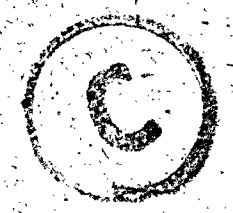


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REPORT ON VACCINATION
IN
THE MADRAS PRESIDENCY
AND
THE WORK
OF THE
KING INSTITUTE OF PREVENTIVE MEDICINE
MADRAS
FOR THE YEAR
1904-1905

DIGITIZED





REPORT ON VACCINATION

IN

THE MADRAS PRESIDENCY

AND

THE WORK

OF THE

KING INSTITUTE OF PREVENTIVE MEDICINE,
MADRAS,

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SANITARY COMMISSIONER,
CAMP, COONOR, 20th July 1905.

No. $\frac{1180}{V}$.

From

LIEUT.-COLONEL W. G. KING, C.I.E., I.M.S.,
Sanitary Commissioner for Madras,

To

THE SECRETARY TO GOVERNMENT,
LOCAL AND MUNICIPAL DEPARTMENT.

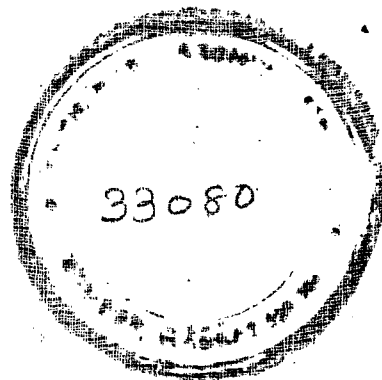
SIR,

I have the honour to forward herewith the Report on Vaccination in this Presidency during 1904-1905, and on the working of the King Institute of Preventive Medicine. The former is written by Captain F. F. Elwes, I.M.S., Acting Inspector of Vaccination and Deputy Sanitary Commissioner, and the latter by Lieutenant S. R. Christophers, I.M.S., Superintendent of the Institute. I regret it was not possible to submit them on the correct date. This was owing to the fact that, by a misunderstanding, it was not originally intended to show the cost of vaccine. To rectify the omission, the figures of the Report were re-cast.

2. In regard to the Vaccination Report, the chief interest centres in the fact that, for the first time, the vaccinators have been supplied with preserved animal vaccine from the Vaccine Section of the King Institute. Two results are obvious: firstly, the increased outturn, namely, 90,502 successful cases in excess of the previous year and, secondly, the decreased cost of each successful case. The first is brought about by opportunities of securing vaccine being practically unlimited, as any required amount can be always sent to a vaccinator in excess of his average requirements, at the shortest notice; the second is due to the economy with which, under normal circumstances, a large production of vaccine can be secured by a single skilled staff employed at a definite point, as compared with the use of numerous petty depots scattered throughout the Presidency. There has thus been effected, at the rate of 2 pies for each successful case, a total saving of Rs. 12,444. This diminished expenditure on the part of local bodies should go well towards their contribution for the year, on account of the prime cost of the buildings of the Vaccine Section of the Institute.

3. There is however a reverse side of the picture. In Municipalities the primary vaccination success rate has decreased from 97.0 to 94.0 per cent. and Local Fund areas from 91.0 to 86.9 per cent. Roughly judged, this would seem clear proof that the preserved vaccine supplied has been of less efficacy than the mixed methods of calf-to-arm vaccine, locally made glycerinized vaccine, locally made lanoline-vaccine, and even the use of scabs as hitherto practised.

4. To arrive at a clear judgment in this matter, it is necessary to remember that the districts were not all supplied from the commencement of the year, but that they were taken up gradually as their own contracts or other arrangements fell through, or, as, by gradual expansion, the Institute was able to meet their demands. Indeed, Tanjore was not supplied till the 1st of April 1905—the inclusion of this district making the supply for the whole Presidency complete. It will be therefore understood that the total percentage includes the results for 123,394 which were vaccinated with “locally made glycerinized lymph” which gave a percentage of only 84.8 per cent. Again, to bring together the necessary staff, to render each individual acquainted with his duties and understand how essential



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strict obedience and attention to the most minute details was requisite for success, demanded both time, patience, and the experience acquired by mishaps. Holding this in mind, it is conceded that during the first few months the vaccine issued although of good virulence was not diffused in the lanoline medium employed with that skill which was requisite, and this was largely due to trusting to machinery which was ultimately abandoned. Further, certain floors of the buildings for accommodation of calves were found to be of undesirable material, and temporary makeshifts, and many contingencies arising therefrom, causing great anxiety and trouble in the process of cultivation, had to be encountered. It is needless for me to enlarge on such matters; but I ask it to be remembered that in the management of so large a concern both the financial and professional responsibility is heavy, and that the tax upon the attention of the Superintendent who has to attend to details both in the Bacteriological and Vaccine Sections is constant. I foresaw this in my forecast of the staff, and particularly urged that as a Commissioned Medical Officer could not be afforded, the Deputy Superintendent should be of the class of an Uncovenanted Medical Officer who had undergone a European training. I remain of the opinion then expressed, after seeing the work attempted by an Assistant-Surgeon from the Civil as well as from the Military Branch of the Subordinate Medical Department. What is required is the class of men with sufficient independence and initiative to be trusted with the administration of a large lunatic asylum or jail, together with a keen appreciation of the endless matters of professional interest that are encountered in the careful cultivation and preservation of vaccine.

5. If, however, difficulties were at first encountered they were ultimately overcome by Lieutenant Christophers' keen appreciation of details and determination, so that it may be safely said that of nine months out of the twelve vaccine excellent in virulence, in bacterial purity, and in preservation, was issued to vaccinators. But, in this Presidency, the task of successful vaccination by no means ends with the issue of good vaccine. As stated above, various methods had been formerly employed so that many of the vaccinators had never in their lives seen preserved vaccine, whilst others had never had experience of material of the consistency of lanoline-vaccine. Thus, during my tours, I have found not only vaccinators but at least one Deputy Inspector of Vaccination employing grossly incorrect methods for its utilization. In spite of the most explicit instructions that the vaccine should be carried solely in a specially constructed carrier, vaccinators have repeatedly personally exhibited to me the vaccine carried in the postal despatch box in their pockets—so exposed to sun that the whole tube was hot when touched. To get over such difficulties, I have recently asked permission of Government to depute a trained Deputy Inspector of Vaccination for instruction of the less intelligent vaccinators. Nor do possible flaws end here. For the purpose of checking the character of the vaccine issued, I requested that each vaccinator should send to the Institute every fortnight results of the special issue of vaccine received. The purpose thus served is referred to by the Superintendent in paragraph 5 of his Report. But as time passed, it became evident that I had touched a tender spot in the conduct of vaccination in this Presidency. The average vaccinator did not appreciate being compelled to show what work he did within the fortnight. It is true he was supposed hitherto to furnish weekly Returns to the Deputy Inspectors of Vaccination; but the week often extended to months. He would have infinitely preferred to have received his second supply of vaccine and finish the minimum cases required before the end of the month. Indeed, this fortnightly return seems to me to have struck at the possibility of fraud being committed in a manner that is much disliked by the vaccinators, because they know results are regularly registered and checked in the Institute, and the notice of Deputy Inspectors of Vaccination is required to defects. It took me sometime to realize why these returns were not received regularly, but I have lately appealed to Presidents of District Boards for aid in this matter, and I am glad to say that I have been well supported by them, and that I look forward to much improved punctuality.

6. But if ignorant and careless vaccinators have had to be dealt with, what proof is there that good vaccine was issued to them? Of this, I think ample proof is brought forward by the Superintendent of the Institute in the Tables furnished

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at pages 6 and 7 of his Report, where it is shown that vaccine which has been issued to vaccinators and therefore had passed through all the exigencies of exposure to tropical heat during transport in rural posts, gave successful results from 164 to 383 days in the hands of the staff, although the vaccine after receipt had been kept at room temperature in Madras (Guindy) up to date of the experiment. In judging results, it is worth remembering that although dealing with a tropical climate the Institute makes its issue of vaccine only once a fortnight to the vaccinators, whilst, in the temperate climate of England, the Local Government Board think so little of the power of glycerine to preserve vaccine at ordinary temperature, that it demands that every tube not used by public vaccinators within seven days of its issue shall be returned by them. In connection with the efficacy of lanoline in withstanding the influence of a tropical climate, I may state that Colonel Benson, I.M.S., has informed me of the successful production of five vesicles on a human being and one vesicle in a calf, with a specimen that had been made in the Mysore Government Institute as far back as 1901. As soon as vaccinators have been properly trained therefore and discipline in districts as to use of the vaccine is enforced, I see no reason to doubt that the rate of success as well as the financial cost will show improvement. This is sufficiently shown by Captain Elwes's paragraph 13, which proves that the rate has differed with districts or, in other words, with the experience of use of lanoline vaccine. That this is an important factor, I showed clearly in my experimental issue in 1890-1891 when the total rate of success rose right through the hot weather from 92.96 per cent. in the first Quarter to 93.96 in the second and 96.04 in the third.

7. The question of elimination of "extraneous organisms" has not been lost sight of, although I am by no means disposed to regard the subject with the extravagant zeal exhibited by certain European authorities. It has been shown by Dr. Srinivasa Rao, Bacteriologist to the Mysore Government, that lanoline has a distinct inimical influence upon such organisms, although this has been contested by other bacteriologists. But the whole subject, as stated by the Superintendent, in his paragraph 13, will be thoroughly threshed out. Certainly, the principles adopted in the Institute of attempting in all matters high bacterial cleanliness seems to me what should be the leading feature both in the cultivation and preservation of vaccine. In this connection, I may point to a simple experiment conducted by Lieutenant Christophers at my request as to results of using a loopful of sterile water and glycerine mixture (the usual 50 per cent. employed for preservation) on the arm in six mock vaccination operations. Full precautions were taken as to preliminary cleansing of the arm. Yet, from the small portions recovered in each case there were grown from 32 colonies to 21,300 colonies of microbes. When it is remembered that in the elimination of "extraneous organisms" it is not anticipated that the spore-bearing will be destroyed, the whole process seems me to require considerably less enthusiasm and better elucidation of its actual merits. In this connection, I may state that the Institute offered each district the choice of glycerine or lanoline and that, without exception, they chose lanoline. There is however no intention of limiting the production to any form. Local authorities are at liberty to obtain their vaccine preserved by any recognized method.

8. The matter of better organization of the Vaccination Department which I hoped would have been decided by this time is still under consideration by Government—doubtless in reference to representations as to details by local authorities.

9. In regard to the working of the Bacteriological Section of the Institute, I think it unnecessary to add anything to that written by Lieutenant Christophers. Considering the short time this Section has been in working order, the results secured reflect upon him the highest credit. Not only has he effected advance in general scientific research, but he has made this Section of vast utility to Medical officers throughout the Presidency in aiding correct diagnosis and consequent treatment of their patients, as well as affording material help to Public Health administration. There exists a vast field for scientific research in this Section, the fruits of which would tend to alleviate human suffering in the near future, and I trust that, as time advances, Government will see its way to increasing the permanent scientific staff at disposal.

10. It is a matter for regret that it has not yet been possible, owing to certain questions as to equipment being still before Government, to open the Serum Section for which suitable buildings are already in existence, but it is hoped the next Report will bear evidence of advance in this respect.

11. In the matter of education, the Institute is also fulfilling useful functions. Sanitary Assistants to District Medical and Sanitary Officers are, at the time of my writing, received for instruction in practical bacteriology. They will especially be taught to apply themselves to the elucidation of causes of disease, and to exhibit discretion in the direction of personal research and the supply of material for investigation by the Superintendent.

12. During the year, 49 candidates who had already qualified as Certificated Sanitary Inspectors underwent a five months' course in Minor Sanitary Engineering under Mr. Hormusji Nowroji, A.M.I.C.E. Of these 35 passed the qualifying examination. These candidates also received, as a voluntary matter, instruction from Lieutenant Christophers in certain bacteriological details and the methods of making blood films, packing of specimens and the like.

13. Accommodation has been furnished to Assistant Surgeon Pinto, who is about to conduct physiological experiments as to snake venom. Two private practitioners and one Commissioned Medical Officer have availed themselves of the Bacteriological Laboratory set apart for the use of qualified applicants, but it is hoped more will in future utilize it. It is obvious that in this Institute young Medical Officers on first joining the service would find excellent opportunities for research, and whilst thus gaining knowledge would form a valuable aid to the Superintendent in undertaking definite branches of research under his guidance.

14. I have much exceeded the limits of an ordinary covering letter to a Report, but I trust Government will find an excuse for this fact in that it is desirable to at least afford explanation on certain points—more especially in regard to vaccination.

I have the honour to be,

Sir,

Your most obedient servant,

W. G. KING, Lieut.-Col., I.M.S.,
Sanitary Commissioner for Madras.

REPORT ON VACCINATION IN THE MADRAS PRESIDENCY FOR THE YEAR 1904-1905.

From Captain F. F. ELWES, M.B., I.M.S., Acting Inspector of Vaccination and Deputy Sanitary Commissioner for Madras, to the Sanitary Commissioner for Madras, dated 4th July 1905, No. 1041-V.

I have the honour to submit the annual report on vaccination in the Madras Presidency for 1904-1905 which includes a review of the past three years.

2. The post of Inspector of Vaccination and Deputy Sanitary Commissioner, in conjunction with the Professorship of Hygiene and Bacteriology at the Medical College, was held by Captain J. W. Cornwall, I.M.S., from April 1st to July 31st and by Lieutenant S. R. Christophers, I.M.S., in addition to his duties as Superintendent of the King Institute of Preventive Medicine from August 1st to October 5th, Lieutenant T. Harley, I.M.S., acted as Inspector of Vaccination and Deputy Sanitary Commissioner from October 6th to December 11th, whilst the post of Inspector of Vaccination and Deputy Sanitary Commissioner again combined with the Professorship of Hygiene and Bacteriology at the Medical College has been held by me from December 12th, 1904, to March 31st, 1905.

3. The following statement shows the strength of establishment employed during the last three years with the pay of each post:—

Years.	First-class Deputy Inspectors, Rs. 70-60.	Second-class Deputy Inspectors, Rs. 40.	First-class Vaccinators, Rs. 20-15.	Second-class Vaccinators, Rs. 12-10.	Probationers, Rs. 7-5.	Total number of Vaccinators.
1902-1903	33	* 30	274	433	142	849
1903-1904	33	* 31	275	437	156	898
1904-1905	33	* 32	284	445	144	873

* Includes four Assistant Deputy Inspectors employed by the Madras Municipality.

4. (a) During the year under review the three districts of Gódvári, Kistna and Nellore were re-distributed into four districts and the district of Guntúr has been newly formed. The ranges of the Deputy Inspectors of Vaccination have consequently been rearranged without adding to the strength of Deputy Inspectors.

(b) By the constitution of a new second-class range (Tirumangalam) in the Madura district, Dindigul has been changed to a second-class and Madura to a first-class range.

(c) Under G.O., No. 486, Financial, dated 1st August 1904, communicated in G.O., No. 953-L., dated 9th August 1904, the pay of Deputy Inspectors of Vaccination are debited to Provincial funds from 1st April 1904.

5. The following table shows the total vaccination work done by all agencies throughout the Presidency:—

	1902-1903.	1903-1904.	1904-1905.
Primary and secondary vaccinations	1,250,762	1,240,655	1,406,989
Re-vaccinations	81,447	69,330	76,280
Total ..	1,332,209	1,309,985	1,483,269

6. The districts which show the largest increase are Malabar (26,818), Madura (18,825), Trichinopoly (15,862), Tinnevely (15,776), Kistna (12,441), Ganjam (10,091), Cuddapah (9,865), Guntur (9,674), Vizagapatam (7,670), Nellore (7,383), Kurnool (5,445), South Arcot (5,296), North Arcot (4,371), Bellary (3,696), Coimbatore (2,134), South Canara (1,675), and Anantapur (1,627). The increase is due to (1) the ample supply of lanoline paste from the King Institute of Preventive Medicine, (2) the raising of the minimum of second and third-class vaccinators to that of first-class vaccinators as per G.O., No. 185-M., dated 29th January 1904, and (3) the exertion of vaccinators lest they should lose their appointments. Three districts show a decrease, viz., Salem (2,038), Gódvári (1,530) and Tanjore (1,136).

The explanations of decrease offered by the Deputy Inspectors of these three districts are given below :—

Salem.—Outbreak of plague, absence of vaccinators without substitutes, absence of small-pox.

Gódvári.—Diminished prevalence of small-pox compared with the previous year, inferior quality of the glycerinized lymph supplied during April to July 1904, absence of vaccinators without substitute.

Tanjore.—Non-entertainment of temporary vaccinators unlike the previous year, absence of vaccinators without substitute.

7. The subjoined table shows the total successful vaccinations by all agencies and the percentage of successful cases including revaccination :—

Establishment.	Number of successful vaccinations.						Total of successful vaccinations.		
	1902-1903.		1903-1904.		1904-1905.				
	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.	1902-1903.	1903-1904.	1904-1905.
1	2	3	4	5	6	7	8	9	10
Local Fund vaccinators	965,693	25,137	949,554	19,578	1,039,323	18,410	990,830	969,233	1,058,339
Government do.	22,346	1,473	25,469	2,621	24,797	1,631	23,519	23,090	26,428
Zamindari do.	8,704	300	9,423	266	10,385	504	9,301	10,059	10,889
Municipal do.	101,593	19,302	105,238	15,371	103,242	21,915	120,895	120,929	125,157
Cantonment do.	5,100	874	4,813	728	4,602	644	5,074	5,541	5,246
Dispensaries	8,346	3,056	7,563	2,283	7,014	2,236	11,409	9,846	9,250
Medical subordinates	2,354	5,982	1,660	6,557	1,894	5,574	8,336	8,617	7,408
Total	1,114,136	56,124	1,104,440	47,805	1,191,803	50,914	1,170,260	1,152,245	1,212,717

Establishment—cont.	Ratio per cent. of successful cases.						Ratio per cent. of total successful cases.		
	1902-1903.		1903-1904.		1904-1905.				
	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.	1902-1903.	1903-1904.	1904-1905.
11	12	13	14	15	16	17	18	19	20
Local Fund vaccinators	91.2	76.2	91.0	76.8	86.9	74.0	90.8	90.7	86.6
Government do.	88.4	91.3	90.9	95.0	86.0	81.1	88.6	91.1	85.6
Zamindari do.	84.6	96.0	88.0	100.0	79.0	83.4	85.0	88.3	79.2
Municipal do.	87.1	77.0	97.0	76.4	94.0	75.0	93.2	93.8	90.0
Cantonment do.	96.4	58.2	96.6	61.4	95.8	52.0	87.0	89.9	86.8
Dispensaries	88.0	76.9	89.9	70.9	83.1	72.5	84.8	84.6	80.3
Medical subordinates	79.6	73.7	78.1	79.3	83.1	76.5	75.3	79.0	78.1
Total	91.6	76.3	91.5	77.3	87.4	74.5	90.7	90.8	86.8

Note.—The statistics given in this statement include those exhibited in statements I and III appended to this report.

The fall in the percentage of success during the year under review is counted for in paragraph 13.

8. The following districts show the largest increase in infantile vaccination as compared with the previous year: Kurnool (10.9), Nellore (10.0), Cuddapah (9.0), Bellary (9.6), Ganjam (8.5), Nilgiris (8.0) and Tinnevely (6.4). The reason is accounted for by (1) the introduction of compulsory vaccination, (2) rect maintenance of unprotected lists, and (3) granting of rewards. The districts showing decrease are Coimbatore (5.3), South Arcot (5.3) and Vizagapatam (1.8). The reasons for the decrease are (1) prevalence of plague, (2) careless idling of lanoline paste by vaccinators who have not received sufficient training (3) unwillingness of people to get their children vaccinated.

9. As regards municipalities, 33 towns secured a ratio of 75 per cent. and wards against 41 in the previous year. The towns showing the largest increase are Cannanore (17.6), Coimbatore (16.6), Conjeevaram (16.0), Chidambaram (12.7), Anantapur (10.7) and Coonoor (10.3).

10. The following table shows the cost of the various establishments and the cost of each successful case :—

Establishment.	Total expenditure.			Average cost of each successful case.		
	1902-1903.		1903-1904.	1902-1903.		1903-1904.
	Rs.	A.	P.	Rs.	A.	P.
Government establishment	7,319	4	3	8,417	2	9
Local Fund do.	2,05,595	2	5	2,10,827	15	0
Municipal do.	31,305	11	1	32,241	6	0
Zamindari do.	2,239	3	11	2,185	5	1
Cantonment do.	2,298	13	0	2,204	4	4
Total	2,49,358	2	8	2,55,976	1	2

* Exclusive of the pay and allowance of the Inspector of Vaccination and Deputy Sanitary Commissioner.

11. 145,153 operations were performed in the municipalities during this year against 133,701 cases in the previous year. The following towns show a marked increase: Bellary (1,325), Mangalore (439), Cuddalore (393), Salem (330) and Pondicherry (319). The decrease is attributed to plague and to the diminished number of cases available for vaccination.

The municipalities which showed an increase are Madras (8,675), Calicut (3,541), Ellore (936), Madura (776), Ootacamund (716), Trichinopoly (569), Pondicherry (440), Tellicherry (233), Cannanore (231) and Nogatapatam (213).

12. During the year, compulsory vaccination has been introduced into several municipalities. There has been a satisfactory increase in the number of cases vaccinated in some of the unions, in which compulsory vaccination has existed for a year or more, but in others there has been little or no increase in the numbers vaccinated. The term "compulsory" can, however, scarcely be legitimately applied in some cases owing to the extreme leniency of the Magistracy. Ineffective registration of births and careless maintenance of "unprotected lists" are also frequent obstacles to the efficient working of this system. On the whole, it would appear that compulsory vaccination, when enforced and combined with efficient maintenance of registers, results in a satisfactory increase in the number of cases vaccinated.

13. The percentage of success obtained by the use of different kinds of lymph in primary and secondary vaccinations (re-vaccination omitted) is compared in the following table :—

Number of cases excluding unknown.	Area.	Method.	Whence obtained.	Percentage of success.
*29,882 11,651	Local Funds Do.	Calf-to-arm ... Animal lymph in tubes and plates.	Locally ... Transferred from calves for transport for short distances or economical reasons by practice of dilution.	93.7 95.8
*123,394 1,058,967	Do. Do.	Glycerinated lymph ... Lanoline lymph ...	Locally prepared in different centres. Supplied by the King Institute of Preventive Medicine.	84.8 86.6
11,385	Do.	Do. ...	Supplied by the Bangalore Institute.	88.5
*27,463	Do.	Do. ...	Locally prepared in different centres.	95.6
61,779	Municipalities	Do. ...	Supplied by the King Institute of Preventive Medicine.	91.3
2,839	Do.	Do. ...	Supplied by the Bangalore Institute.	88.4
*6,262 *12,677	Do. Do.	Do. Glycerinated lymph ...	Locally prepared ... Do. ...	94.4 97.4

* Includes cases in Madras City.

The percentage of success with the lanoline paste supplied by the King Institute of Preventive Medicine is 86.6 in Local Fund and 91.3 in Municipal areas. From the following table it will be observed that 99.1 per cent. successes were secured in the Nilgiris and 97.4 per cent. in Malabar. As the results range from 78.4 to 99.1, the low percentage of successes cannot be attributed to the inferiority of the paste but to the careless handling, and want of skill on the part of the vaccinators when the lanoline paste, to which they were unaccustomed, was first introduced :—

Statement showing the percentage of success in Primary and Secondary Vaccinations with lanoline paste from the King Institute of Preventive Medicine.

Districts.	Percent- age.	Districts.	Percent- age.
Nilgiris ...	99.1	Trichinopoly ...	86.4
Malabar ...	97.4	Anantapur ...	85.1
Bellary ...	94.2	Kistna ...	81.2
Madura ...	92.9	Guntur ...	83.5
North Arcot ...	91.9	Nellore ...	83.0
Ganjam ...	90.6	South Arcot ...	80.5
Kurnool ...	90.3	Vizagapatam ...	79.4
Chingleput ...	90.1	Coimbatore ...	78.5
Cuddapah ...	89.7	Godavari ...	78.4
South Canara ...	88.4		
Tinnevely ...	86.7	Total ...	86.6
Salem ...	86.4		

14. 9,971 deaths occurred from small-pox against 13,003 last year.

15. The diagrams showing the proportion of population protected in the districts and municipalities are attached hereto.

16. The Deputy Inspectors of Vaccination of the following ranges failed to verify 50 per cent. of the cases vaccinated in their ranges: Bellary (42.1), East Coimbatore (39.0), Madras (47.2), Dindigul (44.0), Madura (46.4), Paramagudi (36.3), Tellicherry (45.7), Calicut (29.4), Cuddalore (30.5), Jeypore (43.4), Vizagapatam (36.5) and Vizianagram (44.5).

Their explanations for short verification appear to be satisfactory. Except in the case of the Deputy Inspectors of East Coimbatore and Calicut, whose explanations have been called for but have not as yet been received, action will be taken on receipt of the explanations.

17. The total number of Deputy Inspectors of Vaccination rose from 59 to 60 this year, as an additional Deputy Inspector has been appointed to the Madura district. Of these 34 are certificated sanitary inspectors. Four Deputy Inspectors retired, one was suspended, and nineteen were fined for carelessness.

18. During the year the vaccination work in fourteen municipal towns and in the Trichinopoly Range was inspected, but it is impossible for the Inspector of Vaccination to tour during nine months of the year, for his duties as Professor of Hygiene and Bacteriology at the Medical College necessitate his remaining in Madras during the College sessions.

19. The service books of all Deputy Inspectors of Vaccination have been brought up to date.

I have the honour to be,

Sir,

Your most obedient servant,

F. F. ELWES, Captain, I.M.S.,

*Ag. Inspector of Vaccination and Dy. Sanitary
Commissioner for Madras.*

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ANNUAL REPORT ON THE WORK OF THE KING INSTITUTE OF
PREVENTIVE MEDICINE FOR THE YEAR ENDING
31ST MARCH 1905.

THE VACCINE SECTION.

1. The total amount of vaccine despatched during the year has been 1,478,448 cases. Of this amount 1,308,035 cases were supplied to the various districts of the Madras Presidency. For various reasons, it was not found possible to take up from the beginning all the districts, which it was intended the Institute should eventually supply. A great deal had to be done in training the staff in work, with which most of them were imperfectly, if at all, acquainted. After a start was made, difficulties arose on account of the necessity, on technical grounds, of relaying the floors of certain of the sheds with stone instead of cement. It was necessary, also, to arrange for the abolition of local vaccine depots, whilst at the same time the certainty of the new supply was assured. Anantapur, South Canara, Nilgiris, Kurnool, Nellore, Bellary, Ganjam, Ganjam Hill Tracts, Madura, Trichinopoly, Salem, Coimbatore, Kistna, Tinnevely, and Vizagapatam, were however all taken up by 16th April. North and South Arcot by the 21st June. Gódvári, Chingleput, Cuddapah and Malabar by the 5th August. The only district not supplied in the current year was Tanjore. In this case every endeavour was made to start the supply of vaccine within the current year, but arrangements as regards the abolition of the local depot prevented this being carried out before April 1905.

2. In addition to vaccine supplied to the districts, in accordance with the regular supply stipulated upon, 104,918 cases were sent in answer to extra indents from vaccinators, 91,990 to different municipalities, 71,152 to Government officers including Agency vaccinators, Jails and Police, 1,063 to the Military Department, and 6,208 cases to various private persons.

3. When in the later months all these districts were supplied, the output of vaccine was at the rate of over a million and-a-half cases per annum, or practically double that of the National Vaccine Institution, hitherto the largest Institution of the kind in the world, which in 1902-1903 manufactured 800,100 cases.

4. The total net cost of production, including establishment charges and repairs of buildings, was Rs. 31,945-5-2, and the cost per case 4.1661 pies. Table I, appended, shows details of expenditure for the year. The vehicle used for the preservation of the vaccine pulp was left to the choice of the districts, who have unanimously chosen Lanoline Vaccine Paste on account of its excellent keeping qualities in the tropics, as compared with Glycerinated Lymph. Table II, appended, shows the result of a number of successful inoculations on the calf of pastes returned from the vaccinators, which had been subjected to the usual exigencies of rural postal transit, and which had been retained at room temperature in the Institute for variable and considerable periods.

The amount of paste allowed per case was 25 millegrammes, but owing to the representations of some of the vaccinators, supported by certain of the District Medical and Sanitary officers, the amount was increased to 27 millegrammes. This latter quantity has been found, by experiment, and by the general experience of the vaccinators, to be sufficient.

5. In order that the Institute should be kept informed as to the result of vaccination in the case of the different issues of paste, vaccinators were requested through the Presidents of the District Boards to submit fortnightly statements, showing the result derived from each supply of paste. These returns, though incomplete, have served to gauge the general success of the paste. In the early months of the year very bad results were obtained. This was partly due to certain

difficulties in manufacture, and it is believed to the use of a machine for mixing the pulp. By means of the records it was, however, evident that the results were largely due to carelessness, or want of skill, on the part of certain vaccinators, as was shown by comparing their work with that of better class vaccinators who gave, with the same paste, steady good returns. As a rule, also, good and often excellent results were obtained from the inoculation of calves with pastes returned from the vaccinators, although these, by the time they had reached the Institute, had undergone the extra exposure resulting from the double journey. Table III, appended, gives the results of the inoculation on the calf of returned pastes made during the year. Several specific complaints as to the quality of the paste were received, notably from Tinnevely. These complaints referred especially to the paste supplied in the early months of the year, and are accounted for by the factors mentioned. With increased attention to manufacture, and by notifying to the District Medical and Sanitary officers glaring cases of carelessness, on the part of vaccinators, the percentage of success rose very considerably and maintained the higher rate through the year. Table IV, appended, gives the percentage of success as shown by results returned to the Institute during the current year. Table V shows the high percentage which was obtained in the district of Malabar, where the vaccinators were well accustomed to the form of vaccine issued.

In referring to certain difficulties which have been encountered, it may be remarked that, although there are obvious and very great advantages accruing from the production of vaccine in a large central institution, where its purity and character can be maintained under expert supervision, there are also many difficulties peculiar to manufacture, on the scale and under the pressure, necessarily maintained in such a case. The difficulty of procuring the necessarily large number of suitable animals, the degree of supervision necessitated in keeping these in the requisite condition of fitness, above all the continuous work of the Section, which cannot for obvious reasons be relaxed for a single day or night, and the maintenance of a multiplicity of technical details, inattention to which inevitably results in speedy disaster, require from the staff an exceptional amount of unremitting attention. It is not surprising, therefore, that one of the greatest difficulties has been to obtain men at the same time efficient and capable of bearing the strain. Particularly difficult has been the procuring of a Deputy, who can relieve the Superintendent in some degree of details of manufacture and leave him freer for the proper functions required of him. In this respect mention may be made of the services of Assistant Superintendent Hanumantha Rao, who, during the prolonged absence of any deputy, performed many of his duties and who, since then, has been given increased responsibility as Senior Assistant Superintendent without extra remuneration.

THE BACTERIOLOGICAL SECTION.

6. Work in this Section commenced in August 1904 when the laboratories were first available for occupation.

7. The first step taken was the institution of a department for reporting upon specimens sent in by medical men and others from the districts. In the earlier months of the year the number of such specimens received was not above 3 per mensem. Believing that the Institute could be made of much greater utility to medical officers than they were aware of, a pamphlet, entitled "Aims and objects of the King Institute of Preventive Medicine," setting forth what it was hoped might be done on these lines, was circulated. The effect of this pamphlet was to raise the number of specimens received to an average of about 60 per mensem. In all 489 reports dealing with over 600 specimens have been sent out. The specimens have embraced a considerable variety of material and may be classified as follows:—84 specimens of blood for report as to the presence or absence of malarial parasites or other protozoal organisms; 191 specimens for the diagnosis of plague, of which 9 were from suspected buboes, 26 of sputa of suspected pneumonic cases, 57 of blood, 14 of smears of liver or spleen in fatal cases; 102 specimens relating to plague in rats; 27 specimens of sputum or other material for the detection of the tubercle bacillus, in connection with which 4 guinea pigs

were inoculated; 16 specimens of suspected rabid material, in connection with which 5 post mortems on dogs were undertaken, and 16 rabbits inoculated; 47 specimens for the Widal reaction; 53 specimens of tumours or other tissues for sectioning. In this case a specimen stained and mounted was always furnished to the officer concerned for information. 102 specimens of mosquitoes, mosquito larvae, and flies. A smaller number of specimens of a miscellaneous nature, such as urine, vomit, faeces, specimens of parasitic worms, tetanus, leprosy, etc. During the progress of the work, a new protozoan parasite of considerable scientific interest was discovered in a species of field rat, a new species of bilhartzia ovum noted, and the presence of human ticks in India ascertained for the first time.

8. As it is impossible, owing to the high degree of specialism at present existing in the different branches of research, for a limited staff to give an adequate opinion on all matters relating to tropical medicine, measures have been taken to keep in touch with similar institutions elsewhere. In this respect the Liverpool School of Tropical Medicine have been particularly helpful, from the thoroughness with which they have gone into any matter referred to them.

9. Whilst the department was intended primarily for the examination of specimens sent in, it has, as far as lay in its power, given every facility possible to those officers who wished to do this work themselves. Stains, especially Romanowskis stain, but also others have been sent to those asking for them, at the cost price of the materials used. Such apparatus as entomological pins, collecting tubes and slides have been supplied on the same basis.

With the exception of Kasauli, it is not known that any similar department exists in the tropics.

In addition to such work as the above, which has special reference to medical officers, much has been done in the examination of material for public health purposes.

The examination of water has so far formed the most prominent feature of this section. In addition to a number of samples, systematic investigation has been made upon the conditions of the Madras water-supply, the results of which have been embodied in No. 4 of the "Selected Papers of the King Institute of Preventive Medicine."

10. A few samples of sewage have been received and also milk suspected of containing typhoid bacilli. At present the adequate treatment of such matters can scarcely be carried out, though it is hoped much more may be done, when the recently appointed Assistants are well acquainted with bacteriological methods.

11. A few samples sent by private persons have been reported upon, when they appeared to relate to the public health, or were of general scientific interest. In no case either here, or in the examination of material sent by medical men, has a fee been charged.

12. During the year a good deal of work of an investigatory nature has been carried on. The chief results have been published in the following "Selected Papers of the King Institute of Preventive Medicine":—

(1) No. 3.—Note on some Experiments with Copper Sulphate in relation to Disinfection of Water.

(2) No. 4.—On an Incrustation in the Pipes and certain other objectionable features connected with the Madras Water.

(3) On the point of publication as No. 5. On the use of a Powerful Flame as a practical means of Disinfection.

13. Other work connected with the Madras water-supply and Danyz virus has not yet been published. As regards pure research, the following results may be noted: Rogers' discovery of the flagellate stage of the Leishman-Donovan Bodies was confirmed for the first time, and a note giving the main features described was published in the Report of the Sanitary Commissioner with the Government of India for 1903, whilst a fuller description was given in No. 15 of the Scientific Memoirs of the Officers of the Sanitary and Medical Departments. This was followed by the discovery for the first time of an undoubted hæmogregarine in a

mammal and its cycle of development in the louse. The results of this investigation are on the point of publication in the Scientific Memoirs. Another piece of work has been a study of the anatomy and histology of ticks especially with regard to a species of human tick found in India (*Ornithodoros savignyi*). This paper is also in the hands of the printer and is to be published in the Scientific Memoirs. Further work on a variety of subjects, notably a study of vaccine, has been carried on, but is not yet complete enough for publication. It is hoped that in the future, Commissioned Medical officers will avail themselves of the Institute for work of this nature, for which there is immense scope in Madras.

14. In summing up the results of the year's work in the Bacteriological Department, it may be said that much good work has been done. At the same time it is very evident that the work is capable of enormous expansion in almost every respect. The specimens sent in during the present year exceeded somewhat the powers of the staff to deal with them, and in many cases regrettable delay of necessity arose. Efforts to arouse interest were always met with an increased number, and there can be no doubt that the interest of medical officers in the scientific aspects of their work is much helped by such an institution. The specimens sent in by different surgeons have shown that, as a rule, an enormous waste of valuable pathological material occurs, and this is accounted for by the fact, that a small minority only of the medical officers are able to examine the tumours or tissues they remove, without forwarding the material to Europe, and the payment of a considerable fee. In this way most valuable information regarding cancer and other matters is lost.

15. In the matter of public health the work that could be done, more especially in connection with the examination of water-supplies, is capable of being much increased. At first it was found impossible to do more than very incomplete examinations of samples of water sent to the Institute, and in some cases it was not possible owing to the pressure of other duties to examine the sample before this had become useless for the purpose. Since the appointment of an Assistant of good qualifications, much more thorough examinations have been possible, and as he becomes further trained, it will be possible to increase the work done.

16. Before the Section can really adequately fulfil the position it ought to occupy in the Presidency, it will require the services of a European officer, who can devote to it his whole time.

THE SERUM SECTION.

17. No work has yet been done in this section, and although the buildings are now complete there are still certain essential particulars which await Government's sanction.

S. R. CHRISTOPHERS, Lieut., I.M.S.,
Superintendent.

OFFICE OF THE KING INSTITUTE
OF PREVENTIVE MEDICINE,
GUINDY, 11th July 1905.

TABLE I.

Statement showing the Expenditure incurred during the year 1904-05 under all heads of Expenditure of the Vaccine Section of the King Institute of Preventive Medicine.

Heads of account.	Expenditure incurred.		
	Rs.	A.	P.
Establishment charges	11,442	0	0
Travelling allowance of the establishment	62	5	0
Purchase of calves	10,788	5	1
Feeding charges of calves	1,763	13	2
Service postage	1,319	2	6
Service telegrams	36	1	9
Telephone charges	35	0	0
Hot and cold weather charges	42	9	0
Gas works	340	13	10
Water works	612	8	2
Petty construction and repairs	232	4	8
Purchase of, and repairs to, furniture	308	3	2
Tour charges	57	12	0
Office expenses	158	4	2
Miscellaneous charges	1,219	15	7
Total Gross Charges	37,419	2	1
Add—			
Expenditure by the Public Works Department on repairs to buildings	711	14	3
Grand Total	38,131	0	4
Deduct—			
(1) Credits under "sale of calves" and miscellaneous receipts remitted to the treasury	5,862	5	10
(2) Amount to be recovered from private bodies for the supply of vaccine sufficient for 6,208 cases at 10 pice a case	323	5	4
Total Credits	6,185	11	2
Net Cost	31,945	5	2

TABLE II.

Statement showing the results of a number of successful inoculations of the calf with Lanoline Vaccine Paste which had been returned by Vaccinators and kept at room temperature in the Institute for various periods.

Number of calf the vaccine of which was returned by operators.	Date of preparation of paste.	Date on which experiment was made.	Duration of vitality in days.	Percentage of punctures success.
	1904.	1905.		
232	22nd April	9th May	383	60
354	16th May	9th "	359	100
Issue No. 23	7th June	10th "	338	100
" 28	13th "	10th "	332	60
" 33	16th "	10th "	329	90
" 47	25th "	10th "	320	80
" 48	26th "	10th "	319	100
" 48	26th "	8th "	327	100
" 50	28th "	10th "	317	90
" 51	29th "	10th "	316	100
" 10	1st July	19th "	323	100
Calf No. 667	7th "	19th "	317	100
Issue No. 64	18th "	19th "	306	100
Calf No. 752	21st "	22nd "	308	80
Issue No. 20	22nd "	21st "	304	20
" 70	24th "	18th "	297	100
" 70	24th "	11th "	292	90
" 75	24th "	11th "	292	100
" 76	29th "	16th "	292	100
" 76	29th "	19th "	295	100
" 78	31st "	13th "	287	100
" 81	2nd August	11th "	283	100
Calf No. 781	3rd "	9th "	280	100
Issue No. 82	3rd "	11th "	282	100
" 83	4th "	18th "	288	100
Calf No. 833	5th "	22nd "	291	80
Issue No. 85	6th "	18th "	286	40
Calf No. 794	6th "	11th "	277	90
" 911	13th "	18th "	279	100
" 826	14th "	11th "	271	40
" 844	17th "	16th "	273	100
" 870	18th "	13th "	269	100
" 933	21st "	13th "	266	80
" 933	21st "	18th "	271	40
" 920	27th "	11th "	259	100
" 971	28th "	11th "	257	80
" 954	31st "	16th "	259	100
" 954	31st "	13th "	256	100
Issue No. 95	16th September	21st "	248	40
" 14	25th "	9th "	227	60
Calf No. 161	26th "	22nd "	240	80
" 203	30th "	21st "	234	100
" 284	9th October	9th "	213	100
" 295	12th "	22nd "	223	100
" 389	14th "	22nd "	211	60
" 324	16th "	22nd "	209	75
" 444	31st "	22nd "	204	100
" 452	31st "	22nd "	204	80
" 111	22nd November	22nd "	182	80
" 278	3rd December	21st "	170	100
" 213	6th "	21st "	167	100
" 520	9th "	21st "	164	60

TABLE III.

Statement showing the results of inoculation of the calf with vaccine returned by Vaccinators, which had therefore been exposed to unusually severe conditions.

Number of tubes of vaccine returned during the year.	Number selected for experiment.	Results.			
		Between 100 per cent. and 80 per cent.	Between 80 per cent. and 60 per cent.	Below 60 per cent. but successful.	Total failure.
674	359	270	15	28	45

TABLE IV.

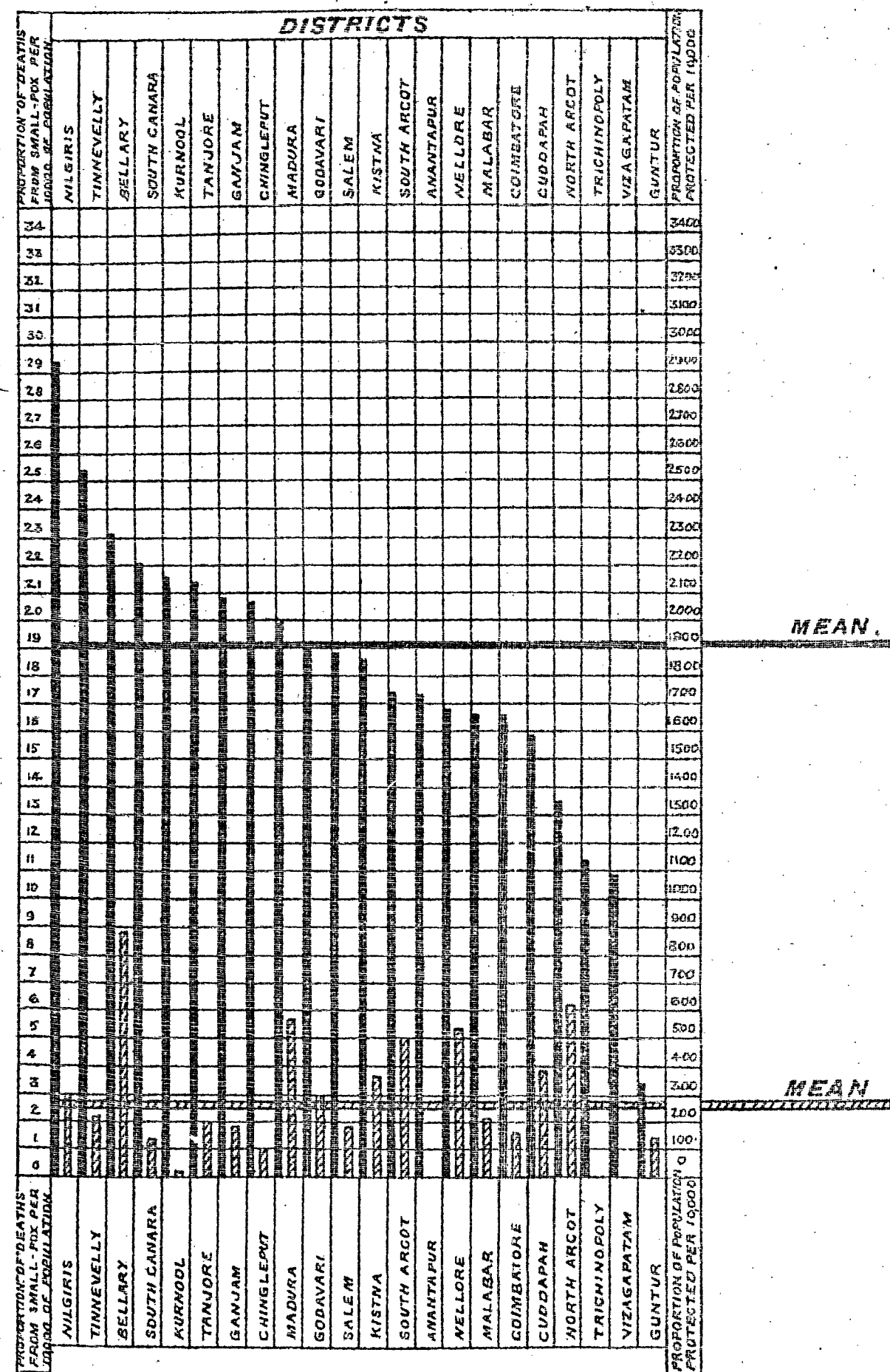
Statement giving the percentage success as shown by returns made to the Institute by Vaccinators.

Month.	Successful cases.	Unsuccessful cases.	Percentage of success.
1904.			
April	7,012	2,495	73.76
May	12,318	2,957	80.64
June	30,426	7,470	80.28
July	32,368	11,804	73.28
August	63,759	4,917	92.34
September	72,594	3,511	95.38
October	88,956	5,386	94.29
November	107,834	8,233	92.91
December	113,595	9,178	92.52
1905.			
January	116,438	8,746	93.01
February	119,338	9,798	92.39
March	93,865	8,102	92.00
Total	853,089	62,657	91.21

TABLE V.

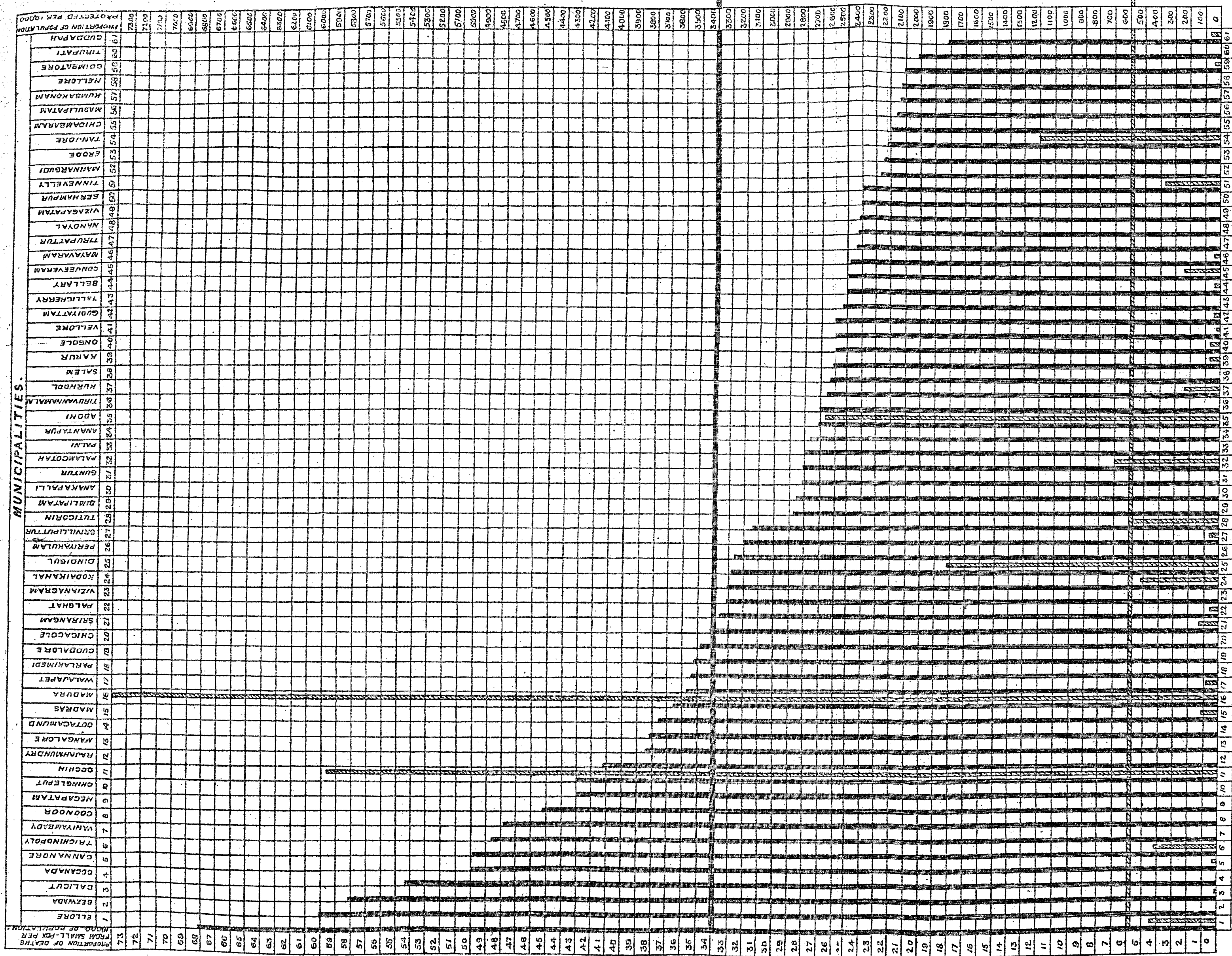
Statement showing percentage success of Lanoline Vaccine Paste as returned by Vaccinators of the District of Malabar.

Month.	Successful.	Unsuccessful.	Percentage of success.
1904.			
April	No returns.		
May			
June			
July			
August			
September	2,395	123	96.5
October	7,931	270	96.71
November	16,314	206	98.74
December	10,203	214	97.95
1905.			
January	6,722	122	98.76
February	8,867	144	98.42
March	3,136	60	98.12
Total	53,298	1,139	97.91



REFERENCE

THICK BLACK LINES REPRESENT THE PROPORTION PER 10000 PROTECTED FROM SMALL POX
 SHADED LINES REPRESENT THE PROPORTION OF DEATHS FROM SMALL POX PER 10000 OF POPULATION.



REFERENCE

THICK BLACK LINES REPRESENT THE PROPORTION OF POPULATION PER 10000 PROTECTED FROM SMALL-POX.
SHADED LINES REPRESENT THE PROPORTION OF DEATHS FROM SMALL-POX PER 10000 OF POPULATION.
N.B. SHADOWED LINE IN COLUMN 16 REPRESENTS 88-6 DEATHS IN MADURA.

APPENDIX.

VACCINATION RETURNS.

A—VACCINE

STATEMENT No. I showing the Particulars of Vaccination in the

Number.	Districts.	Circles.	Population of districts or circles according to the census of 1901.	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 and	
						Males.	Females.	Total.		Total.	Under 1 year.
1	2	3	4	5	6	7	8	9	10	11	
1	Anantapur.	Anantapur circle	454,372	141	9	7,022	7,547	15,476	1,719	15,123	6,411
2		Penukonda do.	325,944	141	6	5,783	5,594	11,377	1,806	11,188	4,081
3		Total of district	780,316	141	15	13,712	13,141	26,853	1,790	26,321	10,495
4	Bellary.	Bellary circle	566,793	151	15	10,534	10,045	20,579	1,372	20,423	11,981
5		Harpanahalli circle	291,758	151	9	5,959	5,227	11,186	1,243	11,016	6,657
6		Total of district	858,551	151	24	16,493	15,272	31,765	1,323	31,439	18,638
7	Chingleput.	Chingleput circle	1,255,407	408	14	11,993	11,006	23,599	1,685	23,042	12,665
8		Saidapet do.	1,255,407	408	13	10,329	9,868	20,197	1,553	19,645	9,812
9		Total of district	1,255,407	408	27	22,322	21,474	43,796	1,622	42,687	22,477
10	Coimbatore.	North Coimbatore circle.	588,268	192	11	9,147	8,896	18,043	1,640	17,910	7,095
11		South do.	648,692	320	10	10,768	10,780	21,558	2,053	21,276	8,216
12		East do. do.	885,114	319	16	14,710	14,262	28,972	1,767	28,615	10,917
13		Total of district	2,122,074	270	37	34,625	33,978	68,603	1,809	67,801	26,228
14	Cuddapah.	Cuddapah circle	1,277,335	146	10	6,977	6,110	13,117	1,311	13,045	2,863
15		Siddhavattam do.	1,277,335	146	15	9,901	9,444	19,345	1,289	19,139	7,281
16		Total of district	1,277,335	146	8	5,193	4,673	9,866	1,233	9,706	2,805
17	Guntur.	Chattrapur circle	1,948,995	233	12	11,516	11,072	22,618	1,885	22,415	6,254
18		Chicacole do.	1,948,995	233	12	10,438	10,054	20,492	1,708	19,916	7,451
19		Ganjam hill tracts	1,948,995	233	13	8,049	7,185	15,234	1,172	13,690	3,655
20		Russellkonda circle	1,948,995	233	9	10,035	9,327	19,362	2,038	18,831	2,554
21		Total of district	1,948,995	233	46	40,068	37,628	77,706	1,671	74,852	19,314
22	Godavari.	Pithapuram circle	1,361,457	274	11	11,714	10,997	22,711	2,065	22,517	3,362
23		Rajahmundry circle	1,361,457	274	14	16,114	15,533	31,670	2,262	30,045	4,832
24		Local Fund vaccinators in agency.	1,361,457	274	7	3,968	3,829	7,807	1,116	7,720	1,212
25		Total of district	1,361,457	274	32	31,796	30,359	62,188	1,943	60,282	9,406
26	Kistna.	Ellore circle	1,646,886	243	15	19,355	19,001	38,386	2,559	37,667	5,127
27		Masulipatam circle	1,646,886	243	18	18,234	18,245	36,479	2,027	35,341	6,819
28		Total of district	1,646,886	243	33	37,589	37,246	74,865	2,268	73,506	11,946
29	Guntur.	Guntur circle	1,446,938	...	19	21,383	2,887	42,270	2,225	41,940	12,234
30		Narasaraopet circle	1,446,938	...	9	9,858	9,627	19,485	2,165	19,364	6,211
31		Total of district	1,446,938	...	28	31,241	30,514	61,755	2,205	61,313	18,445
32	Kurupol.	Cumbum circle	863,806	114	12	8,820	6,902	15,722	1,310	14,354	5,241
33		Kurupol do.	863,806	114	12	10,118	8,920	19,038	1,586	18,706	7,850
34		Total of district	863,806	114	24	18,938	15,822	34,760	1,446	33,000	13,091
35	Madura.	Dindigul circle	2,693,074	307	13	12,901	12,533	25,434	1,861	24,742	10,567
36		Madura do.	2,693,074	307	15	12,050	11,438	23,488	1,560	23,224	5,446
37		Paramagudi do.	2,693,074	307	17	14,711	13,567	28,278	1,663	27,053	6,219
38		Tirumangalam circle	2,693,074	307	12	9,755	9,201	18,956	1,579	18,249	4,672
39		Total of district	2,693,074	307	57	49,417	46,739	96,156	1,672	93,868	26,904

* Tirumangalam was newly constituted a circle in June 1904.

DEPARTMENT.

Madras Presidency during the official year 1904-1905.

Primary vaccinations.			Re-vaccination.			Percentage of successful cases excluding unknown.		Persons successfully vaccinated per 1,000 of population.	Percentage of unknown cases to total cases.		Average annual number of persons successfully vaccinated during previous 5 years.		Average annual number of deaths from small-pox during previous 5 years.	
Successful.									Primary and secondary vaccinations.	Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
1 and under 6 years.	Total of all ages.	Unknown.	Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.							
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
5,292	12,283	58	343	322	...	81.5	83.8	27.7	0.4	...	...	...	...	...
5,614	10,015	50	189	163	...	80.9	80.9	31.1	0.4	...	...	...	...	...
10,936	22,298	108	532	475	...	85.1	89.2	29.1	0.4	...	13,819	26.5	337	0.4
6,200	18,623	151	156	119	3	91.8	77.7	33.0	0.7	1.9	...	...	...	...
3,728	10,827	17	170	155	4	93.4	93.4	37.6	0.1	2.3	...	...	...	...
9,928	29,450	168	325	274	7	91.2	85.8	34.6	0.5	2.1	28,299	32.9	607	0.7
6,371	20,152	481	557	420	41	89.3	81.4	30.1	2.1	7.4	...	...	...	...
6,621	16,965	493	552	355	60	88.6	73.5		2.5	12.5				
12,092	37,117	974	1,109	775	110	88.9	77.5	30.1	2.2	9.9	36,957	29.4	566	0.4
5,218	12,828	862	133	48	9	75.2	38.7	21.8	4.8	6.8	...	...	...	...
1,890	16,709	1,192	282	130	59	83.3	58.3	26.0	5.6	20.9	...	...	...	...
9,027	20,696	1,781	387	195	45	77.1	57.0	23.6	6.2	11.6	...	...	...	...
22,314	50,224	3,835	802	373	113	78.5	54.1	23.8	5.6	14.0	51,757	24.4	318	0.3
6,335	11,171	119	72	58	...	86.4	80.5	29.4	0.9	...	...	...	...	...
9,268	18,058	69	206	164	7	94.6	77.3		0.3	3.3				
4,142	8,032	174	100	25	...	83.7	25.0		1.7	...				
19,745	37,261	362	378	237	7	89.5	63.8	29.4	0.8	1.8	27,964	21.9	906	0.7
12,903	19,720	797	203	127	36	91.2	76.0	34.5	3.5	17.7	...	...	...	...
8,910	17,074	806	576	388	91	89.3	80.6		4.0	15.8				
6,379	12,317	498	1,541	1,304	34	93.2	86.3		3.5	2.2				
12,093	16,034	895	531	454	25	89.3	89.7		4.7	4.7				
39,685	65,145	2,956	2,854	2,273	186	90.6	85.1	34.5	3.9	6.5	57,700	29.6	449	0.2
10,163	14,605	2,076	194	42	40	71.4	27.2	29.0	9.2	20.6	...	...	...	...
12,702	18,768	2,589	1,625	291	385	72.0	21.0		8.6	23.6				
3,036	4,890	677	87	38	11	69.4	52.0		6.7	16.0				
25,901	39,264	5,352	1,906	341	439	71.4	23.2	29.0	8.8	23.0	70,509	32.3	3,359	1.5
15,028	23,844	3,278	719	222	123	69.3	37.2	34.0	8.7	17.1	...	...	...	...
19,975	31,403	144	638	546	...	88.0	85.6		0.4	...				
35,903	55,247	3,422	1,357	768	123	78.8	62.2	34.0	4.6	9.0	54,612	26.5	853	0.4
10,780	34,563	657	321	214	21	83.7	71.3	34.6	1.6	6.5	...	...	...	...
8,288	15,303	155	121	58	1	79.6	48.3		0.8	0.8				
28,058	49,866	812	442	272	22	82.4	64.7	34.6	1.3	4.9	...	...	...	...
6,025	13,055	73	1,368	1,253	6	91.4	92.1	35.6	0.5	0.5	...	...	...	...
7,330	16,247	531	332	239	32	89.3	79.6		2.8	9.6				
13,355	23,302	694	1,700	1,492	40	90.3	89.8	35.6	1.8	2.3	27,094	31.3	428	0.4
10,482	21,995	588	692	453	48	91.0	70.3	32.9	2.3	6.9	...	...	...	...
13,667	21,191	593	264	145	28	93.5	61.4		2.4	10.6				
16,780	26,044	241	625	462	22	95.0	76.6		0.8	3.5				
16,744	16,829	300	707	566	37	93.7	84.4		1.6	5.2				
51,673	86,059	1,692	2,288	1,626	135	93.3	75.5	32.9	1.8	5.9	74,265	27.8	1,181	0.4

A—VACCINE

STATEMENT No. I showing the Particulars of Vaccination in the

Number.	Districts.	Circles.	Population of districts or circles according to the census of 1901.	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 and	
						Males.	Females.	Total.			Total.	Under 1 year.
30	Maabar.	Tellicherry circle ...	684,757	451	144	15,912	14,016	29,928	2,022	29,461	1,135	
31		Calicut do. ...	1,054,536			20,417	16,203	36,720	2,012	39,165	1,336	
32		Palghat do. ...	874,862			19,214	16,260	35,474	2,056	34,582	2,021	
		Total of district ...	2,594,155			55,543	46,579	102,122	2,287	100,228	4,492	
33	Nellore.	Central circle ...	1,240,776	166	9	7,592	7,403	14,995	1,666	14,873	3,785	
34		Southern do. ...				6,575	6,261	12,836	1,526	12,649	4,207	
35		Northern do. ...				9,816	9,489	19,304	1,485	19,250	4,767	
		Total of district ...				23,982	23,153	47,135	1,520	46,752	12,900	
36	Nilgiris.	Nilgiri circle ...	84,316	90	4	2,113	1,512	3,625	906	3,574	657	
		Total of district ...	84,316			2,113	1,512	3,625	906	3,574	657	
37	North Arcot.	Chittoor circle ...	695,139	288	13	9,737	9,445	19,382	1,491	18,818	6,637	
38		Vellore do. ...	775,035			7,760	7,760	15,520	1,430	15,520	4,703	
39		Karvennagar do. ...	647,117			7,708	7,595	15,303	1,399	15,288	4,968	
		Total of district ...	2,117,288			26,919	25,020	51,939	1,442	50,639	16,308	
40	Salem.	Northern circle ...	2,103,659	280	10	7,255	7,418	14,673	1,386	14,396	6,864	
41		Salem do. ...				10,294	10,370	20,664	1,212	20,021	8,521	
42		Namakkal do. ...				13,560	13,352	26,912	1,648	26,237	7,955	
		Total of district ...				31,118	31,080	62,198	1,416	60,654	21,340	
43	South Arcot.	Cuddalore circle ...	2,260,700	435	16	17,124	15,969	33,093	2,068	32,752	9,728	
44		Vridhachalam circle ...				6,388	8,131	14,519	2,065	16,335	4,858	
45		Tiruvannamalai do. ...				11,339	11,184	22,523	2,252	22,474	6,840	
		Total of district ...				36,851	35,264	72,135	2,121	71,021	21,426	
46	South Canara.	Northern circle ...	678,575	271	14	11,317	10,863	22,180	1,584	21,506	2,810	
47		Kasaragod do. ...	412,122			6,982	6,544	13,526	1,229	13,263	1,983	
		Total of district ...	1,090,697			18,299	17,407	35,706	1,428	35,009	4,793	
48	Tanjore.	Tanjore circle ...	2,025,571	550	14	13,140	13,342	26,482	1,820	24,786	6,940	
49		Negapatnam do. ...				13,569	13,605	27,294	2,065	25,431	6,011	
50		Pattukkottai do. ...				9,644	9,291	18,935	1,942	18,198	5,231	
		Total of district ...				36,353	36,238	72,591	1,940	69,415	18,182	
51	Tinnevely.	Sriehilputtur circle ...	509,037	320	10	12,058	12,172	24,230	2,423	23,660	11,954	
52		Sérinadévi do. ...	559,439			13,353	14,151	27,504	2,650	26,320	12,212	
53		Tinnevely do. ...	766,687			17,653	16,971	34,624	2,473	34,451	13,932	
		Total of district ...	1,835,163			42,864	43,294	86,158	2,516	84,231	38,098	
54	Trichinopoly.	Trichinopoly circle ...	812,045	371	13	10,042	15,583	25,625	2,432	21,397	6,576	
55		Ariyalur do. ...	594,965			11,933	11,564	23,497	2,349	21,337	4,685	
		Total of district ...	1,407,010			27,975	27,147	55,122	2,890	54,632	11,261	

DEPARTMENT.

Madras Presidency during the official year 1904-1905—continued.

Secondary vaccinations.			Re-vaccination.			Percentage of successful cases excluding unknown.		Persons successfully vaccinated per 1,000 of population.	Percentage of unknown cases to total cases.		Average annual number of persons successfully vaccinated during previous 5 years.		Average annual number of deaths from small-pox during previous 5 years.	
Successful.														
1 and under 6 years.	Total of all ages.	Unknown.	Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.		Primary and secondary vaccinations.	Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
15,920	28,677	331	467	212	13	38.4	46.6	43.4	1.0	2.7	...	...	...	...
14,219	33,586	1,024	535	313	44	95.5	63.7	32.1	2.8	8.2	...	...	...	...
15,656	32,963	688	892	233	23	97.2	26.9	37.9	1.9	3.1	...	...	...	...
45,786	95,236	2,033	1,894	758	85	97.0	41.9	33.1	2.0	4.4	57,273	22.0	1,615	0.6
7,180	12,065	658	122	58	28	84.8	61.7	30.2	4.4	22.9	...	...	...	...
4,688	9,872	456	187	89	55	80.9	67.4	30.2	3.6	29.4	...	...	...	...
9,358	15,370	685	74	40	6	82.8	58.8	30.2	3.5	8.1	...	...	...	...
21,226	37,307	1,799	383	187	89	83.0	63.6	30.2	3.8	23.2	34,926	24.0	988	0.6
1,310	3,542	1	51	39	...	99.1	76.5	42.4	0.03	...	...	...	...	...
1,819	3,542	1	51	39	...	99.1	76.5	42.4	0.03	...	3,687	43.1	43	0.5
9,172	17,020	274	564	377	39	91.7	71.8	25.0	1.4	6.9	...	...	...	...
8,447	14,242	555	1,231	1,119	4	92.6	91.1	19.8	3.4	0.3	...	...	...	...
8,186	13,995	166	105	65	15	92.5	72.2	21.7	1.0	14.2	...	...	...	...
25,806	45,257	905	1,960	1,561	58	92.3	84.7	22.1	1.9	3.0	32,287	19.9	1,992	0.9
5,591	13,086	107	277	223	2	91.5	81.0	24.0	0.7	0.7	...	...	...	...
9,613	16,879	388	583	415	18	86.0	73.4	24.0	1.9	3.1	...	...	...	...
11,992	21,424	767	694	465	69	84.1	75.6	24.0	2.9	10.0	...	...	...	...
27,193	51,389	1,282	1,544	1,103	89	89.5	75.7	24.0	2.0	5.7	30,714	23.3	1,268	0.5
12,672	24,636	2,135	341	258	43	89.6	86.5	24.5	0.5	12.5	...	...	...	...
6,442	12,126	1,148	124	47	24	79.5	47.0	24.5	7.0	19.3	...	...	...	...
10,400	18,415	864	49	15	21	85.2	53.5	24.5	3.8	42.8	...	...	...	...
29,514	55,237	4,147	514	320	88	81.8	75.1	24.5	5.7	17.1	57,124	25.2	2,259	0.9
12,144	19,344	553	374	216	49	91.0	66.4	29.0	2.5	13.1	...	...	...	...
5,907	10,306	811	323	151	20	83.8	51.5	25.5	6.1	9.2	...	...	...	...
18,051	29,740	1,366	697	867	79	88.4	59.3	27.6	3.9	11.3	34,667	21.8	501	0.1
14,335	24,102	277	696	574	60	98.3	90.2	34.0	1.1	8.6	...	...	...	...
12,445	22,812	168	3,803	3,522	137	98.0	96.0	34.0	0.7	3.6	...	...	...	...
9,413	17,410	172	737	644	29	96.6	90.9	34.0	0.9	3.9	...	...	...	...
36,193	64,324	617	5,236	4,740	226	97.7	94.6	34.0	0.9	4.3	64,277	31.2	1,813	0.8
6,870	19,534	513	570	453	29	84.3	83.7	33.3	2.1	5.0	...	...	...	...
9,613	23,409	466	584	486	45	90.8	90.1	42.7	1.7	7.7	...	...	...	...
13,365	28,758	653	173	136	5	85.0	80.9	37.6	1.3	2.8	...	...	...	...
29,845	71,701	1,632	1,327	1,075	79	86.7	86.1	37.8	1.9	5.9	70,009	36.3	821	0.4
16,250	24,871	1,575	228	115	59	83.4	68.0	30.7	5.0	...	...	...	...	...
13,373	19,916	1,143	362	177	56	90.5	57.8	39.7	2.0	...	...	...	...	...
29,623	44,787	2,718	590	292	115	86.4	61.4	34.5	1.4	19.4	35,519	23.3	220	0.1

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A—VACCINE

STATEMENT No. 1 showing the Particulars of Vaccination in the

Number.	Districts.	Circles.	Population of districts or circles according to the census of 1901.	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 and	
						Males.	Females.	Total.		Total.	Under 1 year.
1	2	3	4	5	6	7			8	9	10
56	Vizagapatam.	Gunupur circle ...	...	...	4	2,297	2,122	4,419	1,105	4,227	583
57		Zamindari vaccinators.	...	...	4	2,700	2,222	4,922	1,280	4,658	655
		Jaypore circle ...	...	...	8	6,310	5,310	11,620	1,456	11,320	919
		Zamindari vaccinators.	...	...	7	4,997	4,609	9,606	1,372	9,256	844
		Total of hill tracts ...	...	...	23	16,334	14,263	30,597	1,330	29,461	3,301
58.	Vizagapatam	Vizagapatam circle ...	...	...	14	14,811	14,723	29,534	2,109	29,090	6,446
		Government vaccinators (Gudem hills) ...	...	...	1	212	196	408	408	408	24
59		Vizianagaram circle ...	...	...	21	20,707	19,818	40,525	1,330	40,213	11,561
		Total of district ...	2,829,418	165	69	52,064	49,000	101,064	1,713	99,162	21,332
		Total of circles and districts ...	35,805,691	253	729	672,853	636,277	1,309,130	1,794	1,279,398	300,721
1	Military Cantonments.	Bangalore ...	89,599	6,029	2	649	228	927	463	594	375
2		Secunderabad ...	91,114	4,705	3	2,737	2,451	5,188	1,482	4,238	2,908
		Total of cantonments ...	180,713	5,600	5	3,436	2,679	6,115	1,112	4,832	3,283
		* Medical Subordinates.	...	...	...	9,755	303	10,058	...	2,370	10
1	Municipalities.	Adoni ...	30,416	13,208	1	735	619	1,354	1,354	1,241	951
2		Anantapur ...	7,988	7,938	1	173	99	272	272	202	124
3		Anakapalle ...	15,539	1,546	1	404	403	807	807	853	622
4		Bellary ...	58,247	2,240	4	646	462	1,108	277	963	679
5		Berhampur ...	25,729	6,432	1	569	571	1,140	1,140	1,036	762
6		Borunda ...	24,224	4,603	1	814	465	1,279	1,279	1,008	722
7		Bhimipatam ...	10,212	2,446	1	229	227	456	456	393	260
8		Calicut ...	76,981	5,821	4	4,993	3,663	8,656	2,155	7,548	3,132
9		Cannanore ...	27,311	4,705	2	2,408	1,493	3,901	1,953	2,446	1,254
10		Chacacole ...	11,196	6,065	1	413	592	1,005	1,005	614	465
11		Chidambaram ...	10,000	9,854	1	508	321	829	829	642	432
12		Chingleput ...	16,551	8,443	1	602	246	848	803	490	361
13		Cochin ...	19,274	22,627	2	1,233	682	1,915	957	1,361	594
14		Cocannada ...	49,696	6,012	2	4,488	535	5,019	2,659	1,567	1,495
15		Coimbatore ...	48,080	17,693	12	932	681	1,613	898	1,310	867
16		Conjeevaram ...	45,164	11,535	12	898	939	1,837	618	1,761	1,181
17		Coonoor ...	8,625	917	1	340	220	560	550	478	199
18		Cuddalore ...	52,210	8,926	2	1,722	1,182	2,904	1,452	2,458	1,493
19		Cuddapah ...	16,482	842	1	522	299	821	682	546	345
20		Dindigul ...	25,182	8,391	1	616	475	1,121	1,121	963	672
21		Ellore ...	39,521	11,174	2	3,164	1,672	4,836	2,418	3,565	1,724
22		Erode ...	15,529	13,329	1	227	142	379	185	320	241
23		Gadiyottam ...	21,385	2,665	1	438	353	791	791	753	615
24		Guntur ...	30,833	1,719	1	703	749	1,452	1,452	1,314	868
25		Karur ...	12,769	12,769	1	303	217	520	520	447	334
26		Kodakāmal ...	1,912	161	...	61	57	118	118	106	96
27		Kumbakonam ...	59,673	3,945	2	1,085	861	1,946	973	1,710	1,092
28		Kurnool ...	25,376	5,147	1	743	490	1,233	1,203	899	630
29		Madras ...	509,346	18,864	25	24,410	14,327	38,737	1,549	24,418	16,126
30		Madura ...	105,984	17,664	32	3,375	2,810	6,185	1,892	5,183	3,488
31		Mannargudi ...	20,449	3,408	1	459	311	800	800	733	574
32		Mangalore ...	44,108	9,341	3	1,174	1,056	2,230	743	1,960	875
33		Masulipatam ...	39,507	1,706	1	737	588	1,325	1,325	1,199	860
34		Miyavaram ...	24,276	8,092	1	601	422	1,023	1,023	934	597
35		Nandyal ...	15,137	3,027	1	598	236	831	831	692	447
36		Negapatam ...	57,100	8,798	3	2,817	1,250	4,067	1,858	3,240	1,854
37		Nellore ...	32,040	1,966	1	785	460	1,245	1,245	956	732
38		Onzole ...	12,864	3,216	1	360	256	616	616	448	368
39		Ootacamund ...	18,596	1,690	2	993	505	1,498	749	799	670

* Work performed in police hospitals, jails, revenue and other departments.

† Vaccination was performed by the medical officer in charge.

DEPARTMENT.

Madras Presidency during the official year 1904-1905--continued.

Secondary vaccinations.			Re-vaccination.			Percentage of successful cases excluding unknown.		Persons successfully vaccinated per 1,000 of population.	Percentage of unknown cases to total cases.		Average annual number of persons successfully vaccinated during previous 5 years.		Average annual number of deaths from small-pox during previous 5 years.	
Successful.						Primary and secondary vaccinations.	Re-vaccination.		Primary and secondary vaccinations.	Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
1 and under 6 years.	Total of all ages.	Unknown.	Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.							
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
2,350	3,594	89	192	143	21	86.8	83.6	...	2.1	10.9	...	...	...	...
2,385	3,906	100	204	227	10	85.6	89.3	...	2.1	3.7	...	...	...	...
5,097	8,048	199	330	184	...	77.7	55.7	...	1.7	...	...	...	...	...
3,772	6,479	664	350	277	...	75.4	79.1	...	7.1	...	...	...	...	...
13,604	22,627	1,052	1,136	831	31	79.6	75.2	...	3.5	2.7	...	...	...	...
12,681	21,459	1,814	454	184	60	78.7	50.5	...	6.2	19.8	...	...	...	...
166	238	23	...	...	...	62.3	...	...	6.3	...	...	...	...	...
17,115	31,544	958	312	182	24	79.0	63.1	...	2.3	7.6	...	...	...	...
43,569	75,368	3,550	1,802	1,197	145	79.0	68.1	27.0	3.8	7.6	69,426	24.5	223	0.07
578,220	1,075,111	40,735	29,732	23,545	2,235	86.8	74.7	30.6	3.2	7.5	977,936	27.3	21,147	0.5
104	479	...	333	252	...	80.6	75.6	8.1	...	...	960	10.7	67	0.7
959	4,123	27	950	392	46	97.9	43.3	49.5	0.6	4.8	4,957	54.4	5	0.05
1,003	4,602	27	1,283	644	40	95.8	52.0	23.0	0.5	3.6	5,917	32.7	72	0.4
69	1,834	163	7,685	5,574	465	83.1	76.5	...	6.8	5.2	...	...	...	...
162	1,146	33	113	67	14	91.8	67.6	39.8	2.6	12.3	1,165	38.3	1	0.03
28	154	2	70	23	2	77.0	30.8	52.2	0.9	2.3	230	41.5	1	0.1
63	690	2	14	6	3	81.0	54.5	37.5	0.2	21.4	761	41.0	1	0.05
108	787	10	145	35	...	82.5	24.1	14.1	1.0	...	2,282	37.4	35	0.6
112	875	...	104	96	3	84.4	95.0	37.7	...	2.8	933	36.2	2	0.07
147	1,014	6	253	194	1	99.4	76.9	49.8	0.5	0.4	1,276	52.6	9	0.3
46	307	2	73	58	2	80.7	81.6	85.7	0.7	2.7	485	42.5	1	0.09
1,659	7,278	40	953	856	18	96.9	91.5	105.6	0.5	1.8	6,452	84.2	174	2.2
889	2,536	36	1,290	930	145	96.8	83.4	121.2	1.3	11.5	1,786	64.5	62	2.2
64	547	2	421	360	...	89.4	85.5	49.8	0.3	...	917	50.3	8	0.1
78	524	19	42	21	12	93.1	70.0	27.3	3.2	28.5	637	31.9	8	0.4
60	457	10	418	248	24	95.2	62.9	60.8	2.0	5.7	649	61.5	2	0.1
306	1,234	18	564	253	74	92.5	51.6	77.1	1.3	13.1	1,152	59.2	92	4.7
218	1,213	128	3,722	1,613	987	82.5	58.9	58.7	6.0	26.5	3,850	80.0	17	0.3
271	1,161	43	276	144	21	89.5	56.4	24.2	8.2	7.6	1,661	31.2	43	0.8
221	1,414	92	86	45	23	85.2	71.4	31.3	5.2	26.7	1,659	55.9	14	0.3
170	431	8	82	67	9	91.7	91.8	58.2	1.6	10.9	627	73.5	1	0.1
305	1,845	459	446	282	75	92.2	76.0	40.7	18.6	16.8	2,769	53.0	17	0.3
113	465	30	136	82	21	90.1	71.3	33.2	5.4	15.4	492	28.1	6	0.4
238	922	3	158	107	21	96.0	78.1	40.8	0.3	13.2	1,299	51.5	14	0.5
1,181	3,473	3	1,271	855	55	97.5	70.3	129.1	0.08	4.3	3,196	95.3	18	0.5
25	273	...	50	28	...	85.3	56.0	19.3	...	...	524	33.7	14	0.9
83	703	14	38	26	8	95.1	86.6	34.1	1.9	21.0	600	37.4	14	0.6
108	1,152	25	133	30	9	89.3	23.2	38.3	1.9	6.5	1,249	40.5	10	0.3
63	409	1	73	36	6	89.7	53.7	81.1	0.2	8.2	501	39.2	3	0.1
16	103	...	12	12	...	100.0	100.0	61.7	...	...	103	53.8	...	...
503	1,683	3	236	206	...	98.6	87.3	31.6	0.1	...	1,614	30.3	...	...
82	742	14	334	130	78	92.6	50.7	36.3	1.6	23.3	905	39.2	1	0.03
5,555	23,968	339	14,119	9,491	2,133	99.5	77.8	65.6	1.3	14.8	26,539	52.1	80	0.1
1,852	5,009	4	1,602	850	21	96.7	86.6	55.2	0.07	2.0	5,189	52.0	45	0.4
67	715	1	62	42	18	97.0	95.4	37.0	0.1	29.0	681	33.3	5	0.2
705	1,718	1	270	223	...	87.8	82.5	44.0	0.2	...	2,527	57.2	27	0.6
218	1,046	5	126	111	...	87.0	88.1	29.2	...	...	1,236	31.1	9	0.2
134	869	39	89	46	27	90.1	74.2	35.2	3.8	30.3	877	36.1	7	0.2
42	617	5	139	100	8	89.8	76.3	47.3	0.7	5.7	590	38.9	14	0.9
1,241	3,183	8	827	656	13	95.5	80.6	67.1	0.2	1.5	3,614	63.1	19	0.3
58	828	3	259	77	91	87.9	33.9	28.5	0.3	81.4	1,065	31.3	6	0.1
19	388	...	168	147	8	86.6	91.8	41.7	...	4.7	477	37.0	2	0.1
78	786	...	699	595	4	93.3	85.6	74.2	...	0.6	965	51.9	1	0.05

A—VACCINE

STATEMENT No. I showing the Particulars of Vaccination in the

Number.	Districts.	Circles.	Population of districts or circles according to the census of 1901.	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 and	
						Total.	Under 1 year.	Total.			
1	2	3	4	5	6				7	8	9

Note.—This statement does not include the statistics of dispensary vaccination
 N.B.—In calculating the percentage of success shown in this statement and

* Excludes the population of the cantonments of Bangalore and Secunderabad.
 † In finding the average number of persons vaccinated, the total work of medical

DEPARTMENT.

Madras Presidency during the official year 1904–1905—continued.

secondary vaccinations.			Re-vaccination.			Percentage of successful cases excluding unknown.		Persons successfully vaccinated per 1,000 of population.	Percentage of unknown cases to total cases.		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.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.		Primary and secondary vaccinations.	Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
1 and under 6 years.	Total of all ages.	Unknown.												
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
152	1,438	...	229	198	...	90.4	85.6	41.3	...	...	1,548	39.1	31	0.7
523	2,014	...	107	80	...	97.0	92.5	48.5	...	...	2,118	47.9	27	0.6
214	900	...	103	81	2	97.0	76.4	56.5	...	1.8	896	51.6	...	...
78	771	3	35	33	...	94.8	97.0	44.7	0.3	2.3	843	46.9	...	...
78	552	35	337	204	86	87.7	81.3	44.0	5.2	25.5	702	40.8	...	...
452	1,394	21	666	663	167	89.6	79.9	56.7	1.3	16.7	2,210	60.7	28	0.7
110	2,107	9	56	17	26	80.8	56.6	30.0	0.3	46.4	2,007	38.0	4	0.05
448	1,126	24	81	78	2	98.9	98.7	52.2	2.0	2.4	1,159	50.3	5	0.2
86	1,144	...	62	47	...	94.5	75.8	45.1	...	...	1,232	46.7	5	0.1
300	1,872	...	69	61	...	98.9	88.4	33.4	...	...	1,827	31.5	19	0.3
278	1,230	23	316	109	83	96.5	46.7	48.0	1.7	26.2	963	34.5	6	0.2
143	1,255	20	77	39	1	77.2	51.3	32.4	1.3	1.3	1,510	37.3	15	0.3
4,704	7,605	42	865	745	35	98.2	89.7	70.7	0.5	4.0	7,772	74.2	15	0.1
26	407	...	8	5	...	89.0	62.5	22.0	...	...	639	34.1	13	0.6
80	423	5	123	69	39	91.3	73.4	31.7	1.0	20.3	442	28.5	5	0.3
57	668	...	55	12	15	88.0	39.0	39.8	...	27.2	671	29.3	...	...
374	1,181	2	66	48	...	98.1	72.7	43.8	0.1	...	1,253	44.8	5	0.1
128	699	2	10	6	...	89.1	60.0	58.7	0.2	...	846	70.4	12	0.9
204	1,237	89	120	30	26	95.3	31.9	29.1	6.4	21.6	1,776	40.7	66	1.5
234	1,275	11	166	50	54	84.7	40.2	32.4	0.7	32.5	1,455	36.3	...	...
78	853	...	313	165	...	61.7	52.7	29.4	...	...	1,790	51.7	3	0.08
87	417	2	11	10	...	96.5	50.9	42.5	0.4	...	380	37.7	...	...
25,932	103,242	1,693	33,668	21,915	4,471	94.0	75.0	51.7	1.5	13.3	119,112	49.1	1,029	0.4
605,324	1,184,789	42,618	72,401	48,678	7,157	87.4	74.6	32.1	3.0	9.9	1,102,965	28.7	22,248	0.5

which are exhibited separately in statement No. III.
 statement No. III, unknown cases have not been taken into account.

subordinates is excluded.

APPENDIX.

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APPENDIX.

ΔΑΦΝΟΚΑΤΑΙΟΝ ΕΠΙΣΤΡΩΣ.

33

A--VACCINE DEPARTMENT.

Expenditure.																
Number.	Districts.	Circles.	Inspector of Vaccination and Deputy Sanitary Commissioner.	Deputy Inspectors.			Vaccinators.				Clerks.		Fees, &c.		Total pay of establishment.	
				Pay.	First class.	Second class.	Pay.	First class.	Second class.	Probationers.	Pay.	Number.	Ivy.	Number.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
			RS. A. P.				RS. A. P.				RS. A. P.		RS. A. P.		RS. A. P.	
22	Guntur	Quair circle	...	...	1	...	911 4 10	5	7	7	2,097 13 1	1	105 9 6	1	83 1 0	3,197 12 5
23		Narasapet circle	...	...	...	...	566 9 9	3	3	3	1,309 6 7	1	98 12 9	1	82 12 5	1,997 9 9
		Total	...	...	1	1	1,417 14 7	8	10	10	3,407 3 8	2	204 6 3	2	165 13 5	5,195 5 11
		Cost of lymph	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of district	...	...	1	1	1,417 14 7	8	10	10	3,407 3 8	2	204 6 3	2	165 13 5	5,195 5 11
24	Kurnool	Cumbum circle	...	...	1	...	935 15 4	4	4	4	1,133 12 5	...	...	1	91 0 0	2,181 11 9
25		Kurnool do.	...	...	1	...	834 15 1	4	4	4	1,212 11 6	...	...	1	84 0 0	2,161 10 7
		Total	...	...	2	...	1,769 14 5	8	8	8	2,345 7 11	...	...	2	175 0 0	4,343 6 4
		Cost of lymph	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of district	...	...	2	...	1,769 14 5	8	8	8	2,345 7 11	...	...	2	175 0 0	4,343 6 4
26	Madras	Dindigul circle	...	...	1	...	568 0 0	3	9	2	1,763 2 3	1	87 9 3	1	72 9 3	2,321 4 9
27		Madras do.	...	...	1	...	630 0 0	5	11	2	1,543 1 3	1	...	1	64 10 4	2,237 11 7
28		Paranazudi do.	...	...	1	...	646 12 7	6	9	2	2,006 12 8	...	...	1	48 0 0	3,301 9 1
29		Tirumangalam circle	...	...	1	...	334 0 0	4	5	2	1,246 12 1	1	79 5 8	1	56 3 2	1,856 4 11
		Total	...	...	2	2	2,258 12 5	18	34	8	7,199 12 3	3	168 14 11	4	241 6 9	9,863 14 4
		Cost of lymph	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of district	...	...	2	2	2,258 12 5	18	34	8	7,199 12 3	3	168 14 11	4	241 6 9	9,863 14 4

[illegible]

A—VACCINE DEPARTMENT.

STATEMENT No. II showing the Cost of the Department in the Madras Presidency during the official year 1904-1905—continued.

Expenditure.																
Districts.	Number.	Circles.	Inspector of Vaccination and Deputy Sanitary Commissioner.	Pay.	Deputy Inspector.		Vaccinators.			Clerk.		Peons, &c.		Total pay of establishment.		
					First class.	Second class.	Pay.	First class.	Second class.	Preceptors.	Pay.	Number.	Pay.		Number.	
	3		4	5	6	7	8	9	10	11	12	13	14	15	16	17
South Arcot.	44	Cuddalore circle ...	...	Rs. A. P.	1	...	720 0 0	7	7	2	2,465 15 3	...	Rs. A. P.	1	93 0 0	Rs. A. P.
	45	Viduthachalam circle ...	...	...	...	...	503 7 2	3	3	1	1,232 7 2	...	...	1	104 0 0	3,281 15 3
	46	Tiruvannamalai do. ...	...	...	...	...	480 0 0	4	4	1	1,512 11 3	...	...	1	84 0 0	1,839 14 4
		Total ...	...	...	1	2	1,703 7 2	14	16	4	5,211 1 8	...	...	3	284 0 0	2,076 11 3
		Cost of lymph ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Canara.	47	Total of district ...	...	...	1	2	1,703 7 2	14	16	4	5,211 1 8	...	...	3	284 0 0	7,198 8 10
	48	Northern circle ...	...	...	1	...	873 14 4	3	3	5	3,124 2 0	1	112 8 0	1	96 14 11	4,207 7 3
		Kasaragod do. ...	...	...	...	1	476 2 1	3	4	4	2,342 8 8	1	180 0 0	1	80 4 3	3,078 13 0
		Total ...	...	...	1	1	1,350 0 5	6	10	9	5,466 10 8	2	292 3 0	2	177 3 2	7,286 6 3
		Cost of lymph ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tanjore.	49	Total of district ...	...	...	1	1	1,350 0 5	6	10	9	5,466 10 8	2	292 3 0	2	177 3 2	7,286 6 3
	50	Tanjore circle ...	...	...	1	...	840 0 0	2	10	1	1,975 8 3	...	...	1	23 8 7	2,800 1 4
	51	Nagapattinam do. ...	...	...	...	1	480 0 0	3	9	1	1,792 10 10	...	...	1	64 0 0	2,856 10 10
		Pattukkottai do. ...	...	...	...	1	480 0 0	2	7	1	1,242 13 9	...	...	1	84 0 0	1,806 13 9
		Total ...	...	...	1	2	1,800 0 0	8	26	3	5,012 1 4	...	...	3	251 8 7	7,063 9 11
		Cost of lymph ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of district ...	...	...	1	2	1,800 0 0	8	26	3	5,012 1 4	...	...	3	251 8 7	7,063 9 11

APPENDIX.

VACCINATION RETURNS.

52	Tinnevely.	Serillipattur circle ...	...	...	1	1	378 1 0	3	5	2	1,304 3 5	...	...	1	72 0 0	1,754 4 5
53		Sémadéri circle ...	...	...	1	...	480 0 0	3	3	4	1,175 7 11	...	...	1	72 0 0	1,727 7 11
54		Tinnevely do. ...	...	...	1	...	840 0 0	4	7	4	1,441 1 1	...	...	1	75 1 8	2,356 2 9
		Total ...	...	...	1	2	1,698 1 0	10	15	10	3,920 12 5	...	...	3	219 1 8	5,837 15 1
		Cost of lymph ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of district ...	...	...	1	2	1,698 1 0	10	15	10	3,920 12 5	...	...	3	219 1 8	5,837 15 1
55	Tritchinopoly.	Tritchinopoly circle ...	...	...	1	...	991 15 0	5	7	2	1,807 11 6	1	120 0 0	1	72 0 0	2,891 10 6
56		Ariyalur do. ...	...	...	1	...	577 4 9	3	5	2	1,176 1 8	1	75 2 2	1	84 0 0	1,912 8 7
		Total ...	...	...	1	1	1,569 3 9	8	12	4	2,983 13 2	2	195 2 2	2	156 0 0	4,904 3 1
		Cost of lymph ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of district ...	...	...	1	1	1,569 3 9	8	12	4	2,983 13 2	2	195 2 2	2	156 0 0	4,904 3 1
57	Vizagapatnam.	Guntur circle ...	...	...	1	...	394 13 5	1	2	1	472 5 0	...	...	1	70 9 7	637 12 9
58		Zamindari vaccinators ...	...	...	1	...	608 0 0	...	4	...	1,035 3 10	...	...	1	77 0 0	1,863 3 10
		Jeyore circle ...	...	...	1	...	...	...	5	2	677 13 5	...	...	...	...	677 13 5
		Zamindari vaccinators ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of IIIH tracts ...	...	...	1	1	1,002 13 5	3	16	4	2,690 6 8	...	...	2	147 9 7	3,960 13 8
59	Vizagapatnam.	Vizagapatnam circle ...	...	...	1	...	480 0 0	6	5	4	1,600 8 9	1	66 7 3	1	84 0 0	2,521 0 0
		Government vaccinators ...	...	...	...	...	...	...	1	...	92 3 1	...	...	...	...	92 3 1
		Gudem hills ...	...	...	1	...	840 0 0	7	9	6	2,756 13 7	1	81 11 11	1	84 0 0	3,782 9 6
60		Vizagapatnam circle ...	...	...	2	2	2,382 13 5	16	31	14	7,430 0 1	2	148 3 2	4	315 9 7	10,276 10 3
		Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Cost of lymph ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of district ...	...	...	2	2	2,382 13 5	16	31	14	7,430 0 1	2	148 3 2	4	315 9 7	10,276 10 3
		Grand Total ...	1	11,562 3 7	32	27	38,507 14 3	230	390	129	98,779 12 11	23	2,531 13 3	59	4,678 4 7	1,55,860 0 7
		Cost of lymph ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Grand Total of districts ...	1	11,302 3 7	32	27	38,507 14 3	230	390	129	98,779 12 11	23	2,531 13 3	59	4,678 4 7	1,55,860 0 7

A—VACCINE DEPARTMENT.

STATEMENT No. 17 showing the Cost of the Department in the Madras Presidency during the official year 1904-1905—continued.

Number—col.	Districts—cont.	Circles—cont.	Expenditure—cont.				Paid from				Total.	Number of all successful vaccinations and re-vaccinations.	Average cost of each successful case.
			Travelling allowance.	Contingencies.	Total cost.	Imperial funds.	Provincial funds.	Local funds.	Municipal funds.	Zemindars.			
			18	19	20	21	22	23	24	25	26	27	28
44	South Arcot.	Candalore circle ...	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.
45		Vridhachalam circle ...	285 1 4	485 8 0	4,042 3 7	...	720 0 0	3,322 3 7	...	...	4,042 3 7	24,053	0 2 7
46		Tiravannamalai do. ...	210 2 0	251 9 4	2,331 9 8	...	638 15 3	2,692 10 5	...	...	2,331 9 8	12,173	0 3 0
46		Total ...	345 11 3	537 14 2	2,960 4 8	...	688 15 3	2,272 2 11	...	...	2,960 4 8	18,430	0 2 7
	South Canara.	Cost of lymph ...	820 14 7	1,314 10 6	9,334 1 11	...	2,047 1 0	7,287 0 11	...	...	9,334 1 11	55,557	0 2 8
		Total of district ...	...	2,613 7 5	2,043 7 5	...	2,047 1 0	2,048 7 5	...	...	2,048 7 5	...	...
47		Northern circle ...	890 7 5	248 8 2	5,346 4 10	...	872 14 4	4,472 8 0	...	...	5,346 4 10	18,500	0 4 4
48		Kannur do. ...	689 11 11	161 2 2	3,229 13 1	...	775 15 5	3,153 13 8	...	...	3,229 13 1	10,551	0 5 11
	Tanjore.	Cost of lymph ...	1,550 3 4	409 10 4	9,370 2 11	...	1,642 12 9	7,728 6 2	...	...	9,376 2 11	30,107	0 4 11
		Total of district ...	...	801 15 1	801 15 1	...	...	801 15 1	...	...	801 15 1	...	...
49		Tanjore circle ...	1,590 3 4	1,301 9 5	70,168 3 0	...	1,640 13 9	8,518 5 3	...	...	16,168 3 0	30,107	0 5 4
50		Pattukkottai do. ...	289 4 0	1,101 13 11	4,271 3 3	...	1,253 0 3	3,008 3 0	...	...	4,271 3 3	24,076	0 2 9
51	Tinnevely.	Cost of lymph ...	244 15 3	1,140 7 8	3,192 4 8	...	732 14 7	2,460 6 1	...	...	3,192 4 8	18,054	0 2 9
		Total ...	734 0 1	3,640 1 10	11,407 11 10	...	2,738 11 7	8,759 0 3	...	...	11,407 11 10	68,064	0 2 7
		Cost of lymph ...	...	...	...	...	...	...	...	...	...	...	...
		Total of district ...	764 0 1	3,640 1 10	11,407 11 10	...	2,738 11 7	8,759 0 3	...	...	11,407 11 10	68,064	0 2 7

APPENDIX.

VACCINATION RETURNS.

Number—col.	Districts—cont.	Circles—cont.	Expenditure—cont.				Paid from				Total.	Number of all successful vaccinations and re-vaccinations.	Average cost of each successful case.
			Travelling allowance.	Contingencies.	Total cost.	Imperial funds.	Provincial funds.	Local funds.	Municipal funds.	Zemindars.			
			18	19	20	21	22	23	24	25	26	27	28
52	Tinnevely.	Sivakumari circle ...	524 0 6	707 0 9	2,965 5 8	...	507 4 0	2,478 1 8	...	...	2,965 5 8	19,087	0 2 5
53		Sivakumari do. ...	442 14 9	683 7 9	2,853 14 5	...	545 8 0	2,308 6 5	...	...	2,853 14 5	23,805	0 1 10
54		Total ...	568 10 6	554 10 4	3,209 7 7	...	784 13 6	2,724 10 1	...	...	3,209 7 7	28,894	0 1 11
		Cost of lymph ...	1,566 9 9	1,945 2 10	9,348 11 8	...	1,837 9 6	7,511 2 2	...	...	9,348 11 8	72,476	0 2 0
	Trichinopoly.	Cost of lymph ...	...	2,126 15 10	2,126 15 10	...	...	2,126 15 10	...	...	2,126 15 10	...	...
55		Total of district ...	1,565 9 9	4,072 2 8	11,475 11 6	...	1,837 9 6	9,638 2 0	...	...	11,475 11 6	72,776	0 2 6
56		Trichinopoly circle ...	332 14 6	423 15 9	8,748 8 9	...	1,107 12 0	2,640 12 9	...	...	3,748 8 9	24,886	0 2 4
		Cost of lymph ...	340 15 6	392 11 5	2,616 3 6	...	754 15 6	1,861 4 0	...	...	2,616 3 6	20,093	0 2 1
	Vizagapatnam.	Cost of lymph ...	673 14 0	786 11 2	6,364 12 3	...	1,862 11 6	4,502 0 9	...	...	6,364 12 3	45,079	0 2 3
57		Total of district ...	...	1,295 10 2	1,295 10 2	...	...	1,295 10 2	...	...	1,295 10 2	...	...
58		Cost of lymph ...	673 14 0	2,083 5 4	7,661 6 5	...	1,862 11 6	5,798 10 11	...	...	7,661 6 5	45,079	0 2 8
59		Cost of lymph ...	473 7 6	130 7 0	1,541 10 6	...	1,541 10 6	...	...	...	1,541 10 6	3,737	0 6 7
60	Vizagapatnam.	Government vaccinators (Gurukhills).	253 12 0	23 14 4	755 10 9	...	...	...	...	...	755 10 9	4,133	0 3 1
		Cost of lymph ...	1,080 13 10	238 14 4	3,180 0 0	...	3,180 0 0	...	...	...	3,180 0 0	8,832	0 5 8
		Cost of lymph ...	398 1 6	...	1,073 14 11	...	...	...	...	...	1,073 14 11	6,756	0 2 6
		Total ...	2,216 2 10	426 3 8	6,543 4 2	...	4,071 10 6	...	...	...	6,543 4 2	23,458	0 4 5
	Vizagapatnam.	Cost of lymph ...	1,092 3 1	756 14 9	4,370 1 10	...	1,168 1 2	3,204 0 8	...	...	4,370 1 10	21,643	0 3 3
60		Cost of lymph ...	21 9 0	6 0 0	119 12 1	...	119 12 1	...	...	...	119 12 1	238	0 8 0
		Cost of lymph ...	1,089 11 4	427 14 9	5,310 3 7	...	1,041 15 0	4,268 4 7	...	...	5,310 3 7	31,226	0 2 9
		Total ...	4,419 10 3	1,647 1 2	10,343 5 8	...	6,199 6 9	7,472 5 3	...	...	18,343 5 8	76,805	0 3 5
	Grand Total.	Cost of lymph ...	...	2,642 8 1	2,642 8 1	...	...	2,642 8 1	...	...	2,642 8 1	...	...
		Total of district ...	4,419 10 3	4,289 9 3	18,985 13 9	...	6,969 6 9	10,114 13 4	...	...	18,995 13 9	70,565	0 3 11
		Grand Total ...	34,033 14 0	21,613 4 7	242,107 3 2	...	63,832 3 1	1,46,463 3 5	...	...	242,107 3 2	1,095,656	0 3 1
		Cost of lymph ...	...	29,735 4 3	20,732 4 3	...	...	20,735 4 3	...	...	29,735 4 3	...	...
	Grand Total of districts.	Cost of lymph ...	31,693 14 0	51,248 8 10	2,41,802 7 5	...	63,832 3 1	1,76,138 7 8	...	...	2,41,802 7 5	1,095,656	0 3 6

A--VACCINE DEPARTMENT.

[illegible][illegible]

+ Vaccination was performed by the Medical officer in charge.

A--VACCINE DEPARTMENT.

STATEMENT No. II showing the Cost of the Department in the Madras Presidency during the official year 1904-1905—continued.

[illegible]

APPENDIX.

VACCINATION RETURNS.

32	Mangalore	...	77	12	2	554	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</
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* In finding out the average cost of each successful case, the amount realized by vaccinating children at private residences and by way of fairs, viz., Rs. 50, has been deducted from the total cost.
† In finding out the average cost of each successful case, excluding the number of successful vaccinations (5,661) performed in the Natal and Mauritius Emigration depots and Penitentiary, the amount realized by sale of lymph, viz., Rs. 5,694-4-8, has been deducted from the total cost.
‡ Fees obtained from vaccination at private residences (Rs. 57-8-0) have been deducted from the total cost.
§ Vaccination fees and fines (Rs. 42) have been deducted from the total cost.

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B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1904-1905.

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 and secondary vaccinations.				Re-vaccination.	Percentage of successful cases excluding unknown.		Percentage of unknown cases to total cases.				
					Total.	Successful.				Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.
						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
Anantapur District.																
Anantapur	...	...	17	...	1	1	...	1	...	16	10	...	100.0	62.5	...	...
Bukkapatnam	...	...	3	...	...	...	...	...	...	3	3	...	100.0	100.0	...	...
Dharmavaram	...	...	21	...	5	...	5	5	...	16	15	...	100.0	93.7	...	...
Gooty	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hindapur	...	...	10	...	10	8	2	10	...	...	...	...	100.0	...	...	...
Kalyandrug	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madakasira	...	...	19	...	15	...	...	5	...	4	...	...	33.3	...	...	...
Pamidy	...	...	6	...	5	3	2	5	...	6	6	...	100.0	...	...	...
Penukonda	...	...	6	...	...	...	...	...	...	...	...	...	...	100.0	...	...
Tadipatri	...	...	28	...	12	...	...	5	4	16	...	16	62.5	...	33.3	100.0
Uravakonda	...	...	3	...	3	1	2	3	...	...	...	...	100.0	...	...	...
Yadiky	...	...	3	...	3	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	115	...	54	13	11	31	4	61	34	16	68.0	75.5	7.4	26.2
Bellary District.																
Addai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alur	...	...	...	...	...	...	...	...	...	41	41	...	...	100.0	...	...
Bellary	...	...	6	...	...	2	...	2	...	4	4	...	100.0	100.0	...	...
Bracepettah	...	...	22	...	22	22	...	22	...	...	...	...	100.0	...	...	...
Cowl Bazar	...	...	36	...	36	29	7	66	...	...	...	...	100.0	...	...	...
Hospet	...	...	3	...	3	1	2	3	...	...	...	...	100.0	...	...	...
Hadagally	...	...	18	...	11	3	2	8	1	7	3	3	80.0	75.0	9.1	42.8
Harpasahalli	...	...	13	...	18	...	...	15	1	...	...	...	88.2	...	5.5	...
Kudligi	...	...	5	...	...	...	...	...	...	5	3	2	...	100.0	...	40.0
Kosigi	...	...	8	...	8	...	6	6	...	...	...	...	75.0	...	...	...
Kumpli	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kayadurg	...	...	4	...	4	2	...	2	...	...	...	...	50.0	...	...	...
Siruguppa	...	...	60	...	60	35	11	66	...	...	...	...	76.6	...	...	...
Yemiganur	...	...	6	...	6	6	...	6	...	...	...	...	100.0	...	...	...
Total	...	...	227	...	170	100	28	146	2	57	51	5	86.9	98.0	1.2	8.8
Chingleput District.																
Chingleput	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Conjeevaram	...	...	34	...	...	...	...	...	...	34	7	23	...	63.6	...	67.6
Branch Dispensary, Conjeevaram.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cheyur	...	...	25	...	23	7	14	23	...	6	...	5	100.0	...	...	83.3
Madurantakam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nagalapuram	...	...	24	...	12	...	8	8	...	12	4	2	66.6	40.0	...	16.6
Ponnéri	...	...	6	...	...	...	...	...	...	6	4	...	...	66.6	...	...
Poonamallee	...	...	2	...	2	...	...	2	...	...	...	...	100.0	...	...	...
Palicat	...	...	13	...	13	3	8	12	...	...	...	...	92.3	...	...	...
Saidapet	...	...	51	...	22	8	5	31	...	59	31	10	95.4	63.2	...	16.9
Sathavedu	...	...	10	...	2	...	...	1	...	8	7	...	50.0	87.5	...	...
Sembiyam	...	...	11	...	11	3	7	11	...	...	...	...	100.0	...	...	...
Sriperumbudur	...	...	55	...	19	1	4	14	1	36	28	2	77.7	82.3	5.2	5.5
Tiruppurur	...	...	14	...	11	6	5	11	...	3	2	...	100.0	66.6	...	...
Tiruvallur	...	...	82	...	2	2	...	2	...	80	56	...	160.0	70.0	...	...
Tiruvottiyur	...	...	65	...	64	19	16	42	13	1	...	1	82.3	...	20.3	100.0
Utrammarur	...	...	20	...	18	7	...	17	...	2	1	...	94.4	50.0	...	...
Total	...	...	446	...	199	59	76	144	14	247	140	43	88.6	68.6	7.0	17.4
Coimbatore District.																
Aravankurichi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhavani	...	...	40	...	26	5	4	12	6	14	6	3	60.0	54.5	23.0	21.4
Coimbatore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gopichettipalayam	...	...	39	...	1	...	...	1	...	38	14	...	100.0	36.8	...	...

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1904-1905—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 and secondary vaccinations.					Re-vaccination.			Percentage of successful cases excluding unknown.		Percentage of unknown cases to total cases.	
					Total.	Successful.			Unknown.	Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.	Primary and Secondary vaccinations.	Re-vaccination.
						Under 1 year.	Over 1 and under 5 years.	Total of all ages.								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Coimbatore District —cont.																
Kangayam	...	...	27	...	1	...	...	1	...	26	20	3	100.0	56.9	...	11.5
Karur	...	...	53	...	4	...	2	4	...	53	9	31	...	40.9	...	58.4
Kollegal	...	...	14	...	4	...	1	4	...	9	9	...	100.0	100.0	...	...
Mettupalayam	...	...	14	...	5	...	...	5	...	66	23	26	66.6	57.5	25.0	39.3
Palladam	...	...	94	...	28	...	...	14	7	66	23	26	66.6	57.5	25.0	39.3
Perundurai	...	...	4	...	2	...	...	1	1	2	2	...	100.0	100.0	50.0	...
Pollachi, Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Satyamangalam	...	...	53	...	21	...	...	7	12	32	13	5	77.7	48.1	57.1	15.6
Udamalpet	...	...	75	...	14	1	2	7	7	61	39	14	100.0	82.9	50.0	22.9
Total	...	...	403	...	102	9	8	52	33	301	135	82	75.3	61.6	32.3	27.2
Cuddapah District.																
Badvel	...	...	127	...	85	36	47	84	...	42	38	...	98.8	90.4	...	...
Cuddapah	...	...	11	...	9	...	...	1	6	2	...	2	33.3	...	66.6	100.0
Jammalamadugu	...	...	63	...	36	8	...	8	...	24	11	...	66.6	45.8	...	...
Kadiri	...	...	11	...	7	...	...	5	...	4	2	...	71.4	50.0	...	...
Madanapalle	...	...	42	...	2	1	...	2	...	40	34	6	100.0	100.0	...	15.0
Pileru	...	...	2	...	1	...	1	1	...	1	...	1	100.0	...	...	100.0
Proddatur	...	...	30	...	4	3	1	4	...	26	26	...	100.0	100.0	...	...
Pulivendla	...	...	7	...	7	...	...	4	3	...	...	...	100.0	...	42.8	...
Razampet	...	...	34	...	...	...	...	...	...	34	21	...	...	31.7	...	...
Rayachoti	...	...	16	...	14	7	2	14	...	2	2	...	100.0	100.0	...	...
Siddhavattam	...	...	26	...	19	...	14	16	3	7	1	6	100.0	100.0	15.7	85.7
Voyalpad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vainapalle	...	...	26	...	26	7	5	13	...	...	...	...	50.0	...	...	...
Total	...	...	395	...	213	62	78	170	12	182	135	15	81.5	80.8	5.6	8.2
Ganjām District.																
Aska	...	...	213	...	217	51	106	175	10	26	8	7	84.5	42.1	4.6	26.9
Berhampur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Calingapatam	...	...	325	...	233	5	173	257	...	42	28	...	99.8	66.6	...	...
Chatrapur	...	...	97	...	96	2	70	88	6	1	1	...	97.7	100.0	6.2	...
Chicacole	...	...	37	...	12	4	4	8	...	25	22	...	66.6	88.0	...	...
Ganjām	...	...	301	...	225	17	181	206	4	76	72	...	93.2	94.7	1.7	...
Garabanda	...	...	126	...	126	6	58	69	25	...	...	...	68.3	...	19.8	...
Gopalpur	...	...	187	...	184	46	72	123	1	3	3	...	67.2	100.0	0.5	...
Jelchāpuram	...	...	268	...	268	90	162	252	1	...	...	...	87.8	...	0.3	...
Narasannapeta	...	...	267	...	265	60	135	225	10	2	...	...	85.2	...	3.7	...
Parlakimedi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Parashottapur	...	...	220	...	200	60	81	157	15	20	9	4	84.6	66.2	7.5	20.0
Russellkonda	...	...	431	...	221	21	138	198	6	...	...	...	88.0	...	2.5	...
Sompeta	...	...	278	...	267	128	96	237	2	11	4	...	89.0	36.3	0.7	...
Suradi	...	...	250	...	227	46	67	120	11	23	3	7	55.5	18.7	4.8	30.3
Tekkuli	...	...	312	...	305	92	124	225	2	7	5	...	74.2	71.1	0.6	...
Varanasi	...	...	216	...	216	20	92	157	4	...	...	...	74.0	...	1.8	...
Total	...	...	3,378	...	3,142	657	1,550	2,407	97	236	155	18	82.0	71.1	3.1	7.0
Gollāvari District.																
Amalapuram	...	...	90	...	6	...	...	6	...	84	57	...	100.0	67.8	...	...
Additigola	...	...	14	...	14	3	5	8	...	...	...	...	57.1	...	...	...
Bendamarthanka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hhadrachelunka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chotavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cocanada	...	...	24	...	8	6	...	6	...	16	2	14	75.0	100.0	...	87.5

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1904-1905—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.	Total.	Primary and secondary vaccinations.				Re-vaccination.			Percentage of successful cases excluding unknown.		Percentage of unknown cases to total cases.	
						Successful.				Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.
						Under 1 year.	Over 1 and under 6 years.	Total of all ages.	Unknown.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Giddavari District—cont.																
Cocanada, Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dowlaiswaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gothavaram	...	...	2	...	2	...	...	2	...	...	...	...	100.0	...	...	...
Kothapeta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Koonavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mundivaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mandapeta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peddipatnam	...	...	10	...	...	...	...	...	...	10	9	1	...	100.0	...	...
Pithapuram	...	...	16	...	13	1	2	4	3	3	1	1	40.0	50.0	23.0	83
Polavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ramaswamidrapuram	...	...	65	...	65	...	...	23	42	...	...	...	100.0	...	64.6	...
Bozole	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuni	...	...	...	...	27	...	...	7	20	8	6	1	100.0	55.7	74.0	12
Total	...	...	256	...	135	10	13	56	65	121	75	17	80.0	72.1	45.1	11
Kistna District.																
Avanigadda	...	...	110	...	108	12	65	80	...	2	...	...	74.0	...	...	...
Bhimavaram	...	...	1	...	1	...	...	...	1	...	...	...	...	...	100.0	...
Bezwa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chintalapudi	...	...	30	...	30	7	21	30	...	...	...	...	100.0	...	...	...
Ellore	...	...	24	...	24	1	22	24	...	...	...	...	100.0	...	...	...
Gudivada	...	...	29	...	29	3	8	23	...	...	...	...	79.3	...	...	...
Jaggayyapeta	...	...	161	...	161	74	22	101	...	14	...	...	54.0	...	9.2	...
Kykalur	...	...	64	...	62	14	21	44	2	2	2	...	73.3	100.0	8.2	...
Kovuru	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mylavaram	...	...	57	...	57	9	25	39	2	...	...	...	70.9	...	7.5	...
Masulipatam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Masulipatam, Women and Children Dispensary.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nandigama	...	...	14	...	13	...	...	...	...	1	1	...	100.0	100.0	...	...
Narasapur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nidadavolu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nazim	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pongalapudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pothavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tanaka	...	...	45	...	41	...	5	20	6	4	4	...	57.1	100.0	14.6	...
Tiravur	...	...	55	...	55	9	25	44	2	...	...	...	83.0	...	3.6	...
Ashtapeta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	684	...	638	148	233	501	27	16	7	...	78.1	43.7	4.0	...
Guntur District.																
Addanki	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bapatla	...	...	156	...	89	30	30	72	4	67	12	43	84.7	50.0	4.4	64
Chirala	...	...	160	...	135	15	84	105	...	25	21	...	77.7	84.0	...	...
Dachapalle	...	...	50	...	50	24	8	33	...	...	...	...	66.0	...	...	...
Guntur, Municipal Hospital.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guntur, Municipal Branch Dispensary.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gurazala	...	...	143	...	131	43	44	102	...	11	2	...	77.8	19.1	...	...
Kottapattam	...	...	7	...	7	3	3	7	...	...	...	...	100.0	...	...	...
Macherla	...	...	90	...	90	34	19	50	...	...	...	...	65.6	...	...	...
Narasarnopet	...	...	40	...	38	14	15	29	...	3	...	...	76.3	...	...	...
Ngole	...	...	20	...	...	...	...	...	...	20	19	...	...	95.0	...	...
Rajalle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1904-1905—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 and secondary vaccinations.						Re-vaccination.			Percentage of successful cases excluding unknown.		Percentage of unknown cases to total cases.	
					Total.	Successful.			Unknown.	Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.	
						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	
Guntur District—cont.																	
Sattenapalle	...	...	47	...	48	17	7	25	1	4	...	...	50.5	...	2.3	...	
Tenali	...	...	129	...	125	14	61	75	1	4	2	...	60.4	50.0	0.8	...	
Vinukonda	...	...	149	...	130	78	22	100	7	19	15	3	81.3	93.7	5.3	15.7	
Total	...	...	990	...	836	278	233	607	13	152	71	48	73.5	66.9	1.5	30.2	
Kurnool District.																	
Allagadda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Atmakur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Cumbum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dhone	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Giddalore	...	...	25	...	25	1	1	10	...	6	...	...	52.8	...	24.0	...	
Kalava	...	...	3	...	3	2	...	2	...	1	...	...	100.0	...	33.3	...	
Kodamar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Koilkuntla	...	...	23	...	...	...	...	...	...	23	14	...	...	60.3	...	...	
Kurnool	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Markapur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Madikera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Nandyal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Nandikotkur	...	...	19	...	...	...	...	...	...	19	15	...	...	78.9	...	...	
Owki	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pattikonda	...	...	15	...	15	2	5	14	...	...	...	...	93.3	...	...	...	
Total	...	...	85	...	43	5	6	26	7	42	29	...	72.2	69.0	16.2	...	
Madras Town.																	
Black Town, North Side Hospital for Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Native Infirmary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Triplacano Dispensary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Madura District.																	
Andipati	...	...	9	...	6	1	2	3	...	3	...	...	50.0	...	...	...	
Aruppacotta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bidindayakkannur	...	...	15	...	13	3	10	13	...	2	2	...	100.0	100.0	...	...	
Butlagundu	...	...	21	...	21	7	11	21	...	...	...	...	100.0	...	...	...	
Chattrapatti	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Davakottai	...	...	7	...	7	...	3	3	...	...	...	...	42.8	...	...	...	
Dindigul	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dindigul, Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Kamudi	...	...	7	...	7	1	2	3	...	2	...	...	60.0	...	23.5	...	
Kilakkarai	...	...	5	...	5	...	5	5	...	...	...	...	100.0	...	...	...	
Kodakkannal	...	...	118	...	106	90	16	106	...	12	12	...	100.0	100.0	...	...	
Kanniyadi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Madura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Madura Branch Dispensary.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Madura, Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Mankmadurai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Melur	...	...	31	...	...	...	...	...	...	34	32	2	...	100.0	...	5.0	
Melakalattur	...	...	20	...	4	...	...	4	...	16	15	1	100.0	100.0	...	6.2	
Nilakkottai	...	...	75	...	35	11	6	35	...	40	40	...	100.0	100.0	...	...	
Nattam	...	...	5	...	5	...	...	...	...	...	...	...	...	...	...	...	
Palni	...	...	63	...	21	9	3	12	...	3	42	18	4	66.6	47.3	14.2	

B—DISPENSARY VACCINATION.

[illegible]

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1904-1905—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 and secondary vaccinations.				Re-vaccination.			Percentage of successful cases excluding unknown.		Percentage of unknown cases to total cases.		
					Total.	Successful.			Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.	
						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
Tanjore District—cont.																
Tiruvadamardur	...	...	32	...	27	1	14	16	...	5	...	...	50.2	...	...	...
Tirupponduy	...	...	36	...	30	1	8	12	...	2	...	...	35.7	...	13.8	...
Enagudy	...	...	55	...	53	5	36	51	...	2	...	...	100.0	100.0	3.7	...
Total	...	...	1,308	...	854	109	354	736	...	34	372	3	85.7	82.4	3.9	0.6
Tinnevely District.																
Ambasamudram	...	...	95	...	91	60	17	80	...	3	4	4	99.0	100.0	3.3	...
Christianagaram	...	...	50	...	30	11	7	31	...	...	...	...	62.0	...	...	...
Ettayapuram	...	...	63	...	63	14	20	40	...	...	...	...	69.4	...	...	...
Nagapuram	...	...	56	...	52	24	15	47	...	3	4	3	95.9	76.0	5.7	...
Nanguneri	...	...	19	...	11	...	...	5	...	1	5	...	50.0	...	100.0	...
Nazareth	...	...	7	...	5	...	...	3	...	1	2	1	75.0	100.0	20.0	50.0
Ottapidaram	...	...	61	...	31	15	10	25	...	20	41	4	50.6	68.7	20.0	20.0
Palamcottah	...	...	11	...	...	...	...	...	...	11	9	...	81.8	...	...	...
Panagudy	...	...	45	...	42	20	12	31	...	3	3	...	100.0	100.0	16.0	...
Radhapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sankaranajinarkoil.	...	...	57	...	27	8	...	26	...	20	22	...	86.2	73.3	...	...
Sattur	...	...	88	...	81	29	31	78	...	7	4	2	97.5	50.0	1.2	28.5
Sawyerapuram	...	...	63	...	63	14	25	48	...	1	...	...	92.3	...	1.8	...
Sermadevi	...	...	62	...	59	37	19	59	...	3	3	...	100.0	100.0	...	...
Sivagiri	...	...	26	...	26	...	18	26	...	...	...	...	100.0	...	...	...
Sriyakkulam	...	...	60	...	30	7	...	26	...	26	21	8	92.3	75.0	6.6	32.2
Srivilliputtur	...	...	61	...	7	...	...	5	...	1	34	16	83.3	82.4	14.2	29.6
Tenkasi	...	...	105	...	105	46	37	89	...	7	...	...	90.8	...	6.6	...
Tinnevely	...	...	8	...	8	1	...	1	...	...	...	...	12.5	...	...	...
Tirukarangudy	...	...	41	...	40	22	12	36	...	1	1	...	95.3	...	2.5	...
Tiruchendur	...	...	50	...	50	39	6	45	...	2	3	1	88.3	100.0	9.5	66.6
Tuticorin	...	...	21	...	5	2	...	4	...	19	13	...	80.0	68.4	...	...
Virakeralampudur	...	...	47	...	47	10	13	29	...	...	...	...	61.7	...	...	...
Virudupatti	...	...	76	...	76	56	14	76	...	...	...	...	93.3	...	...	...
Kulasakarapattam	...	...	19	...	16	...	13	13	...	...	...	...	81.2	...	...	...
Female Dispensary.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vannarpet	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mengunapuram	...	...	36	...	36	16	12	33	...	...	...	...	91.6	...	...	...
Idayangudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	1,218	...	1,010	431	297	853	...	34	202	129	86.6	78.6	3.0	18.3
Trichinopoly District.																
Ariyalur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erungalore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Iluppur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jeyankondasolapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kattupattur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Koittalai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lalgudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manappuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Masiri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Perambalur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Srirangam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trichinopoly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Turaiyur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvanakurichi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oriyur Jubilee Dispensary.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	5	...	2	...	2	...	...	3	...	3	100.0	...	...	100.0

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1904-1905—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 and secondary vaccinations.					Re-vaccination.			Percentage of successful cases excluding unknown.		Percentage of unknown cases to total cases.	
					Total.	Successful.			Unknown.	Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Revaccination.	Primary and secondary vaccinations.	Revaccination.
						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
Vizagapatam District.																
Anakapalle	...	...	47	...	...	...	...	...	...	47	18	22	...	72.0	...	46.8
Bimlipatnam	...	...	11	...	1	...	...	...	...	1	10	2	...	100.0	100.0	50.0
Bobbili	...	...	16	...	16	...	...	10	...	...	...	...	100.0	...	37.5	...
Dr. Goeha Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chitrapuram	...	...	23	...	5	...	...	5	...	17	14	...	100.0	82.3	...	...
Chidambaram	...	...	27	...	4	...	3	3	...	23	10	6	75.0	58.8	...	26.0
Gajapatiagaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Juni	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kurupam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nakkapalli	...	...	6	...	6	...	4	4	...	...	...	...	...	...	16.6	...
Narasapuram	...	...	8	...	3	...	...	...	...	3	5	1	3	50.0	100.0	60.0
Palkonda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Parvatipuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pondur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Razam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saler	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Srangavarapukota	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Veeraghatham	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizagapatam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizagapatam Female Hospital.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizianagaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizianagaram Hospital.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizianagaram	...	...	16	...	5	1	2	5	...	11	5	5	100.0	83.3	...	45.4
Waltair	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellamanchilli	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	153	...	40	1	9	27	11	113	50	44	93.1	72.4	27.5	38.9
Grand Total	...	...	12,813	...	8,601	2,220	3,263	7,014	467	8,576	2,336	795	83.1	72.5	5.6	20.5

STATEMENT No. IV showing the number of persons primarily vaccinated and the numbers of those persons who were successfully vaccinated in the Madras Presidency in each of the undermentioned years.

[illegible]

N. B.--The information for the years commencing from 1897-98 includes secondary vaccination also.

APPENDIX.

VACCINATION RETURNS

STATEMENT No. V showing particulars of Vaccinations verified by Inspecting Officers during 1904-1905.

[illegible]

N.B.—In the above table the statistics relating to the Madras Municipality have not been shown, as complete information could not be obtained. Includes cases performed in Madras City and Cantonments.

N.B.—In the above table, the statistics relating to the Madras N. includes cases performed in Madras City and Cantonments,

STATEMENT No. VI showing Statistics relating to the number of children under one year of age in Municipalities available for vaccination and the number of successful operations performed on them. (G.O., No. 960 L, M.S., dated 31st May 1900.)

Municipalities.	Number of births available for vaccination during the year 1904-1905.	Number of deaths amongst children under one year during the year.	Number available for vaccination after deducting the numbers who have died as shown in col. 3.	Number of successful vaccinations on children under one year during the year ending March 1905.	Date of extension of compulsory vaccination to Municipalities.
1	2	3	4	5	6
Adoni ...	842	248	594	847	1st Dec. 1886.
Anantapur ...	280	53	226	107	1st Jan. 1886.
Anakapalle ...	726	91	635	511	1st Nov. 1891.
Bellary ...	1,204	275	929	679	1st Jan. 1891.
Borhampur ...	647	102	545	477	15th April 1891.
Bezwada ...	1,048	279	769	570	1st May 1892.
Bimlipatam ...	352	58	294	217	1st Jan. 1894.
Calicut ...	2,729	538	2,191	1,529	1st Oct. 1891.
Cananore ...	1,102	178	924	674	1st June 1891.
Chicacole ...	561	95	466	352	1st Dec. 1890.
Chidambaram ...	641	152	489	341	1st July 1887.
Chingleput ...	476	112	364	250	1st April 1897.
Cochin ...	702	161	541	594	1st Jan. 1894.
Ocanada ...	1,560	270	1,290	753	1st June 1890.
Coimbatore ...	1,275	213	1,062	616	1st Jan. 1889.
Conjeevaram ...	1,498	340	1,158	748	1st Jan. 1891.
Coomoor ...	251	34	217	90	1st April 1887.
Cuddalore ...	2,147	573	1,574	916	1st Aug. 1890.
Cuddapah ...	584	64	520	345	15th July 1886.
Dindigul ...	1,116	266	850	545	16th July 1888.
Ellore ...	1,386	351	1,035	976	1st June 1886.
Erode ...	608	108	500	241	1st April 1888.
Gudiyattam ...	831	135	696	424	1st June 1891.
Guntur ...	1,344	314	1,030	780	1st Jan. 1889.
Karur ...	605	139	466	220	1st Sept. 1893.
Kodaikanal ...	87	14	73	28	1st April 1900.
Kumbakonam ...	1,834	446	1,388	639	1st Aug. 1889.
Kurnool ...	1,065	227	838	555	1st July 1889.
Madura ...	3,534	1,025	2,509	1,618	1st Jan. 1891.
Mannargudi ...	678	156	522	374	1st Dec. 1890.
Mangalore ...	1,016	182	834	494	1st Sept. 1891.
Masulipatam ...	1,172	236	936	649	1st May 1888.
Mavayaram ...	840	175	665	389	1st Oct. 1886.
Nandyal ...	503	108	395	285	1st Jan. 1900.
Nagapattam ...	1,926	373	1,553	1,161	1st July 1886.
Nellore ...	967	171	796	365	1st Aug. 1888.
Ongole ...	501	105	396	285	1st Dec. 1885.
Ootacamund ...	661	97	564	411	1st July 1887.
Palamcottah ...	1,728	406	1,322	1,022	1st May 1886.
Palghat ...	1,863	437	1,426	1,009	1st Jan. 1893.
Palakkudi ...	713	144	569	467	1st Dec. 1890.
Periyakulam ...	840	185	655	526	1st Feb. 1891.
Palni ...	632	164	468	286	1st Dec. 1891.
Rajahmundry ...	1,360	315	1,045	734	1st Jan. 1886.
Salom ...	2,381	663	2,221	1,275	1st Mar. 1891.
Srirangam ...	685	88	597	470	1st July 1888.
Srivillipattur ...	1,267	219	1,048	809	1st Jan. 1893.
Tanjore ...	2,423	517	1,906	835	1st July 1893.
Tellicherry ...	1,005	234	771	655	15th Jan. 1892.
Tinnevely ...	1,898	443	1,255	815	1st July 1886.
Trichinopoly ...	2,140	577	2,503	1,597	1st Aug. 1890.
Tirupattur ...	633	117	516	242	1st April 1891.
Tirupathi ...	447	77	370	226	1st Mar. 1890.
Tiruvannamalai ...	785	189	596	396	15th Dec. 1897.
Tuticorin ...	850	205	645	452	1st May 1892.
Vaniyambadi ...	631	163	468	318	1st May 1890.
Vellore ...	1,448	154	1,294	832	1st Jan. 1887.
Vizagapatam ...	1,470	276	1,194	751	1st Aug. 1890.
Vizianagaram ...	1,191	225	966	404	1st Jan. 1891.
Walajapet ...	390	84	306	232	20th June 1892.
Total ...	67,295	14,859	52,436	35,199	

STATEMENT No. VII showing Inspection Work done by Deputy Inspectors during the year 1904-1905.

Circles.	Number of inspecting officers.		Number of villages visited.		Total number of persons vaccinated.	Number of days spent on inspection duty.	Number of cases verified.		Total number of cases inspected by deputy inspectors of all sorts.	Total number of successful cases to total number inspected as reported by deputy inspectors.	Percentage of successful cases to total number inspected as reported by a deputy inspector.	Proportion per cent. of inspection to total number vaccinated.	
	First-class deputy inspectors.	Second-class deputy inspectors.	First-class deputy inspectors.	Second-class deputy inspectors.			First-class deputy inspectors.	Second-class deputy inspectors.				First-class deputy inspectors.	Second-class deputy inspectors.
Anantapur ...	1	...	389	...	15,476	271	8,394	...	8,394	7,307	87.0	54.2	...
Penikonda ...	1	1	352	...	11,377	249	...	7,149	7,149	6,062	84.7	...	62.8
Bellary ...	1	...	408	...	20,579	293	8,677	...	8,677	7,375	86.0	42.1	...
Harpanahalli ...	1	1	516	...	11,189	318	...	9,492	9,492	8,931	94.1	...	84.8
Chingleput ...	1	...	620	...	23,599	242	12,896	...	12,896	12,022	93.2	24.6	...
Saidapet ...	1	...	602	...	20,187	231	12,524	...	12,524	11,810	94.2	62.0	...
North Coimbatore ...	1	...	645	...	18,043	257	9,590	...	9,590	8,281	86.3	53.1	...
South Coimbatore ...	1	1	...	349	21,558	240	...	11,595	11,595	10,356	89.3	...	59.7
East Coimbatore ...	1	...	247	...	29,002	212	11,331	...	11,331	9,585	84.5	39.0	...
Cuddapah ...	1	...	571	...	13,117	273	8,981	...	8,981	7,563	84.2	68.4	...
Madanapalle ...	1	1,253	...	...	19,345	246	10,419	...	10,419	9,877	94.8	59.9	...
Siddhavattam ...	1	...	819	...	9,868	265	6,241	...	6,241	5,304	84.9	43.2	...
Chitrapur ...	1	...	616	...	22,618	161	13,584	...	13,584	12,400	91.2	60.0	...
Chicacole ...	1	...	375	...	20,432	311	12,689	...	12,689	11,672	89.0	63.3	...
Ganjam Hill Tracts ...	1	...	584	...	15,234	172	10,322	...	10,322	9,625	93.2	67.7	...
Russellkonda ...	1	...	792	...	19,362	287	...	15,748	15,748	14,063	89.3	...	81.3
Pithapuram ...	1	1	551	...	22,711	267	...	23,019	23,019	16,231	70.7	...	101.3
Rajahmundry ...	1	...	559	...	31,670	253	22,263	...	22,263	15,494	69.5	70.2	...
Gokkavari Agency ...	1	...	610	...	7,807	278	...	7,794	7,794	5,200	67.9	...	99.8
Ellore Circle ...	1	...	515	...	35,386	240	29,469	...	29,469	14,829	72.4	53.3	...
Masulipatam ...	1	...	518	...	36,479	270	19,621	...	19,621	13,029	66.4	63.8	...
Guntur ...	1	...	296	...	42,370	267	28,311	...	28,311	19,236	67.9	66.9	...
Narasaraopet ...	1	...	223	...	19,485	307	...	12,336	12,336	9,284	70.1	...	67.0
Cumbum ...	1	...	289	...	15,722	265	9,637	...	9,637	8,490	88.3	59.7	...
Kurnool ...	1	254	...	...	19,068	254	12,505	...	12,505	9,726	78.6	64.9	...
Madras ...	1	4	...	679	38,737	302	4,379	13,893	13,893	13,791	97.9	47.3	...
Dindigul ...	1	1	...	...	25,434	193	10,896	...	11,209	9,928	88.0	...	41.0
Madura ...	1	...	490	...	23,488	188	10,265	...	10,265	9,654	93.6	46.4	...
Paramagudi ...	1	...	510	...	23,278	280	10,265	...	10,265	9,209	90.3	38.8	...
Tiruvannamalai ...	1	...	213	...	15,056	169	...	10,493	10,493	9,592	91.4	...	65.3
Tellicherry ...	1	...	173	...	29,328	234	19,701	...	13,701	13,350	97.5	45.7	...
Calicut ...	1	...	123	...	36,720	246	...	10,805	10,805	9,746	90.1	...	29.4
Paigat ...	1	...	183	...	35,474	274	...	20,156	20,156	16,049	94.4	...	56.8
Central (Nellore) ...	1	...	249	...	14,555	210	...	8,895	8,895	7,355	82.6	...	59.3
Southern (Nellore) ...	1	...	460	...	12,838	266	...	8,909	8,909	7,378	81.9	...	70.1
Northern (Nellore) ...	1	...	449	...	13,304	235	12,006	...	12,006	10,016	79.4	65.3	...
Nilgiris ...	1	1	311	...	3,325	192	...	2,416	2,416	2,375	98.3	...	66.6
Chittoor ...	1	1,205	...	...	19,382	263	14,000	...	14,000	13,279	90.9	75.3	...
Vellore ...	1	...	420	...	12,164	221	8,794	...	8,794	7,784	88.5	51.2	...
Karvetnagar ...	1	...	919	...	15,893	285	...	13,578	13,578	12,986	95.4	...	88.2
Northern (Salem) ...	1	...	285	...	14,674	197	...	7,603	7,603	6,865	90.3	...	51.8
Salem Circle (Central) ...	1	...	572	...	20,604	220	12,520	...	12,520	10,565	84.6	60.7	...
Namakkal ...	1	...	237	...	26,021	222	...	14,123	14,123	12,517	88.6	...	52.4
Cuddalore ...	1	...	274	...	33,068	171	10,112	...	10,112	8,548	84.5	30.5	...
Vridhachalam ...	1	...	424	...	16,519	236	...	10,505	10,505	9,417	89.6	...	63.5
Tiruvannamalai ...	1	...	356	...	22,523	238	...	11,714	11,714	10,580	90.3	...	52.0
Northern (South Canara) ...	1	...	287	...	22,180	246	12,360	...	12,360	10,766	87.1	55.7	...
Kannur (South Canara) ...	1	...	169	...	13,528	264	...	8,213	8,213	6,273	76.1	...	60.9
Tanjore ...	1	...	509	...	25,482	296	16,098	...	16,098	16,028	99.6	66.7	...
Nagapattinam ...	1	...	465	...	27,234	281	...	14,566	14,566	14,166	97.1	...	73.5
Palakkottai ...	1	...	511	...	19,935	288	...	14,732	14,732	13,398	91.6	...	57.8
Srivillipattur ...	1	...	326	...	24,230	250	...	14,777	14,777	13,097	88.6	...	61.0
Sermadai ...	1	...	325	...	26,894	234	...	16,416	16,416	15,351	93.6	...	81.2
Tinnevely ...	1	...	283	...	34,624	244	...	18,191	18,191	15,661	86.0	32.5	...
Trichinopoly ...	1	...	284	...	31,625	214	17,037	...	17,037	15,339	90.0	53.8	...
Arivar ...	1	...	495	...	24,497	266	...	18,039	18,039	11,883	91.1	...	55.4
Gumputur ...	1	...	331	...	9,341	169	...	5,238	5,238	4,744	90.7	...	56.6
Joydepur ...	1	...	740	...	21,256	240	9,222	...	9,222	6,395	69.3	43.4	...
Vizagapatam ...	1	...	293	...	29,942	192	10,631	...	10,631	8,122	74.3	...	86.5
Vizianagaram ...	1	...	294	...	40,525	207	18,066	...	18,066	15,136	83.7	44.5	...
Total ...	33	31	16,200	10,977	1,347,567	243	428,121	330,427	758,546	650,178	85.7	54.5	50.6

* Assistant Deputy Inspectors.

† In working out these percentages, the figures relating to Madras have not been taken into account.

‡ Madras and Dindigul ranges have been made first and second class ranges respectively.

§ Tirumangalam was newly constituted a circle in June 1901.

|| Includes 7,301 cases vaccinated in the Natal and Mauritius depots and Penitentiary which were not verified by the Deputy Inspectors.

Government of Madras.
LOCAL AND MUNICIPAL DEPARTMENT.

Recd.

Regd.

1905.

Enclosures

Spare copies

G.O., &c., Nos. 881, 882 L., 13th August 1905.

Report.

Reviewing the — on vaccination in the Madras Presidency and the work of the King
Institute of Preventive Medicine for the year 1904-1905.

GOVERNMENT OF MADRAS

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following paper:—

Letter—from Lieutenant-Colonel W. G. KING, C.I.E., I.M.S., Sanitary Commissioner for Madras.

To—the Secretary to Government, Local and Municipal Department.

Dated—the 20th July 1905.

No.—1180.

ABSTRACT.—Forwarding the Annual Vaccination Report for 1904-1905.

Order—No. 881 L., dated 18th August 1905.

The total number of vaccine operations performed during the year largely exceeded that of the previous year and the ground lost in 1903-1904 was thus more than regained, the District Boards of Malabar, Madras, Tinnevely, Trichinopoly, Kistna and Ganjam having contributed an increase of more than 10,000 cases each. There was also an increase in the work done in Municipal areas, which amounted, on the whole, to 9 per cent. against 14 per cent. in the areas under District Boards.

2. Though the total number of re-vaccinations rose from 69,330 to 76,280, it compares unfavourably with the results of 1902-1903 (81,447 cases). This decline appeared mainly in the Local Fund areas in the districts of Godavari, South Canara and Madras, and the Presidents of the District Boards concerned should take measures for effecting an improvement in this direction.

3. The percentage of success fell from 90.8 to 86.8 and this is attributable in part to the lack of skill on the part of the vaccinators in many of the districts in performing operations with the lanoline paste which was supplied to them for the first time from the King Institute. It is noted however, that the earlier issues of lanoline vaccine from this Institute were not entirely satisfactory; the supply however improved in character and the proportion of successful operations gradually increased in each quarter. The Government consider that, although the percentage of success for the year was below the average for previous years, this may have been due, partly at any rate, to greater accuracy in the returns of cases verified.

4. In spite of the low proportion of success, there was a considerable increase in the total number of successful cases and a reduction in the average cost of each such case. The cost of each successful operation was however in excess of As. 4 in the districts of Cuddapah, Godavari, the Nilgiris, North Arcot and South Canara and in excess of As. 8 in the Municipalities of Anantapur, Bellary, Bimlipatam, Coonoor and Erode. The Local Bodies concerned must take steps to require a larger number of operations from their vaccinators.

It is observed that in many cases the figures as to the actual cost of each successful operation are misleading owing to the failure of the Local Bodies concerned to adjust the cost of the lymph supplied to them within the year. Arrangements should be made to ensure punctual adjustment of these charges in future years.

5. The number of children under one year successfully vaccinated rose from 423,584 to 434,701. But in the Municipalities of Anantapur, Coonoor, Karur, Kodaikanal, Kumbakonam, Nellore, Tirupattur and Vizianagram less than one-half of the number of children available for vaccination according to the registers of births were protected from small-pox; and the attention of the Municipal Councils concerned is drawn to the subject, with the request that they will strictly enforce the compulsory provisions of the District Municipalities Act in regard to vaccination.

6. The Deputy Inspectors of Vaccination verified 56 per cent. of the total number of operations; but 12 of these officers failed to verify the 50 per cent. due by them for reasons which in ten instances have been accepted by the Inspector as satisfactory. In addition, the District Medical and Sanitary Officer inspected 2.3 per cent. of the operations; but in Bellary, Cuddapah, Ganjam, Kistna, Kurnool and Vizagapatam, the number of cases verified by these officers was less than 1 per cent. of the total number of operations. In districts where Sanitary Assistants to the District Medical and Sanitary Officer have been appointed, a large increase in the number of verifications will be looked for. In the case of other districts, the Surgeon-General is requested to impress on the officers concerned the necessity for larger verification of the work of the vaccination staff.

7. The Vaccine section of the King Institute of Preventive Medicine at Guindy which commenced work towards the close of 1903-1904 supplied lymph to all the districts in the Presidency except Tanjore during the year under report. Tanjore began to receive its lymph from the Institute from April 1905. The Government trust that as the Vaccinators become accustomed to the new kind of lymph and undergo special training in vaccination under the Deputy Inspector of Vaccination whom it is proposed to place on special duty for this purpose, the percentage of success will show an improvement.

8. The report on the scheme proposed for certain districts for the reorganization of the vaccination staff is under the consideration of Government and orders will issue shortly. The Government have lately directed that candidates for the post of Deputy Inspectors and Vaccinators may undergo a special course of training in the King Institute from 1st September next, and they have no doubt that this will be the means of further improving the quality of the work of the vaccine staff.

9. The report as to the work done in the King Institute is full and interesting and the Government congratulate Colonel King and Lieutenant Christophers on the success which has attended their efforts during the first year of its establishment.

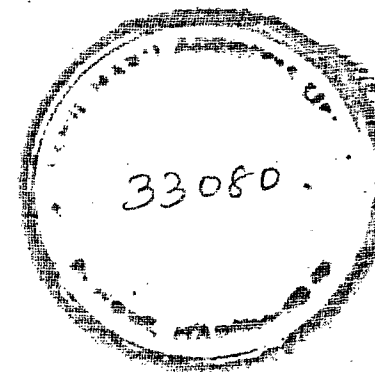
10. The suggestion made by Colonel King that the Deputy Superintendent of the Institute who is now a Military Assistant Surgeon should be replaced by an Uncovenanted Medical Officer with European training should form the subject of a separate communication.

11. There has been a delay of more than a month in the submission of these reports and the explanation offered therefor in paragraph 1 of the Sanitary Commissioner's letter cannot be accepted as adequate.

(True Extract.)

H. D. TAYLOR,
Ag. Secretary to Government.

To the Sanitary Commissioner.
" the Surgeon-General.
" the Sanitary Engineer.
" the Public Department.
" the Judicial Department.
" the Revenue Department.
" the Assistant Adjutant-General, 9th (Secunderabad) Division.
" all Collectors.
" all Presidents of District Boards.
" all Chairmen of Municipal Councils.
" the President, Corporation of Madras.
" the Director of Public Instruction.
" the Accountant-General.
Editor's Table.



Endorsement No. 882 L., dated 18th August 1905.

Copy to the Government of India, Home Department.

H. D. TAYLOR,
Ag. Secretary to Government.

Ed. A.F.E.

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செப்பனிருபவர் அபயர்

செப்பனிருவதற்காக எடுத்த
கொள்ளப்பட்ட நாள் 1994

செப்பனிரு முடித்த நாள் 1994

சரிபார்க்கும்
மு. பா. எ. க. குமாரன்

கையொப்பம்
கையொப்பம்