	...	1	1	2	1	1	2	...	4·5	4·5	...	...	8·1	10·5	9·1	8·1	10·5	9·1			
5	Nellore ...	Europeans ...	59	42	101	...	...	...	...	...	...	3	1	4	...	...	...	...	...	...	..	..	50·8	23·8	39·6	229	158	387
		Eurasians ...	121	116	237	1	2	3	2	2	4	1	...	1	...	...	...	4·2	...	16·5	17·2	16·8	8·2	...	4·2			
6	Madras ...	Europeans ...	2,270	1,343	3,613	41	16	57	59	29	88	65	72	137	0·2	0·5	1·6	4·7	1·3	25·9	21·5	24·3	28·6	53·6	37·9	189	166	355
		Eurasians ...	5,810	6,203	12,013	104	93	197	155	146	301	221	179	400	...	1·6	3·1	3·6	0·1	26·6	23·5	25·0	38·0	28·8	33·2			
7	Chingleput ...	Europeans ...	1,516	574	2,090	16	7	23	18	8	26	19	14	33	...	...	0·9	...	0·4	11·8	13·9	12·4	12·5	24·4	15·7	471	400	871
		Eurasians ...	624	947	1,571	7	4	11	12	7	19	12	5	17	...	...	3·8	0·6	0·6	19·2	7·4	12·0	19·2	5·2	10·8			
8	South Arcot.	Europeans ...	67	56	123	2	1	3	2	2	4	...	2	2	...	...	..	8·1	...	29·8	35·7	32·5	...	35·7	16·2	329	254	583
		Eurasians ...	190	180	370	2	3	5	2	3	5	6	6	12	...	...	...	...	...	10·5	16·6	13·5	31·5	33·3	32·4			
9	Trichinopoly.	Europeans ...	457	166	623	2	1	3	4	3	7	7	5	12	...	...	1·6	4·8	...	8·7	18·0	11·2	15·3	30·1	19·2	326	274	600
		Eurasians ...	287	343	630	7	6	13	12	8	20	11	4	15	...	...	4·7	6·3	...	41·8	23·3	31·7	38·3	11·6	23·8			
10	Tanjore ...	Europeans ...	219	170	389	2	4	6	3	4	7	4	4	8	...	...	...	2·5	...	13·7	23·5	17·9	18·2	23·5	20·5	883	855	1,738
		Eurasians ...	257	265	522	3	5	8	5	6	11	4	5	9	...	...	3·8	1·9	...	19·4	22·6	21·0	15·5	18·8	17·2			
11	Madura ...	Europeans ...	105	63	168	...	1	1	...	1	1	3	3	6	...	...	...	...	...	...	15·8	5·9	28·5	47·6	35·7	135	118	253
		Eurasians ...	81	92	173	2	1	3	6	2	8	3	1	4	...	...	28·9	...	...	74·0	21·7	46·2	37·0	10·8	23·1			
12	Tinnevelly ...	Europeans ...	121	76	197	...	1	1	2	1	3	...	3	3	...	...	...	10·1	...	16·5	13·1	15·2	...	39·4	15·2	420	329	749
		Eurasians ...	62	71	133	3	1	4	3	2	5	5	7	12	...	...	...	7·5	...	48·4	28·1	37·5	80·6	98·6	90·0			
13	Kurnool ...	Europeans ...	32	8	40	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	31·2	125·0	50·0	67	59	126
		Eurasians ...	92	68	160	1	1	2	1	3	4	1	1	2	...	...	12·5	...	...	10·8	44·1	25·0	10·8	14·7	12·5			
14	Cuddapah ...	Europeans ...	53	44	97	1	...	1	1	...	1	...	...	...	...	...	...	...	...	18·8	...	10·3	...	...	...	156	165	321
		Eurasians ...	67	63	130	1	2	3	2	3	5	...	...	...	...	...	15·3	...	...	29·8	44·7	38·4	...	...	...			
15	Bellary ...	Europeans ...	1,003	214	1,217	12	10	22	23	12	35	13	18	31	...	...	7·3	2·4	0·8	22·9	56·0	28·7	12·9	84·1	25·4	101	101	202
		Eurasians ...	521	453	974	3	3	6	7	4	11	7	6	13	...	...	2·1	3·1	...	13·4	8·8	11·2	13·4	13·2	13·3			
16	North Arcot.	Europeans ...	198	150	348	...	...	...	3	...	3	...	...	...	...	...	5·7	2·8	..	15·1	...	8·6	...	..	...	397	385	782
		Eurasians ...	361	315	676	4	3	7	5	3	8	...	2	2	...	...	...	1·4	...	13·8	9·5	11·8	...	6·3	2·9			
17	Salem ...	Europeans ...	168	88	256	1	...	1	1	2	3	...	2	2	...	...	3·9	3·9	...	5·9	22·7	11·7	...	22·7	7·8	241	204	445
		Eurasians ...	194	183	377	7	2	9	7	4	11	6	2	8	...	...	2·6	2·6	...	36·1	21·8	29·1	30·9	10·9	21·2			
18	Coimbatore...	Europeans ...	109	44	153	...	...	...	2	1	3	1	...	1	...	...	19·6	...	...	18·3	22·7	19·6	9·1	...	6·5	143	123	266
		Eurasians ...	224	218	442	...	...	...	1	1	2	5	2	7	...	...	2·2	...	2·2	4·4	4·5	4·5	22·3	9·1	15·8			
19	Nílgiris ...	Europeans ...	818	521	1,339	19	8	27	25	8	33	23	23	46	...	...	2·9	0·7	0·7	30·5	15·3	24·5	28·1	44·1	34·3	5	2	7
		Eurasians ...	523	273	796	8	9	17	8	12	20	3	6	9	...	...	3·7	...	...	15·2	43·9	25·1	5·7	21·9	11·3			
20	South Canara	Europeans ...	83	47	130	...	...	...	1	...	1	6	2	8	...	...	...	...	7·6	12·0	...	7·6	72·2	42·5	61·5	302	271	573
		Eurasians ...	96	94	190	...	1	1	...	1	1	3	3	6	...	...	...	...	...	...	10·6	5·2	31·2	31·9	31·5			
21	Malabar ...	Europeans ...	2,021	558	2,579	7	1	8	14	3	17	9	14	23	...	...	1·5	1·9	...	6·9	5·3	6·5	4·4	25·1	8·9	302	241	543
		Eurasians ...	2,780	2,633	5,413	21	16	37	25	17	42	30	30	60	0·2	...	[illegible]	0·4	...	8·9	6·4	7·7	10·7	11·3	11·0			
	Total ...	Europeans ...	9,952	4,601	14,553	115	50	165	173	76	249	159	171	330	0·1	0·1	2·3	2·5	0·6	17·4	16·5	17·1	15·9	37·1	22·6	5,237	4,587	9,824
		Eurasians ...	13,082	13,344	26,426	187	166	353	269	243	512	329	272	601	0·1	0·7	2·6	2·3	0·1	20·5	18·2	19·3	25·1	20·4	22·7			

Return showing the Births and Deaths registered in the Municipalities of the Madras Presidency during the Year 1879.

Districts.	Municipal Towns.	Population.	Births. Class. Christians.	Mahomedans.	Hindus.	Other Classes.	Total Births. Males.	Females.	Total.	Deaths. Class. Christians.	Mahomedans.	Hindus.	Other Classes.	Total Deaths. Males.	Females.	Total.	Causes of Death. Cholera. M.	Cholera. F.	Small-pox. M.	Small-pox. F.	Fevers. M.	Fevers. F.
Ganjam ...	Chicacole	15,587	1	8	219	...	116	112	228	2	20	312	...	178	156	334	1	3	...	3	67	61
	Berhampore	21,670	5	15	342	...	172	190	362	1	32	599	...	371	261	632	2	1	99	88	48	31
Vizagapatam.	Vizagapatam	32,191	19	62	753	...	446	388	834	37	95	1,367	42	879	662	1,541	41	20	66	40	146	130
	Bimlipatam	8,744	2	3	155	...	97	63	160	6	15	211	...	123	109	232	...	...	1	...	48	43
	Vizianagrum	20,169	...	17	581	...	300	298	598	3	24	670	...	356	341	697	...	...	2	..	299	287
	Ankápalle	13,044	...	1	194	...	92	103	195	...	2	488	...	268	222	490	41	55	24	19	121	83
Godávari ...	Cocanada	17,839	14	16	356	...	198	188	386	14	35	647	...	346	350	696	40	42	1	1	27	16
	Rajahmundry	19,738	8	55	644	...	376	331	707	2	67	718	1	453	335	788	38	35	2	3	95	57
	Ellore	25,487	7	124	543	...	351	323	674	5	138	657	...	416	384	800	84	91	1	...	43	50
Kistna ...	Masulipatam	36,188	5	108	506	...	342	277	619	3	73	456	...	275	257	532	15	27	25	18	56	41
	Guntúr	18,033	10	115	252	...	202	175	377	6	79	256	...	190	151	341	...	...	...	...	35	18
Nellore ...	Nellore	29,922	7	33	229	...	129	140	269	9	37	340	...	230	156	386	...	...	...	..	64	49
	Ongole	7,392	11	26	208	...	128	117	245	7	30	209	...	128	118	246	...	...	2	3	45	32
Madras ...	Madras	397,552	1,239	1,773	13,617	...	8,813	7,816	16,629	1,004	1,680	11,119	...	6,929	6,874	13,803	20	15	432	478	1,663	1,802
Chingleput ...	Conjeeveram	37,327	...	30	946	...	537	439	976	...	18	813	...	426	405	831	...	...	13	16	160	154
South Arcot ...	Cuddalore	40,290	23	24	647	...	357	337	694	14	25	731	...	422	348	770	4	7	10	24	190	159
	Chilambaram	15,519	...	16	393	...	212	197	409	...	15	385	1	215	186	401	...	...	25	19	97	85
Trichinopoly...	Trichinopoly	76,530	197	181	1,134	...	797	715	1,512	194	146	1,233	...	784	789	1,573	1	...	14	12	186	168
	Srínangam	18,655	3	1	319	...	179	144	323	1	1	451	...	241	212	453	1	...	1	1	79	54
Tanjore ...	Tanjore	52,175	108	53	1,230	...	726	665	1,391	53	43	1,040	...	566	570	1,136	...	...	7	6	115	114
	Kumbakónam	44,444	37	28	1,486	...	780	771	1,551	17	22	1,483	...	793	729	1,522	...	...	5	1	120	149
	Máyavaram	21,165	9	9	676	...	360	334	694	12	7	643	...	360	302	662	2	...	17	15	58	53
	Negapatam	48,525	57	291	611	...	502	457	959	51	346	640	...	534	503	1,037	29	25	5	2	129	120
	Mannárgudi	17,703	7	6	523	4	277	263	540	7	4	328	2	164	177	341	1	...	...	...	25	20
Madura ...	Madura	51,987	71	126	1,937	...	1,078	1,056	2,134	43	113	1,743	...	1,008	891	1,899	2	...	41	32	292	288
	Dindigul	12,865	55	43	241	...	179	160	339	36	35	170	...	128	113	241	...	...	1	4	57	50

Return showing the Births and Deaths registered in the Municipalities of the Madras Presidency during the Year 1879—(Continued).

Districts.	Municipal Towns.	Deaths—(*Continued*). Causes of Death—(*Continued*). Bowel-complaints. M.	Bowel-complaints. F.	Injuries. Suicides. M.	Suicides. F.	Wounds. M.	Wounds. F.	Accidents. M.	Accidents. F.	Snake-bite. M.	Snake-bite. F.	Killed by Wild Beasts. M.	Killed by Wild Beasts. F.	All other Causes. M.	All other Causes. F.	Ratio per 1,000 of Population. Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Injuries.	Total Deaths.	Total Births.	Average Ratio of 3 Years ending 1876 per 1,000 of Population. Deaths.	Births.
Ganjam	Chicacole	32	26	...	...	...	...	6	2	...	...	...	...	72	61	0·2	0·1	8·2	3·7	0·5	21·4	14·6	26·8	20·2
	Berhampore	6	5	...	...	...	..	2	1	2	...	1	...	211	140	0·1	8·3	3·6	0·5	0·2	29·1	16·7	20·7	17·1
Vizagapatam	Vizagapatam	135	95	3	9	1	1	3	3	...	...	...	...	484	364	1·8	3·2	8·5	7·1	0·6	47·8	25·9	30·6	31·3
	Bimlipatam	23	20	...	...	...	...	2	...	1	...	...	...	48	46	...	0·1	10·4	4·6	0·3	26·5	18·2	28·8	30·7
	Vizianagrum	11	14	2	...	1	...	4	3	...	...	...	...	37	37	...	0·09	29·0	1·2	0·4	34·5	29·6	31·9	31·1
	Ankápalle	14	14	...	...	...	1	6	4	1	...	...	...	61	46	7·3	3·2	15·6	2·1	0·9	37·5	14·9	...	...
Godávari	Cocanada	46	44	...	1	...	...	9	4	...	...	...	...	223	242	4·5	0·1	2·4	5·0	0·7	39·0	21·6	28·9	29·9
	Rajahmundry	59	39	...	3	1	1	2	1	1	...	...	...	255	196	3·6	0·2	7·7	4·9	0·4	39·9	35·8	20·8	16·4
	Ellore	32	19	1	3	...	...	2	2	2	1	2	...	249	218	6·8	0·03	3·6	2·0	0·5	31·3	26·4	26·2	25·6
Kistna	Masulipatam	9	4	1	...	4	2	10	11	2	1	...	...	153	153	1·1	1·1	2·6	0·3	0·8	14·6	17·1	14·8	18·1
	Guntúr	20	13	1	2	4	2	2	...	1	...	...	...	127	116	...	...	2·9	1·8	0·6	18·8	20·5	18·1	22·4
Nellore	Nellore	48	17	1	1	3	...	1	4	2	...	...	...	111	85	...	...	3·7	2·1	0·4	12·8	8·9	26·7	23·2
	Ongole	2	3	...	...	2	...	6	4	1	...	...	...	71	75	...	0·6	10·4	0·6	1·7	33·5	33·1	...	...
Madras	Madras	875	883	6	9	10	6	56	37	2	1	...	...	3,865	3,643	0·08	2·2	8·7	4·4	0·3	34·7	41·8	37·4	27·9
Chingleput	Conjeeveram	116	129	3	1	3	...	3	1	1	1	...	...	127	103	...	0·7	8·4	6·5	0·3	22·2	26·1	27·4	25·0
South Arcot	Cuddalore	41	21	...	...	...	...	1	2	4	2	...	...	161	144	0·2	0·8	8·6	1·5	0·2	19·1	17·2	21·7	27·8
	Chilambaram	18	15	1	...	...	...	2	1	..	...	...	...	72	66	...	2·8	11·7	2·1	0·2	25·8	26·3	19·1	17·5
Trichinopoly	Trichinopoly	239	203	...	1	1	...	9	10	1	2	...	...	332	394	0·01	[illegible]	4·6	5·7	0·3	20·5	19·7	26·2	24·8
	Srirangam	34	33	...	...	...	...	3	2	...	...	1	...	122	122	0·05	0·1	7·1	3·5	0·3	24·2	17·3	26·3	19·4
Tanjore	Tanjore	136	185	...	2	1	...	4	3	...	1	...	...	303	259	...	0·2	4·3	6·1	0·2	21·7	26·6	29·7	29·8
	Kumbakónam	138	110	1	2	1	2	7	1	1	...	...	...	522	462	...	0·1	6·0	5·5	0·3	34·2	34·8	36·1	32·4
	Máyavaram	64	61	...	...	1	...	2	...	3	1	...	...	213	172	0·09	1·5	5·2	5·9	0·3	31·2	32·7	26·6	29·0
	Negapatam	101	98	...	..	...	...	8	2	3	2	...	...	259	254	1·1	0·1	5·1	4·1	0·3	21·3	19·7	30·2	28·1
	Mannárgudi	20	26	..	...	1	...	2	...	1	2	...	..	114	129	0·5	...	2·5	2·5	0·3	19·2	30·5	27·7	30·7
Madura	Madura	139	104	1	1	3	1	...	5	..	...	..	...	530	460	0·03	1·4	11·1	4·6	0·2	36·5	41·0	48·7	56·7
	Dindigul	18	22	...	.	.	...	...	3	...	..	1	1	51	33	...	0·3	8·3	3·1	0·3	18·7	26·3	18·1	31·7

Return showing the Births and Deaths registered in the Municipalities of the Madras Presidency during the Year 1879—(Continued).

Districts.	Municipal Towns.	Population.	Births. Class. Christians.	Class. Mahomedans.	Class. Hindus.	Class. Other Classes.	Total Births. Males.	Total Births. Females.	Total Births. Total.	Deaths. Class. Christians.	Class. Mahomedans.	Class. Hindus.	Class. Other Classes.	Total Deaths. Males.	Total Deaths. Females.	Total Deaths. Total.	Causes of Death. Cholera. M.	Cholera. F.	Small-pox. M.	Small-pox. F.	Fevers. M.	Fevers. F.
Tinnevelly	Tinnevelly	21,044	4	45	620	...	342	327	669	...	42	759	...	396	405	801	...	...	52	45	52	44
	Palamcottah	17,945	64	56	533	...	334	319	653	30	30	490	...	284	266	550	...	...	13	18	40	33
	Tuticorin	10,565	211	32	260	...	256	247	503	122	26	265	...	232	181	413	...	...	1	1	40	54
Kurnool	Kurnool	25,579	4	254	277	...	278	257	535	8	375	798	...	576	605	1,181	...	...	...	...	294	319
Cuddapah	Cuddapah	16,275	5	183	254	...	237	205	442	15	275	631	...	506	415	921	...	...	...	...	313	249
Bellary	Bellary	51,766	65	314	490	...	420	449	869	83	521	1,695	...	1,162	1,137	2,299	...	...	...	...	341	407
	Adóni	22,723	1	70	169	...	141	99	240	...	274	1,533	...	749	1,058	1,807	...	...	...	...	192	190
	Gooty	6,730	...	10	20	...	20	10	30	...	29	181	...	101	109	210	...	...	...	...	19	19
	Anantapur	4,918	...	24	47	...	44	27	71	1	23	98	...	58	64	122	...	...	...	...	32	34
North Arcot	Vellore	38,022	41	111	598	...	416	334	750	24	86	560	...	322	348	670	...	...	14	14	128	140
	Wálajápet	12,103	1	44	329	...	201	173	374	...	21	351	...	193	179	372	...	...	33	32	40	35
Salem	Salem	50,012	36	91	846	...	515	458	973	47	104	972	...	585	538	1,123	...	...	...	3	242	205
Coimbatore	Coimbatore	35,310	31	21	678	...	384	346	730	19	28	428	...	268	207	475	...	...	1	...	97	70
	Erode	10,201	8	26	120	...	82	72	154	10	20	135	...	90	75	165	...	...	...	...	28	29
	Caroor	9,378	...	6	180	...	94	92	186	...	3	180	...	85	98	183	...	...	...	...	27	39
Nílgiris	Ootacamund	9,982	135	39	158	...	179	153	332	97	44	117	...	136	122	258	...	...	...	...	30	37
	Coonoor	3,058	28	8	41	...	39	38	77	28	11	81	...	64	56	120	...	...	...	...	15	12
South Canara.	Mangalore	29,712	127	52	312	...	259	233	492	132	153	368	2	360	295	655	...	...	...	...	115	64
Malabar	Tellicherry	20,504	31	177	271	1	254	226	480	36	136	276	1	259	190	449	...	...	...	...	59	37
	Calicut	47,962	13	242	470	...	367	357	724	15	328	660	...	553	450	1,003	...	...	64	56	61	28
	Pálghat	30,752	23	161	918	...	580	522	1,102	18	123	927	...	568	500	1,068	..	...	5	4	204	204
	Cochin	13,840	271	47	78	2	210	188	398	348	165	180	...	396	297	693	15	14	100	61	64	47
	Cannanore	31,358	80	182	218	10	248	242	490	63	140	175	5	195	188	383	...	...	...	...	38	36
	Total	1,620,480	3,074	5,359	36,629	17	23,646	21,433	45,079	2,623	6,059	39,569	54	24,921	23,384	48,305	337	335	1,077	1,014	6,736	6,446

Return showing the Births and Deaths registered in the Municipalities of the Madras Presidency during the Year 1879—(Continued).

Districts.	Municipal Towns.	Deaths—(*Continued*). Causes of Death—(*Continued*). Bowel-complaints. M.	Bowel-complaints. F.	Injuries. Suicides. M.	Suicides. F.	Wounds. M.	Wounds. F.	Accidents. M.	Accidents. F.	Snake-bite. M.	Snake-bite. F.	Killed by Wild Beasts. M.	Killed by Wild Beasts. F.	All other Causes. M.	All other Causes. F.	Ratio per 1,000 of Population. Cholera.	Small-pox.	Fevers.	Bowel-complaints.	Injuries.	Total Deaths.	Total Births.	Average Ratio of 3 Years ending 1876 per 1,000 of Population. Deaths.	Births.
Tinnevelly ...	Tinnevelly	68	79	1	4	2	2	3	1	...	...	...	...	218	230	...	4·6	4·5	6·9	0·6	38·0	31·7	42·8	36·6
	Palamcottah ...	54	45	...	2	1	...	...	...	...	...	1	...	175	168	...	1·7	4·0	5·5	0·2	30·6	36·3	34·2	37·8
	Tuticorin	65	59	...	1	...	...	4	...	...	...	...	...	123	65	...	0·1	8·8	11·7	0·4	39·0	47·6	58·9	49·9
Kurnool ...	Kurnool	68	70	2	1	14	9	6	8	1	...	...	...	191	198	...	...	23·9	5·3	1·6	46·1	20·9	33·2	36·2
Cuddapah ...	Cuddapah	12	12	1	2	6	1	...	3	...	...	...	...	174	148	...	...	34·5	1·4	0·8	56·5	27·1	49·6	18·2
Bellary ...	Bellary	107	79	2	13	32	20	12	15	1	1	...	...	667	602	...	...	14·4	3·5	1·8	44·4	16·7	24·6	25·8
	Adóni	275	407	2	...	...	...	4	9	...	1	...	...	276	451	...	...	16·8	30·0	0·7	79·5	10·5	45·5	39·3
	Gooty	28	34	...	...	...	...	...	3	...	...	...	...	54	53	...	...	5·6	9·2	0·4	31·2	4·4	24·3	19·4
	Anantapur	...	...	...	2	3	1	...	1	...	...	...	...	23	26	...	...	13·4	...	1·4	24·8	14·4	23·5	32·2
North Arcot ..	Vellore	30	28	...	1	...	...	2	1	...	...	...	...	148	164	...	0·7	7·0	1·5	0·1	17·6	19·7	36·9	32·5
	Wálajápet	9	5	1	...	...	...	2	2	...	...	...	...	108	105	...	5·3	6·1	1·1	0·4	30·7	30·8	34·4	34·9
Salem ...	Salem	80	70	1	...	1	1	2	3	...	...	...	...	259	256	...	0·05	8·9	2·9	0·1	22·4	19·4	29·4	33·3
Coimbatore ...	Coimbatore	28	19	2	1	...	...	4	2	...	...	...	...	136	115	...	0·02	4·7	1·3	0·2	13·4	20·6	13·7	21·1
	Erode	14	11	...	...	2	1	...	1	...	...	1	...	45	33	...	...	5·5	2·4	0·4	16·1	15·0	22·6	17·7
	Karúr	8	13	...	2	...	...	1	1	...	...	...	...	48	44	...	...	7·0	2·2	0·4	19·5	19·8	22·3	27·5
Nilgiris ...	Ootacamund ...	14	10	...	...	...	...	2	1	...	...	...	...	90	74	...	...	6·7	2·4	0·3	25·8	33·2	30·1	36·9
	Coonoor	24	23	...	...	...	...	1	...	...	...	...	...	24	21	...	...	8·8	15·3	0·3	39·2	25·1	40·1	30·9
South Canara.	Mangalore	60	32	2	1	...	1	11	7	...	...	...	...	172	190	...	...	6·0	3·0	0·7	22·0	16·5	28·7	20·1
Malabar ...	Tellicherry	31	21	...	...	3	1	2	...	...	...	...	...	164	131	...	...	4·6	2·5	0·2	21·8	23·4	29·4	28·9
	Calicut	48	35	1	...	2	...	2	3	...	...	...	..	375	328	..	2·5	1·8	1·9	0·1	20·9	15·0	29·7	22·9
	Pálghat	47	37	1	2	4	2	1	...	3	...	...	...	303	251	...	0·2	13·2	2·7	0·4	34·7	35·8	35·3	35·9
	Cochin	22	12	..	...	...	...	2	1	...	1	...	..	193	161	2·0	11·6	8·0	2·4	0·2	50·0	28·7	26·7	26·3
	Cannanore	7	6	5	...	1	...	1	2	...	...	...	...	143	144	...	..	2·3	0·4	0·2	12·2	15·6	21·6	28·2
	Total ...	3,475	3,310	42	67	108	55	214	170	34	17	7	1	12,882	11,978	0·4	1·2	8·1	4·1	0·4	29·8	27·8	31·3	28·6

GOVERNMENT OF MADRAS.

PUBLIC DEPARTMENT.

ORDER THEREON, 7th October 1880, No. 1491.

The Sanitary Report for the year 1879 is submitted by Dr. Furnell, who succeeded to the office of Sanitary Commissioner early in 1880-81 on the appointment of Dr. Cornish as Surgeon-General with the Government of Madras. The report has therefore been somewhat delayed, as Dr. Furnell has had to make himself acquainted with the year's history of the department and its statistical data.

2. *Rainfall.*—From the meteorological history of the year, recorded in Section 1 of the report, it appears that the rainfall during 1879 was less than in the two preceding years, and that it also fell short of the average of the six years ending 1875 by nearly two inches, but from the circumstance of its having fallen over a larger number of days in twelve out of the twenty districts, Dr. Furnell suggests the probability that it was more equally distributed. Taking the districts in detail, it would appear that in South Canara and in Malabar the south-west monsoon in point of quantity was less in 1879 than in 1878, but the number of days on which it rained exceeded the average. The fall in the Ceded Districts was also less than the average, and in the Northern Circars, excepting the Vizagapatam and Kistna Districts, the same deficiency occurred. The Sanitary Commissioner has apparently lost sight of the direction of Government in paragraph 2 of G.O., 21st October 1879, No. 1537, that an abstract diagraphic table showing the average rainfall in the districts should be inserted in future annual reports.

	Inches.
1879	44·52
1878	51·28
1877	48·03
Average of six years ending 1875.	46·10

3. *Prices of Food Grains.*—The rainfall in 1879, although less than the average of several years, appears to have had a wider distribution judging by its effects on the food supply; for, as regards the staple grains of the country, there was a remarkable fall in prices, and, though they did not reach the average of the six years previous to the famine, there was a very marked tendency in several districts during the latter half of 1879 to return to the normal figure.

Simultaneous with this fall in the price, it is satisfactory to note that a diminished death-rate was also perceptible during the last six months of the year.

4. *Vital Statistics.*—In regard to the method of registration of vital statistics, no changes have taken place, and, though the data obtained may not be as accurate as could be wished, there is on the other hand no reason to suppose that the registration has in any way retrograded. The difficulty now experienced in procuring correct returns of vital statistics from Zemindari Karnams will be remedied when those village officers are made more amenable to Collectors. Legislative measures to effect this object are in contemplation. As an incentive to greater care and accuracy in the preparation of the registers of Government villages, the question of rewarding the village officers was recently considered, and the Government agreed with the Revenue Board in their opinion that "it is not desirable to give rewards for the performance of what after all is a portion of the legitimate duties of a village officer, and that, if Revenue Officers would only exert themselves to secure better results and show the village officials that they are interested in the matter and will not overlook neglect, accuracy will be gradually ensured" (*vide* G.O., 9th September 1880, No. 1735). In connection with this section of the report also, Dr. Furnell has overlooked the instructions contained in paragraph 4 of the order reviewing the last annual report, which directed the insertion in future reports of diagraphic tables of birth and death rates, the latter being distinguished by a red line.

The annual registered birth-rate to the population was 16·4 against 11·9 of the year previous, and Dr. Furnell rightly regards this rate, which is doubtless much below the truth, as satisfactory indication of recovery in the fecundity of the people. Only in the Ceded Districts and Nellore have the births been noticed to keep much below the normal average, and there is no doubt that this is attributable to the severity of the late famine in those parts and to its effects having lasted the longest there. The remarks on the seasonal curve in the birth-rate are interesting. The Government regret to observe that in certain districts (not specified) attention had to be called to the persistent low returns of births, and that from special inquiry instituted in selected villages it was found that registration was perfunctorily performed, and that many births and deaths had been omitted from the village lists. This matter should receive the Board's early attention, and Collectors be again reminded of the importance of securing greater accuracy in the village returns.

The proportion of male to female births was as 106·5 to 100, while the death ratio was 106·7 males to 100 females. It is noticeable from the figures marginally recorded that in this latter particular the disproportion shown as existing in previous years has disappeared. The Government also observe with the greatest satisfaction that the general death-rate, 18·9 per mille, was not only considerably lower than in the two preceding years, but that it had fallen to very nearly the average rate of 18·1, and that the total number of deaths registered in 1879 was lower than that of any year since 1874. These facts are a clear indication that the late abnormal influences affecting vitality had nearly passed away. The death-rate in towns still stands higher than that among the rural population, and is no doubt due to greater accuracy in registration in towns. The table showing the mortality in each month bears out the views that the seasons of mortality are connected with a fall in the temperature and the prevalence of cold and damp. The disparity in the death-rate between "Native Christians" and "Hindus" noticeable in 1878, and to which attention was drawn, appears not to have been so great last year. Dr. Furnell suspects that in the registration of deaths a distinction is not carefully observed between "Native Christians" and "Hindus." He points as instances to the returns from Ganjam and Madura, where Christian communities exist, not containing a single entry of the death of a Native Christian. The returns from these two districts are reported to be always very imperfect. The Board of Revenue will be desired to take particular notice of this matter. The number of deaths among infants and children was very much less than in any of the previous six years, but it is feared that the excessive mortality of the young in the famine period has considerably reduced the numbers of the non-adult population. The approaching Census will prove the correctness or otherwise of this surmise.

	Males.	Females.
1877	122·6	100
1878	110·9	
1879	106·7	
1877		53·2
1878		27·8

	Native Christians per Mille.	Hindus per Mille.
1878	21·0	28·3
1879	16·8	19·1

5. *Epidemics.*—The year was characterized by comparative immunity from epidemics of cholera and small-pox. The deaths from cholera were most numerous in the Godávari District, but, as only four deaths were entered for the whole Presidency in the December returns, the year 1879 may be taken to have closed with complete freedom from this disease; and, considering the immunity from the pestilence so far this year, it is highly probable, as Dr. Furnell remarks, that "the year 1880 may be marked as one of almost complete absence of cholera."

The figures given for 1879 show a very considerable decline as compared with the previous eight years in mortality from small-pox. With the exception of four districts and the town of Madras, the disease was much less prevalent than usual. The deaths among males was again in 1879 considerably in excess of those among females (9,585 to 8,255), though vaccination is shown to have been more largely practised in all the districts on the former sex (*vide* Appendix I, p. 4). The Sanitary Commissioner has not offered any explanation, as requested in paragraph 6 of G.O., 21st October 1879, No. 1537, in regard to this anomalous result. The village authorities often do

not distinguish between "Measles" and "Small-pox" in registering the cause of death. It must be left to the Vaccine Establishment to point out the difference to them. The Government note that the endeavour to obtain the ages of those registered as dying of small-pox was not attended with satisfactory results. In the Madras Town, where the figures are collected with care, the largest death-rate is found among infants and young children illustrating the necessity for vaccination at an early age. The Board's attention will be drawn to the inadequate provision which Dr. Furnell points out is made for vaccination in Malabar, a district which is stated to be notorious for the prevalence and severity of its small-pox epidemics. The Government note the Sanitary Commissioner's solicitude to see re-vaccination practised in the Government Schools in Malabar and generally throughout the district.

The total number of vaccinations performed was 469,744, a figure less by 52,016 than that of the year previous, which cannot be considered satisfactory. Looking at the numbers vaccinated in each district, Dr. Furnell draws attention to the unprecedented increase (22,836) appearing in Tanjore, a circumstance which must be due to the great interest evinced in the matter by the Collector Mr. Webster. This success, when compared with the very opposite results appearing in the returns for the Coimbatore, Godávari, Kistna, North Arcot, and Salem Districts, shows what can be achieved by stimulating the Vaccine agency of a district. The percentage of successful vaccinations was 88·11 against 85·51 in 1878. The suggestion of Dr. Laing, the Inspector of Vaccination, whose report is complete, to replace the present staff of Deputy Inspectors as vacancies occur by professional men drawn from the class of Hospital Assistants, will be referred to the Surgeon-General for consideration.

The largest proportion of deaths is ascribed to fever, which was more than usually prevalent in 1879. A severe outbreak of it in some villages of the Chingleput District was investigated by the Zillah Surgeon and it was reported to be decidedly malarious, but the causes have not been satisfactorily ascertained.

The deaths from violence were fewer than in the two preceding years. It is matter for remark that the mortality by injuries nearly equalled that by cholera.

6. *Jails.*—The health in jails compared favorably with the two previous years, but the death-rate at 55·8 per mille was still very high. In the Bellary Jail there was a peculiar outbreak of ulcer which is described in the report.

7. *Army.*—In regard to the Army, 1879 seems to have been even a more sickly season than 1878, the admissions into hospitals being larger both in regard to the European and Native sections of the Army. The increase in the sickness of the latter is partly attributed to their employment in the unhealthy Rampa District. The mortality among Europeans was however less than, and among Natives a very little in excess of, that of the previous year.

8. The sanitary works carried out in the various Municipalities show progress, but it is evident that a great deal still remains to be done in the way of really effective sanitation.

(True Extract.)

J. A. DAVIES,
Acting Under Secy. to Govt.

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