

OFFICE OF SANITARY COMMISSIONER,
MADRAS, 2nd July 1906.

No. 1440
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From

LIEUT.-COLONEL H. THOMSON, M.B., C.M., D.P.H., 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 Reports of the Superintendent of the King Institute of Preventive Medicine, Guindy, on the work of the King Institute and of the Inspector of Vaccination and Deputy Sanitary Commissioner on the progress of vaccination in the Presidency during the past official year. The reports call for no special remarks.

2. Captain Christophers's Report on the work of the King Institute of Preventive Medicine is full and interesting. The question of finding grazing ground for the Institute cattle and the best means of disposing of the finished calves is under consideration. The opening of the forest reserve in the Chingleput district for the grazing of the done calves will afford considerable relief, but the financial terms imposed by the Forest Department would throw a burden upon the Institute that might well be saved to it.

3. Much useful work was done in the Bacteriological Section; and there can be no doubt that, if greater facility were afforded by the provision of residential quarters for officers wishing to undertake research work, the laboratory would be more largely availed of; the absence of such accommodation is a serious drawback to the Institute. The appointment of an additional Medical officer will afford much needed relief to the Superintendent.

4. It was not possible to start work at the Serum Section, as this Section has not been provided with a Cooling Apparatus.

5. Captain Justice reports that the quality of the vaccination work during 1905-1906, as compared with that of 1904-1905, has improved. This result is due to the experience gained by vaccinators in the use of lanoline vaccine supplied by the King Institute. I feel assured that, as time advances and vaccinators acquire greater experience and facility in handling this form of preserved vaccine, much better results will be secured. During the year the sanction of Government was received for the working of the Trial Scheme (Compulsory Vaccination and Registration) in the districts of Chingleput, South Arcot, Madura and North Arcot. The bringing into operation of the scheme in these districts is being arranged for.

6. This Presidency still suffers from the disability of not having a whole time Inspector of Vaccination and Deputy Sanitary Commissioner. The importance of having a full time officer cannot be overstated as was proved by a recent inspection carried out by him of the work of the vaccination staff in certain backward districts. Secure in the belief that inspection of their work was a remote contingency the

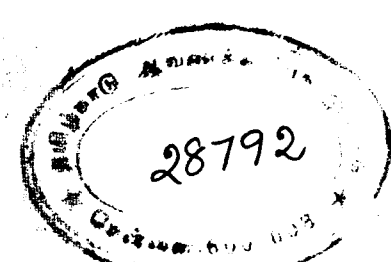
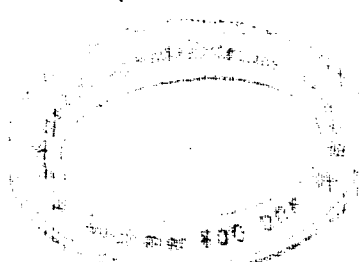
staff apparently performed their duty pretty much as they pleased as disclosed by the report submitted by the Inspector of Vaccination. I am of opinion that nothing short of frequent inspections by a superior officer can secure good honest work from this class of subordinates.

I have the honour to be,

Sir,

Your most obedient servant,

H. THOMSON, Lieut.-Col., I.M.S.,
Sanitary Commissioner for Madras.



* செப்பனுவதற்காக எடுத்துக் *
* கொள்ளப்பட்ட *
* மாதம் 1987 *
* செப்பனிடும் முடித்த *
* மாதம் 1987 *
* குரா பச்சி உதவிபாளன் *
* கையொப்பம் *

ANNUAL REPORT ON THE WORK OF THE KING INSTITUTE OF PREVENTIVE MEDICINE FOR THE YEAR ENDING

31ST MARCH 1906.

THE VACCINE SECTION.

1. The total amount of vaccine despatched during the year has been sufficient for 1,633,250 cases, 154,802 cases more than were supplied last year. Of this amount vaccine for 1,401,409 cases was supplied to District Board vaccinators throughout the Presidency, 1,225,744 cases being the regular supply stipulated for by the districts, and 175,665 cases vaccine sent in answer to extra indents from vaccinators. Vaccine for 126,856 cases has been supplied to different Municipalities, 59,083 cases to Agency vaccinators, 16,818 cases to Government officers including Jails and Police, 6,336 cases to the Military Department, and 22,748 to various private persons.

2. During the year the supply of every District and Municipality in the Presidency, except Madras City, has been met by the Institute.

3. The total net cost of production, including Establishment charges and repairs of buildings, was Rs. 41,364-3-8 and the cost per case 4-9313 pies as against 4-1661 pies last year—vide Statements A and B.

4. The increased cost of production was more than accounted for by increased expenditure for fodder and a diminished yield of vaccine during the months of June to September, following want of rain in the Chingleput district. The difficulty in producing vaccine during these months also led to shortage in supply, which however was, with the consent of the Local Bodies, afterwards almost entirely made good by a proportionate additional supply to vaccinators during the latter portion of the year.

Though disastrous at the time, this very unfavourable season served to point out very clearly in what direction efforts to ensure constant production of vaccine on a large scale in India should proceed. It was seen that failure of vaccine production went hand in hand with a poor state of nutrition in the calves. During the hot weather calves from the district are in a state of physiological poverty with the hard dry skin characteristic of poor nutrition. The ability to counteract these conditions, by grazing, green food, freedom of movement and so on, practically determines the success of manufacture. The experience of the year, in short, has shown that, to be successful, a Vaccine Institute must, in a country like India, be prepared to undertake many operations of a distinctly agricultural kind. Above all first-class grazing must be arranged for, and maintained at any cost throughout the dry season.

Once these facts were realised every possible preparation was made in the later months of the year to minimise the effects of the next hot season when it should come. Portions of the Institute grounds along the river bank, which had hitherto lain waste, were put under cultivation for the production of lucerne, cholam and other green food. Other portions were converted, as far as possible, into meadow land, and artificially irrigated, so that the calves, while waiting their turn for inoculation, might be under conditions most calculated to ensure in them a fit state of nutrition.

Although the arrangements were short of what one would desire, the result up to the time of writing this report has exceeded the most sanguine expectations, and the present hot weather, 1906, is the first in which the manufacture of vaccine has not been on the point of breaking down.

5. Vaccine has, in the main, been sent out in the form of lanoline vaccine paste, 27 milligrammes of which have been allowed per case, this quantity having been found by experiment and the experience of the great majority of vaccinators to be sufficient.

Annual Report ^{on} ~~of~~ the working of the
King Institute of Preventive
Medicine for the year
ending 31st March 1906



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The properties as a disinfectant power of samples of cyllin, received through the Sanitary Commissioner, from the Government of Madras, have been compared with those of carbolic acid and perchloride of mercury, and a report upon the subject duly submitted.

16. In August 1905, at the request of the Sanitary Commissioner, an investigation was made upon an outbreak of what appeared to be cholera in Madras. The reason for investigation was that the cases seen presented none of the typical appearances of cholera. The cases which had been segregated in the hospitals certainly showed none of the usual symptoms of cholera. Close enquiry, however, elicited the fact that all these cases had been collected from among the very poorest class of native, and that these rarely reached the hospital till after the first 24 or even 48 hours of their illness. To encounter the disease in its early stages, cases were traced, with the help of the Health Officer, in the town itself. Once the disease was met with within the first 12 or 24 hours of its onset, no difficulty in arriving at a diagnosis was possible. Not only were all the classical symptoms of cholera present, but the vibrio of cholera was isolated with ease from the stools. The interest of the investigation lies in the fact that, under certain conditions, a disease so well known as cholera should present itself so that it was scarcely recognisable. The conditions here were the occurrence of the disease among destitute and probably half starved coolies, and the train of circumstances which led to patients being seen only late in the disease. Later on, when the cholera spread among better class individuals, I saw in the hospitals many typical cases, which, if they had arrived earlier, would have left no doubt, in the minds of those who saw them, that the disease was cholera.

17. Several Medical officers have made use of the laboratories for research or instruction. Captain Patton, I.M.S., under orders of the Government of India has been attached to the King Institute for a period of six months, extended later to ten months, to undergo training in methods of research. Captain Lauder, R.A.M.C., attended the laboratory whilst on leave for a period of one month, to make himself familiar with microscopic methods. During this officer's stay it was discovered that a large proportion of the mosquitoes about Madras, (*C. fatigans*), are infected with flagellate parasites (*herpetomonas*), which can be traced from the gut of the larva, through the pupa, to the adult. Lieutenant Harris, I.M.S., is at present working in the laboratory on the abovementioned flagellates and other parasites of mosquitoes. Mr. I. E. A. D'Cruz, Executive Engineer, Mysore City, spent ten days, whilst he was on leave, in the laboratory, making himself familiar with the methods employed in the bacteriological examination of water and Hospital Assistant K. Damodar Kulbarni from Maharaja Tukojira Hospital, Indore, a month's privilege leave in learning laboratory methods. Captain Cornwall, I.M.S., has also latterly made use of the laboratory in some researches upon the filtration of vaccine.

18. Of research work that of Captain Patton, I.M.S., on *Kala Azar* and my own on *piroplasma* have engaged most attention. Captain Patton after a long series of difficult feeding experiments has been able to show that, contrary to what has been generally presumed, the Leishman-Donovan Body can and does reach the gut of bloodsucking insects, which have fed on cases of the disease. He has also shown that in the bug development of the bodies can go so far as the flagellate stage, and be recovered from the gut several days after the insect has fed. These discoveries point very strongly indeed to the bug as the carrier of this important disease, and final proof will probably soon be forthcoming. During the period of his deputation, Captain Patton has also worked upon a new haemogregarine (*L. funambuli*), which he has discovered in the mononuclear leucocytes of the squirrel. A memoir upon the parasite in question is on the point of publication. In addition to the haemogregarine of the squirrel, Captain Patton has also discovered a new haemogregarine in native cats, which he has named *Leucocytozoon felis*. My own researches have been directed, in the main, to the study of ticks and the piroplasmoses, a subject upon which practically nothing has been done in India. Although the main object of the research, which was the discovery in the tick of the developmental forms of piroplasma, has not yet been attained, this work has

resulted in the collection of much collateral information new to science, and will form the foundation of a future memoir. Another subject investigated has been the haemogregarine of the dog, *Leucocytozoon canis*, which has been found to occur in the native dogs of Madras. The result of this research has been, among other matters, the discovery of the vermicle stage, and the encysted reproductive form of the parasite. A memoir on the subject is in process of publication. In addition to *piroplasma canis* in the dog and the large and small form of piroplasma in cattle, a minute form has been discovered in the sheep. It is intended to ascertain more of this parasite later.

A species of louse from the field rat (*Gerbillus indicus*) has been found to be new to science and has been named by Professor Newstead of Liverpool and myself *hematopinus stephensi*.

Ticks, fed in the laboratory on dogs infected with piroplasma, which were taken home by Captain James, I.M.S., have given rise to infection in a dog at the London School of Tropical Medicine. This result is interesting since it concerns quite another species of tick to the South African species with which a similar result has lately been obtained by Nuttal and Hounsbury.

19. A course of minor Sanitary Engineering has been held at the Institute by Mr. H. Nowroji, the Assistant Sanitary Engineer to Government, and has been attended by over 100 students, many of whom have come from Mysore and distant parts of the Presidency. Lectures and practical instruction in human and animal vaccination, and an elementary course of lectures on bacteriology (asepsis), have been given by the Superintendent.

20. A separate report on the Experimental Sewage Farm is being submitted.

THE SERUM SECTION.

21. This section has not yet been opened.

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

OFFICE OF THE KING INSTITUTE
OF PREVENTIVE MEDICINE,
GUINDY, 15th June 1906.

6. The limited amount of glycerinated paste issued has not, under the conditions of transit, etc., given so good results as the lanolated paste.

7. The success rate of the year, as shown by returns to the Institute, has been higher than in the previous year reaching 92.8 per cent. as against 91.21 per cent. last year. It varied during the different months from 85 per cent. to 97 per cent., the worst returns being received from May to August inclusive. In January the success rate of 104,871 cases from all parts of the Presidency was 97 per cent. The success rates in different districts varied from 84 per cent. to 99.8 per cent. The lowest returns were received from Gódvári, Coimbatore and Vizagapatam—*vide* Statements C, D and E.

Out of 105,667 cases supplied to Malabar 99.3 per cent. were successful.

8. The maintaining of the records from which these figures are obtained, and correspondence entailed, has been an important and heavy item in the work of the office. It is, however, very necessary for it not only enables the quality of the vaccine to be watched, but it tends very largely to check certain faults of the vaccinators, which tell unfairly against the quality of vaccine issued. One of the most prevalent of these faults is the custom of keeping paste over till it suits the convenience of the vaccinators to use it. This delay in the use of the paste has been systematically fought against by insisting, by every possible means, on prompt submission of returns. Paste returned for any reason by vaccinators has been in every case tested upon a calf, and in spite of having performed a double journey it has in most cases given very good results—*vide* Statement F.

9. Where paste has been returned by vaccinators without sufficient cause, the Local Body concerned has always been notified of the circumstance.

10. The number of calves utilised has been 3,501, or an average of 292 per month. The supply of calves, which had last year, and in the beginning of the present year, caused much anxiety, has latterly much improved, contractors having made better arrangements for their purchase. A better quality of calf has also been supplied. The sale of done calves, on the other hand, has become increasingly more difficult, necessitating the trainage of many of these to distant parts for sale.

11. In March 1906 Assistant Surgeon H. C. Jackson took up the duties of Deputy Superintendent. The effect of his zeal and ability has added greatly to the success of the latter months of the year.

THE BACTERIOLOGICAL SECTION.

12. The number of specimens received for report during the year has been 781, as compared with 600 during 1904-1905.

The increased extent to which the Presidency has availed itself of the laboratory is in reality greater than these figures would suggest, since plague specimens from Madras City, which last year numbered over 100, are now examined in the Municipal laboratory by the Special Plague staff.

The specimens received were—314 specimens for report as to the presence or absence of the plague bacillus, of which 26 were from suspected buboes, 54 of blood, 15 of smears of liver or spleen in fatal cases, 29 of sputa of suspected pneumonic plague, and 190 of smears or other material from suspected plague rats; 163 specimens for report as to the presence or absence of the malarial parasite; 29 specimens for the detection of the tubercle bacillus, several of which in important cases were tested by the inoculation of the suspected material into guinea pigs; 39 specimens of blood for Widal's reaction; 15 specimens from suspected cholera cases and 10 of dogs suspected to be rabid. In most of the latter cases, in addition to a *post mortem* examination of the dog, a rabbit was inoculated with material from the brain. Tumours and other pathological tissues for sectioning and report numbered 74. In the case of tumours, a mounted section has in each case been forwarded to the officer who sent the specimen. Other material of a miscellaneous nature has included specimens of blood for differential counts of the leucocytes, or the detection of the Leishman-Donovan Body or other protozoal parasites, specimens of pus for examination for the tetanus bacillus, gonococci, or other organisms, specimens of mosquitoes, ticks, and worms, for identification and others.

In connection with plague specimens printed slips, giving directions regarding the interpretation of results, have latterly been forwarded with every report recording absence of the plague bacillus.

13. Stains and materials necessary for diagnosis or research have, as hitherto, been supplied to officers asking for them, the actual expenses of materials being recovered. Sterile apparatus, consisting of petri dishes, agar tubes, and pipettes, has been sent to several officers. A large number of special sterile bottles for the collection of water samples have also been prepared and sent out.

14. With the increased efficiency of the laboratory staff, it has been possible to examine much more systematically and thoroughly samples of water sent in. During the year, 69 samples of water, from various sources, have been examined and reported upon. The examination in each case has consisted in a microscopical scrutiny of the total sediment obtained by filtration through sand (Rideal-Walker method), the enumeration of organisms per c.c., the quantitative estimation of *bacillus coli communis*, and the testing for *bacillus sporogenes enteritidis* by the milk test performed upon 100 c.c. of the sample. The method of performing the sporogenes test has been to use four large test tubes, each taking, in addition to the milk, 25 c.c. of the sample. These are heated to 80° c. for twenty minutes in a large model of Balfour Stewart's apparatus, and incubated anaerobically in a Bullock's apparatus. The absence of *b. sporogenes enteritidis* in 100 c.c. of the sample has been taken as evidence of freedom from pollution, and this decision has always been upheld by the microscopic examination of the sediment, and the estimation of *b. coli communis*. The significance of the presence of *b. sporogenes enteritidis* is less obvious. At present too little is known of the bacteriological conditions of Indian waters to enable one to estimate the value of this test when positive.

In order to ensure absolute sterility of the bottle used for collection, special sterile bottles are now prepared, and sent to officers who may require to send samples for bacteriological examination. A circular has also been issued through the Sanitary Commissioner requesting that certain procedure be adopted when sending samples for examination.

In connection with the Sanitary Engineer to Government, a series of special examinations has been undertaken on representative samples from the water-supply systems of a number of Presidency towns. It is intended, eventually, to examine bacteriologically all the chief water-supplies in the Presidency. Up to the present the water-supplies of five towns, namely, Madura, Conjeeveram, Dindigul, Trichinopoly and Tanjore have been examined and reported upon.

A number of samples of water have been received from Jails and from the Military authorities.

Most of the samples that have been received show the presence of *b. sporogenes enteritidis* and *b. coli communis* in small quantities of water. Such samples one must conclude are polluted, but whether they may not often be, for India, comparatively good water, can be decided only by experience. It is certain that a well, into which buckets and chatties are dipped, will, with the delicate bacteriological tests employed, show pollution, however free such water may be from gross pollution by sewage. To ensure the proper interpretation of results of a bacteriological examination, officers have been requested, in the circular referred to, to state always the nature of the source of water, and the particular points a bacteriological examination is required to determine.

As the delicacy of the bacteriological tests makes them not very suitable for estimating the comparative purity of polluted waters, the examination of the total sediment has been very largely used. This method serves to pick out very clearly cases of gross and dangerous pollution.

15. In connection with plague, farther experiments on rats from Madras and the Nilgiris have been undertaken with Danyz virus freshly obtained from Europe. The experiments have throughout given negative results.

At the request of the Special Plague Officer, Madras, the poisonous dose of Commonsense Rat Exterminator was ascertained for dogs and the result communicated to him.

STATEMENT A.

Statement showing the Expenditure incurred during the year 1905-1906 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.			
Deputy Superintendent	1,522	8	9
Assistant Superintendents, clerks and servants	9,181	12	2
Travelling allowance of the establishment	187	10	0
House-rent allowance	46	2	1
	10,928	1	0
Supplies and services and contingencies.			
Petty works of construction	326	1	6
Purchase of apparatus	104	13	5
Cost of boxes and receptacles for despatch of paste to vaccinators	22	13	0
Cost of calves	27,047	4	5
Feeding charges of calves	6,103	10	2
Water works	746	8	10
Gas works	204	8	5
Purchase of furniture	68	9	3
Repairs of water works	143	1	3
Petty repairs to buildings	94	6	7
Repairs to furniture	37	12	0
Tour charges	86	6	3
Hot and cold weather charges	4	0	0
Postage charges	1,521	12	0
Telegraph charges	31	11	0
Office expenses	124	11	1
Miscellaneous charges	1,007	13	11
Total supplies, services and contingencies	37,617	15	1
Grand Total, Vaccine Section	48,546	0	1
Add—Book charges for mops supplied from the Penitentiary, Madras, in 1904-1905	2	4	0
Grand Total	48,548	4	1

STATEMENT B.

Statement showing the net Expenditure incurred during the year 1905-1906 in the King Institute of Preventive Medicine, Guindy, Vaccine Section.

Particulars.	Amount.			Total.		
	RS.	A.	P.	RS.	A.	P.
Gross expenditure as per statement A	...	...	...	48,548	4	1
Deduct—						
(1) Credits under "sale of calves" and "miscellaneous receipts" remitted to the treasury.	5,999	4	2			
(2) Amount to be recovered from private bodies for the supply of vaccine sufficient for 22,748 cases at 10 pias per case.	1,184	12	8	7,184	0	10
Net Rupees				41,364	3	3

STATEMENT C.

Returns recorded in the King Institute from the whole of the Madras Presidency classified according to the Month of the year.

Months.	Number successful.	Number unsuccessful.	Percentage of success.
1905.			
April	93,815	9,969	90
May	45,643	7,930	85
June	19,057	2,305	90
July	65,733	9,156	88
August	55,782	7,572	88
September	26,433	2,405	92
October	60,658	4,678	93
November	83,801	5,800	94
December	104,555	6,719	94
1906.			
January	104,871	3,624	97
February	107,961	3,862	96
March	111,175	4,238	96
Total	879,529	68,258	92.8

STATEMENT D.

Returns recorded in the King Institute from the Malabar district classified according to the month of the year.

Months.	Total successful.	Total unsuccessful.	Percentage of success.
1905.			
April	8,192	226	97
May	6,990	153	98
June	2,189	47	98
July	12,815	286	98
August	5,195	210	96
September	2,264	52	97
October	5,086	72	99
November	10,402	188	98
December	13,006	188	99
1906.			
January	11,140	113	99
February	12,365	109	99
March	13,448	98	99
Total	103,990	1,687	98.3

REPORT OF THE KING INSTITUTE, GUINDY.

STATEMENT E.

Returns recorded in the King Institute from the whole of the Madras Presidency
classified according to Districts.

Districts.	Total number successful.	Total un- successful.	Percentage of success.
Anantapur	23,631	778	97
Bellary	23,051	837	96
Chingleput	29,607	1,383	95
Coimbatore	32,664	7,095	86
Cuddapah	31,065	2,239	91
Ganjām	54,083	5,209	91
Gōdāvari	35,844	6,970	84
Guntūr	33,152	3,753	90
Kistna	42,121	4,011	91
Kurnool	23,753	1,850	91
Malabar	103,990	1,687	98
Madura	74,424	2,848	96
Nellore	27,359	3,382	89
Nilgiris	3,233	34	99
North Arcot	29,422	1,257	96
Salem	43,086	2,977	94
South Arcot	44,121	2,361	95
South Canara	28,107	1,550	95
Tanjore	46,767	2,578	95
Tinnevely	52,454	4,536	92
Trichinopoly	40,718	3,222	92
Visagapatam	44,241	6,663	87
Total ...	679,529	68,258	92.8

STATEMENT F.

Statement showing the results of Inoculation with paste returned from Vaccinators during the
year 1905-1906.

Total number of paste boxes returned.	Total number experimented.	Results of experiments.			
		Percentage of success from 80-100.	Percentage of success from 60-80.	Percentage of success below 60.	Number failed.
517	355	250	26	50	27

REPORT OF THE KING INSTITUTE, GUINDY.

STATEMENT G.

Statement showing the expenditure incurred under Bacteriological Section of the King Institute
of Preventive Medicine, Guindy, for the year 1905-1906.

Head of account.	Amount.
	RS. A. P.
Pay of the Provincial Health Officer and Superintendent ...	9,821 12 5
Exchange compensation allowance	613 14 0
Pay of the establishment	2,509 1 2
Extension of gas works to the second laboratory and bacteriolo- gist's residence	659 9 0
Stores for manufacture of gas	1,144 9 9
Stores for water works	248 2 11
Purchase of scientific apparatus and material	4,222 8 2
Purchase of apparatus and material (recurring)	1,551 4 7
Repairs and contingencies for sewage filtration	61 14 7
Purchase of furniture and fittings	1,412 11 7
Purchase of books	186 8 0
Petty repairs to buildings	105 5 7
Repairs to furniture	78 4 6
Tour charges	103 6 3
Hot and cold weather charges	5 0 0
Repairs to water-supply works	52 11 1
Repairs to gas works	114 15 4
Postage charges	237 18 0
Telegraph charges	25 18 0
Office expenses	57 2 6
Miscellaneous	693 7 3
Total ...	23,905 5 8

REPORT ON VACCINATION IN THE MADRAS PRESIDENCY FOR THE YEAR 1905-1906.

From Captain Wm. A. JUSTICE, I.M.S., Acting Inspector of Vaccination and Deputy Sanitary Commissioner for Madras, to the Sanitary Commissioner for Madras, dated 22nd June 1906, No. 1299(a)-V.

I have the honour to submit the annual report on vaccination in the Madras Presidency for the official year 1905-1906.

2. The post of Inspector of Vaccination and Deputy Sanitary Commissioner was held by Captain F. F. Elwes, I.M.S., from 1st April to 6th December 1905, and by Captain J. W. Cornwall, I.M.S., from 7th December 1905 to 15th April 1906. Since the 15th April 1906 the post has been held by me.

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

Years.	Deputy Inspectors.			First-class Vaccinators, Rs. 20-15.	Second-class Vaccinators, Rs. 12-10.	Probationers, Rs. 7-5.	Total number of Vaccinators.
	First grade, Rs. 70.	Second grade, Rs. 60.	Third grade, Rs. 40.				
1904-1905	25	8	* 32	284	445	144	873
1905-1906	26	7	* 33	288	456	143	887

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

4. (a) An additional range (Bápatla) has been constituted in the Guntúr district and a Deputy Inspector of Vaccination has been posted to it under G.O., No. 1229 L., Mis., dated 30th October 1905.

(b) Under G.O., No. 318, Financial, dated 17th April 1905, the appointments of Deputy Inspectors of Vaccination have been treated as graded ones, the 1st grade on Rs. 70, the 2nd on Rs. 60 and the 3rd grade on Rs. 40.

(c) Under G.O., No. 122 L., dated 5th February 1906, Deputy Inspectors of Vaccination have been required to prepare a single copy of the weekly diary and forward the same to the Sanitary Commissioner through the District Medical and Sanitary Officer and the President, District Board. These officers transmit the diaries with their remarks. The attention of the Presidents, District Boards, might be drawn to the assistance which their endorsements afford this office. Not only are they better able to give an opinion on the work turned out by the Deputy Inspectors of Vaccination, but also the amount he is really capable of doing in their districts. I should like also to invite the attention of these officers to the inanities which sometimes issue under the signature of their Vice-Presidents. Under the same Government Order the programme of the Deputy Inspectors of Vaccination is published in the District Gazette and the Gazette sheet is forwarded to this office.

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

	1904-1905.	1905-1906.
Primary and secondary vaccination ...	1,406,989	1,357,745
Re-vaccination ...	76,280	107,245
Total ...	1,483,269	1,464,990

The decrease in the total number of operations as compared with the previous year is accounted for by the short supply of paste from the King Institute of Preventive Medicine, Guindy, and absence of vaccinators without substitutes.

6. The districts which show the largest increase are Salem (8,930), Madura (7,600), Malabar (6,419), Anantapur (4,821), Tanjore (3,405), Chingleput (2,848), Kistna (2,429) and South Canara (1,380).

Eleven districts show the largest decrease, viz., Tinnevely (16,318), Guntūr (9,688), Gōdāvari (9,519), Vizāgapatam (6,459), North Arcot (5,729), Ganjām (5,559), Nellore (5,399), South Arcot (5,131), Kurnool (3,630), Trichinopoly (3,536) and Coimbatore (1,895).

The explanations of decrease, as submitted by the Deputy Inspectors concerned, are given below:—

Tinnevely.—Short supply of paste, reduction in the staff of vaccinators, and non-maintenance of unprotected lists in many zamin villages.

Guntūr.—Insufficient supply of paste.

Gōdāvari.—Short supply of paste, absence of vaccinators without substitutes, reduction in the minima fixed for vaccinators caused by the rearrangement of the ranges.

Vizāgapatam.—Short supply of lymph, want of aid from the village officers.

North Arcot.—Short supply of paste.

Ganjām.—Insufficient supply of vaccine and absence of vaccinators without substitutes.

Nellore.—Short supply of paste.

South Arcot.—Short supply of paste, absence of vaccinators without substitutes.

Kurnool.—Reduction of the vaccinators' minima.

Trichinopoly.—Short supply of paste.

Coimbatore.—Insufficient supply of paste, absence of vaccinators without substitutes.

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

Establishment.	Number of successful vaccinations.				Total of successful vaccinations.	
	1904-1905.		1905-1906.		1904-1905.	1905-1906.
	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.		
1	2	3	4	5	6	7
Local Fund vaccinators	1,089,929	18,410	1,081,374	29,548	1,068,339	1,110,224
Government do.	24,797	1,831	18,054	1,054	26,438	19,206
Zamindari do.	10,386	504	3,966	204	10,889	4,183
Municipal do.	108,242	21,915	110,989	33,443	126,167	148,481
Cantonment do.	4,602	644	4,892	1,417	6,246	6,309
Dispensaries do.	7,014	2,386	1,024	491	8,250	1,515
Medical subordinates	1,834	5,574	2,260	8,554	7,408	10,334
Total	1,191,808	50,914	1,222,602	78,716	1,242,717	1,290,312

Establishment—cont.	Ratio per cent. of successful cases.				Ratio per cent. of total successful cases.	
	1904-1905.		1905-1906.		1904-1905.	1905-1906.
	Primary and secondary vaccinations.	Re-vaccination.	Primary and secondary vaccinations.	Re-vaccination.		
8	9	10	11	12	13	14
Local Fund vaccinators	87.0	74.0	92.3	79.8	87.0	91.9
Government do.	87.0	81.7	94.2	90.1	85.9	92.9
Zamindari do.	72.0	89.4	92.7	95.8	77.2	92.8
Municipal do.	94.0	75.0	93.5	72.0	90.0	86.8
Cantonment do.	95.3	59.0	97.6	62.1	93.3	86.5
Dispensaries do.	83.1	72.5	85.2	79.1	83.0	78.1
Medical subordinates	83.1	70.5	79.5	77.0	79.1	77.6
Total	87.4	71.5	92.9	78.0	87.4	91.8

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

Though there has been an increase on the whole in the total number of successful operations during the year, there has been a fall in the work turned out in the Government and the zamindari areas and in dispensaries. The former is due to the inclusion of the Jeypore range in the Local Fund area and the latter is accounted for by the fact that vaccine operations have not been performed in dispensaries by the medical subordinates after the issue of G.O., No. 1091 L., dated 29th July 1905.

8. The following districts show the largest increase in infantile vaccination when compared with the previous year:—Anantapur (11.4), Kistna (8.4), Chingleput (5.8) and Cuddapah (5.2). The districts which show the largest decrease are Guntūr (4.6), Kurnool (3.8), Coimbatore (3.4) and Tinnevely (3.1).

9. As regards municipalities, 34 towns secured a ratio of 75 per cent. and upwards against 33 in the previous year. The towns showing a substantial increase are Anantapur (40.0), Vizianagram (35.7), Madura (24.7), Bellary (23.4) and Bimlipatam (21.4).

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.	
	1904-1905.	1905-1906.	1904-1905.	1905-1906.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Government establishment	9,425 1 3	6,872 10 4	0 5 8	0 5 9
Local Fund do.	2,13,197 4 11	2,41,140 5 2	0 3 3	0 3 6
Municipal do.	33,246 6 9	34,662 2 4	0 4 3	0 3 10
Zamindari do.	1,871 9 8	867 1 0	0 2 9	0 3 4
Cantonment do.	2,222 5 10	2,389 2 0	0 6 9	0 6 0
Total	*2,64,962 12 5	*2,85,831 4 10	0 3 5	0 3 7

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

11. 167,581 operations were performed in the municipalities during the year against 145,153 in the preceding year. The towns which show a marked decrease are Ellore (1,561), Cochin (582) and Calicut (209).

The municipalities that show an increase are Madras (14,689), Bellary (2,247), Negapatam (1,995), Coimbatore (1,264), Madura (594), Salem (507), Vizianagram (426), Nellore (395), Dindigul (320), Erode (268) and Cuddapah (250).

12. Compulsory vaccination has been introduced into 51 unions during the year. In some places where it is compulsory it is carried out in a half hearted manner. To maintain their popularity municipalities refrain from serving notices and magistrates in interpreting the provisions of the law are so ridiculously lenient that the fines inflicted are willingly paid by the parents. There is much room for improvement under this system. The correct maintenance of the birth and death registers and the unprotected list are of first importance. A defaulter's register ought to be kept up from year to year continuously. The number of cases entered under "left the town" should be more carefully scrutinized, as in my opinion many parents seek temporary shelter in a neighbouring village with no other object than that of escaping vaccination. In unions where vaccination is compulsory, the registration of births and deaths should likewise be compulsory.

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.
1,195,089	Local Fund	Lanoline lymph	Supplied by the King Institute of Preventive Medicine.	92.3
90,243	Municipalities	Do.	Do. do.	95.6
583	Do.	Do.	Supplied by the Bangalore Institute.	96.7
* 10,368	Do.	Glycerinated lymph	Locally prepared	93.4

* Includes cases in Madras City.

The lanoline paste from the King Institute of Preventive Medicine has been used in all the Local Fund districts. The percentage of success obtained in the Local Fund areas is 92.3 against 86.6 in the previous year. From the following table it will be seen that there is a marked improvement in all the districts. A Deputy Inspector of Vaccination was specially deputed to give instruction in the use of lanoline paste in some of the more backward districts. The vaccinators have now become more familiar with the use of lanoline paste and this in no small degree accounts for the better work turned out during the year compared with the previous year:—

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

Districts.	1904-05.	1905-06.	Districts.	1904-05.	1905-06.
Anantapur	85.1	96.2	Nellore	83.0	88.4
Bellary	94.2	97.5	Nilgiris	90.1	98.8
Chingleput	90.1	96.2	North Arcot	91.9	96.7
Coimbatore	78.5	85.3	Salern	86.4	92.7
Cuddapah	89.7	92.4	South Arcot	80.5	95.9
Ganjim	90.6	91.2	South Canara	88.4	94.7
Godavari	78.4	81.2	Tanjore	...	95.2
Kistna	84.2	87.6	Tinnevely	86.7	91.2
Guntur	83.5	88.6	Trichinopoly	86.4	90.1
Kurnool	90.3	93.9	Vizagapatam	79.4	89.2
Madura	92.9	95.5			
Malabar	97.4	98.2	Total	86.6	92.3

14. 20,539 deaths occurred from small-pox against 9,971 last year.

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

16. The Deputy Inspectors of Vaccination of the following ranges have failed to verify 50 per cent. of the cases vaccinated in their ranges:—Anantapur (46.9), Bellary (41.6), East Coimbatore (49.0), Madura (45.0), Paramagudi (40.2), Tellicherry (42.0), Calicut (32.5), Palghat (42.7) and Jeypore (45.6). The explanations offered by these Deputy Inspectors of Vaccination, with the exception of Calicut Deputy Inspector of Vaccination, are satisfactory. This Deputy Inspector has been asked to submit a further explanation on the matter and he will be dealt with on receipt thereof.

17. The total number on the list of Deputy Inspectors is 61 against 60 last year, an additional Deputy Inspector of Vaccination having been appointed to the Guntur district. Of these 36 are Certificated Sanitary Inspectors. Two Deputy Inspectors have retired, one was suspended and eight were fined for carelessness.

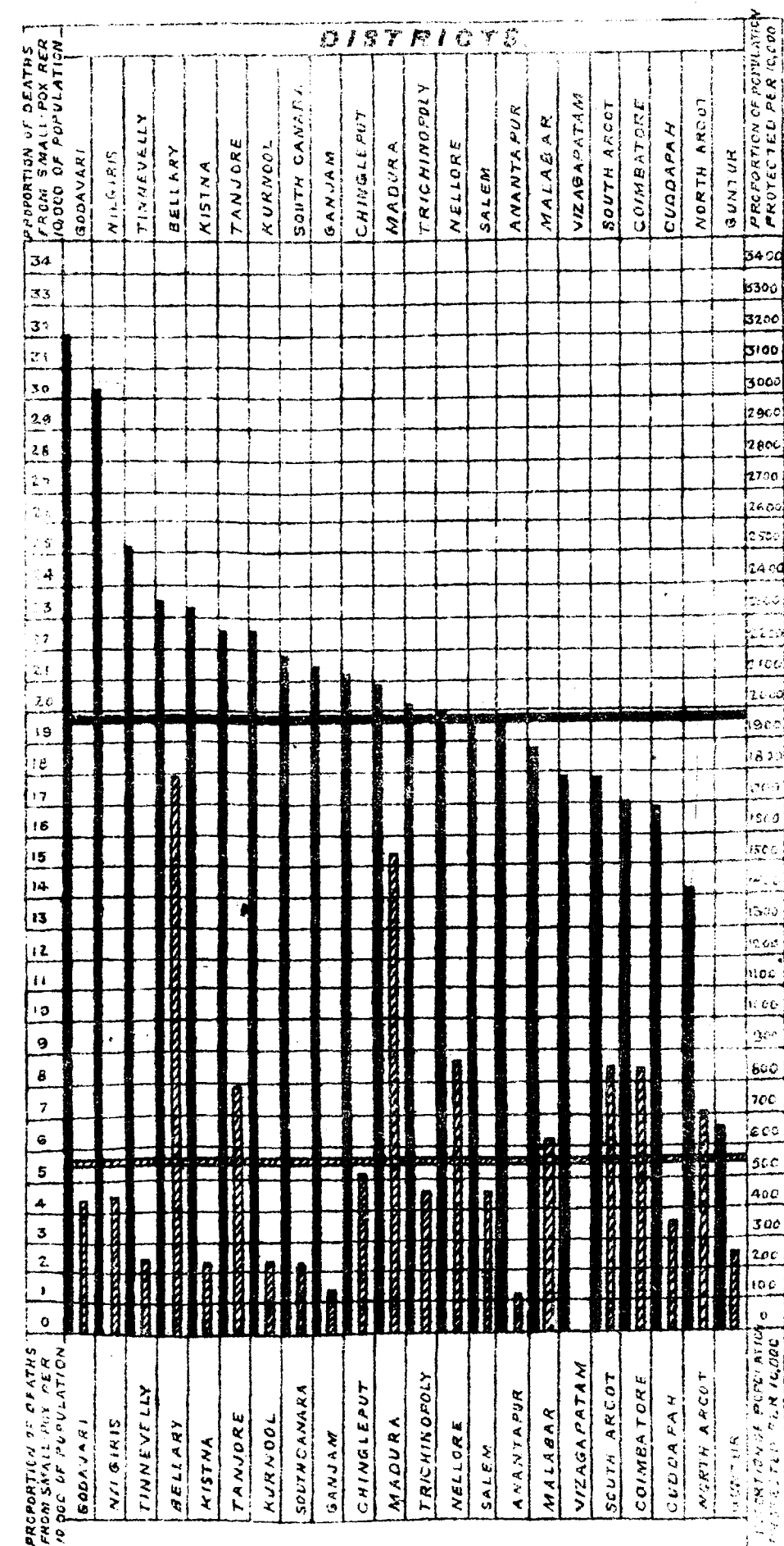
18. The service books of all Deputy Inspectors of Vaccination have been brought up to date.

I have the honour to be,

Sir,

Your most obedient servant,

WM. A. JUSTICE, Captain, I.M.S.,
Ag. Inspector of Vaccination and Deputy Sanitary
Commissioner for Madras.



REFERENCE.

THICK BLACK LINES REPRESENT THE PROPORTION PER 10,000 PROTECTED FROM SMALLPOX.
 SHADED LINES REPRESENT THE PROPORTION OF DEATHS FROM SMALLPOX PER 10,000.

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	Under 1 year.
1	2	3	4	5	6	7	8	9	10
						Males. Females. Total.			
1	Anantapur.	Anantapur circle	454,372		10	10,025	8,846	18,871	1,887
2		Penukonda do.	325,944	141	7	6,639	6,164	12,803	1,820
		Total of district	780,316	141	17	16,664	15,010	31,674	1,863
3	Bellary.	Bellary circle	506,793		15	10,661	9,752	20,413	1,360
4		Harpanahalli circle	291,758	151	9	6,060	5,275	11,325	1,258
		Total of district	798,551	151	24	16,721	15,027	31,738	1,322
5	Chingleput.	Chingleput circle	1,255,907	408	14	12,967	12,038	25,005	1,786
6		Saidapet do.			13	11,292	10,347	21,639	1,664
		Total of district	1,255,907	408	27	24,259	22,385	46,644	1,727
7	Coimbatore.	North Coimbatore circle	588,268	192	11	9,811	9,105	18,916	1,719
8		South do.	640,992	320	10	9,096	8,822	17,908	1,790
9		East do.	885,114	319	17	15,468	14,416	29,884	1,758
		Total of district	2,114,374	270	38	34,365	32,343	66,708	1,755
10	Cuddalore.	Cuddalore circle	1,271,835	146	12	6,365	5,460	11,825	985
11		Madanapalle do.			17	10,385	9,752	20,337	1,196
12		Siddhavaram do.			9	1,875	4,344	6,219	1,024
		Total of district	1,271,835	146	38	21,885	19,556	41,441	1,089
13	Guntur.	Chattapur circle	1,018,905	233	12	11,183	10,854	22,037	1,837
14		Chinnole do.			12	8,540	8,763	17,303	1,449
15		Guntur hill tracts			13	8,047	7,427	15,474	1,196
16		Russalkonda circle			11	9,216	8,058	17,274	1,570
		Total of district	1,018,905	233	48	37,006	35,142	72,148	1,503
17	Kannur.	Kannur circle	1,081,467	274	15	15,427	15,384	30,811	2,054
18		Rajamundry circle			10	4,692	8,564	13,256	1,325
19		Local Fund vaccinators agency.			3	1,855	1,797	3,652	1,217
		Total of district	1,081,467	274	28	26,974	25,745	52,719	1,896
20	Kistna.	Kistna circle	1,646,886	243	17	17,121	16,825	33,946	1,997
21		Maslinatam circle			22	21,791	21,557	43,348	1,970
		Total of district	1,646,886	243	39	38,912	38,382	77,294	1,982
22	Guntur.	Guntur circle	1,446,938		17	14,259	13,665	27,924	1,642
23		Narasaraopet circle			15	12,107	12,036	24,143	1,609
24		Bapatla do.							
		Total of district	1,446,938		32	26,366	25,701	52,067	1,627
25	Kurnool.	Gannam circle	863,806	114	12	7,719	5,981	13,700	1,141
26		Kurnool do.			12	9,398	8,032	17,430	1,452
		Total of district	863,806	114	24	17,117	14,013	31,130	1,297
27	Madura.	Dindigul circle	2,663,074	307	15	13,130	12,189	25,319	1,688
28		Madura do.			17	13,775	12,975	26,750	1,573
29		Paramagudi do.			16	15,146	15,704	30,850	1,923
30		Tirumangalam circle			13	11,762	11,106	22,868	1,907
		Total of district	2,663,074	307	59	53,832	49,924	103,756	1,758

* Bapatla was newly constituted a circle on 17th March 1906. The figures relating to this circle were included in those of Guntur.

DEPARTMENT.

Madras Presidency during the official year 1905-1906.

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.	Unknown.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.	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
1 and under 6 years.	Total of all ages.	Unknown.	Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.	Persons successfully vaccinated per 1,000 of population.	Primary and secondary vaccinations.	Re-vaccination.	Number.	Ratio per 1,000.	Number.
4,691	17,504	137	718	668	5	97.1	93.6	39.9	0.7	0.7			
6,817	11,927	67	154	122	10	94.7	84.7	38.9	0.5	0.5			
15,508	29,431	204	872	790	15	96.2	92.2	38.7	0.7	1.7	21,173	26.8	261
6,645	13,346	138	236	187	10	96.5	82.7	34.4	0.6	4.2			
3,652	10,986	8	214	241	1	99.2	109.2	34.4	0.7	0.4			
10,297	30,332	146	480	428	11	97.5	91.3	35.8	0.5	2.3	28,977	33.7	699
6,455	21,202	723	2,271	2,073	80	96.3	94.6	34.2	3.1	3.5			
6,931	17,465	778	2,359	2,309	167	96.0	92.7	34.2	4.1	6.2			
13,386	38,667	1,501	4,980	4,382	247	96.2	93.6	34.2	3.6	5.0	36,999	29.7	502
5,764	14,406	1,729	317	153	58	85.3	59.0	24.7	9.2	18.2			
5,865	14,357	1,112	490	297	92	88.0	74.6	22.6	6.3	18.6			
10,014	22,081	1,594	1,843	963	246	83.4	60.3	26.0	5.6	13.3			
21,643	50,844	4,435	2,650	1,413	396	85.3	62.7	24.6	6.9	14.9	53,042	25.0	759
6,171	10,390	243	115	94	4	90.6	84.6	29.6	2.0	3.4			
9,232	19,315	24	360	260	18	96.8	78.0	29.6	0.1	5.0			
4,147	7,611	139	123	69	12	84.9	62.1	29.6	1.5	9.7			
10,550	37,316	406	598	423	34	92.4	75.0	29.6	0.9	5.6	30,197	23.6	854
11,049	19,322	710	251	199	22	91.6	86.9	32.4	3.2	8.7			
7,111	14,634	657	381	226	34	90.0	85.3	32.4	3.8	8.9			
7,792	13,271	408	1,103	913	85	94.5	86.6	32.4	2.8	7.7			
9,735	14,252	833	502	453	19	89.4	93.7	32.4	4.0	3.7			
35,687	61,479	2,608	2,237	1,861	160	91.3	89.6	32.4	3.7	7.0	61,293	31.4	421
11,236	22,811	2,069	873	330	117	81.7	45.4	28.2	9.6	16.8			
8,692	12,835	1,348	103	35	57	81.2	67.3	28.2	7.8	52.3			
1,511	2,501	371	9	4	2	76.5	57.1	28.2	10.1	22.2			
24,439	38,150	4,688	991	869	206	81.2	47.0	28.2	9.1	20.8	68,104	31.1	3,122
15,173	25,146	2,455	541	183	115	81.2	42.9	28.2	7.3	21.2			
22,585	39,225	440	388	266	9	92.3	70.2	28.2	1.0	2.3			
38,058	64,371	2,895	929	449	124	87.6	56.8	28.2	3.7	13.3	54,116	26.2	857
13,910	24,977	650	403	350	11	92.9	89.2	31.3	2.3	2.7			
9,431	19,926	301	57	37	2	83.7	67.2	31.3	1.2	3.5			
23,341	44,903	951	460	387	13	88.6	86.6	31.3	1.8	2.8			35
5,263	11,915	75	945	868	32	93.9	95.0	33.3	0.5	3.3			
6,323	15,735	316	363	298	17	93.9	86.1	33.3	1.8	4.6			
12,186	27,650	391	1,308	1,106	49	93.9	82.6	33.3	1.3	3.7	28,186	32.6	347
10,147	21,330	855	1,145	745	101	91.6	71.3	36.1	3.5	8.8			
14,370	24,678	625	677	491	58	96.9	79.3	36.1	2.3	8.5			
17,360	26,595	330	833	660	40	96.0	83.2	36.1	1.1	4.8			
14,489	21,378	345	542	423	51	97.1	88.1	36.1	1.5	9.4			
66,966	93,979	3,155	3,197	2,319	250	95.5	78.7	36.1	2.1	7.8	77,016	28.9	995

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.
21	Malabar.	Tellicherry circle	664,757	451	14	16,380	13,963	30,343	2,159	29,433	1,587
32		Calicut do.	1,054,536		19	23,065	18,384	41,449	2,181	40,688	2,086
33		Palghat do.	874,862		13	19,765	17,075	36,840	2,835	36,047	2,171
		Total of district	2,594,155		46	59,119	49,422	108,541	2,359	106,148	5,866
24	Nellore.	Central circle (Kavali).	1,240,775	166	8	6,966	6,479	13,445	1,680	13,270	4,105
25		Southern do. (Gudur)			11	8,799	7,662	16,461	1,496	15,265	4,535
36		Northern do. (Kanigiri).			10	6,015	5,819	11,834	1,188	11,779	3,450
		Total of district			29	21,780	19,959	41,739	1,464	40,834	12,090
37	Nilgiris.	Nilgiri circle	84,316	90	4	2,097	1,714	3,811	952	3,095	688
		Total of district	84,316	90	4	2,097	1,714	3,811	952	3,095	688
28	North Arcot.	Chittoor circle	695,136	288	13	8,698	8,131	16,829	1,294	15,048	5,899
39		Vellore do.	775,035		12	8,967	7,890	16,857	1,383	15,389	5,189
40		Karvetnagar do.	647,117		11	6,766	6,358	13,024	1,184	12,489	4,325
		Total of district	2,117,288		36	24,431	21,779	46,210	1,283	43,797	15,383
41	Salem.	Northern circle	2,108,659	280	11	8,393	8,066	16,459	1,496	15,788	5,169
42		Salem do.			17	18,884	13,243	32,127	1,895	28,912	6,987
43		Namakkal do.			17	14,419	13,124	27,543	1,620	26,569	6,940
		Total of district			45	36,696	34,433	71,129	1,580	68,289	19,146
44	South Arcot.	Cuddalore circle	2,260,700	435	16	16,357	14,945	31,302	1,959	29,690	10,877
45		Vridhachalam circle			8	7,850	7,336	15,186	1,898	15,312	5,689
46		Tiruvannamalai do.			9	10,296	10,013	20,314	2,257	20,108	7,232
		Total of district			33	34,503	32,301	66,804	2,090	66,110	23,798
47	South Canara.	Northern circle	673,875	271	14	10,977	10,590	21,567	1,540	20,963	3,470
48		Kasaragod do.	413,122		11	7,966	7,553	15,519	1,410	14,890	2,673
		Total of district	1,086,997		25	18,943	18,143	37,086	1,483	36,853	6,343
49	Tanjore.	Tanjore circle	2,025,571	550	15	18,764	12,705	31,469	1,764	25,285	7,281
50		Negapatam do.			13	14,382	13,864	28,246	2,168	24,801	6,889
51		Pattukkottai do.			10	10,238	10,163	20,401	2,040	19,179	5,274
		Total of district			38	38,384	36,722	75,056	1,976	69,365	18,944
52	Tinnevely.	Srivillipattur circle	599,087	320	9	10,796	10,638	21,424	2,380	21,023	11,727
53		Sermadai do.	559,439		10	11,463	10,935	22,417	2,241	22,081	10,811
54		Tinnevely do.	786,087		12	12,993	12,506	25,499	2,125	25,248	13,305
		Total of district	1,944,613		31	35,252	34,079	69,331	2,227	68,302	35,906
55	Tamil Nadu.	Madurai circle	812,046	371	13	15,168	15,002	30,189	2,322	28,667	8,305
56		Arundhaty do.	504,936		10	10,838	10,565	21,398	2,139	20,916	5,282
		Total of district	1,317,010	354	23	26,019	25,567	51,586	2,243	50,086	13,571

DEPARTMENT.

Madras Presidency during the official year 1905-1906—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.		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
16,863	28,913	217	799	327	23	98.9	42.1	43.9	0.7	2.8	...	...	...	...
17,333	29,218	517	781	431	40	97.6	57.2	37.5	1.2	5.8	...	...	...	...
17,879	35,108	209	813	338	37	99.2	43.5	40.5	0.8	4.5	...	...	...	...
62,075	103,239	1,033	2,393	1,086	106	98.2	47.5	40.2	0.9	4.4	68,085	26.2	1,540	0.6
6,570	11,507	483	175	76	9	90.0	45.1	28.4	3.6	5.1	...	...	...	...
6,782	13,198	558	1,172	785	72	89.8	71.3	28.4	3.8	6.1	...	...	...	...
5,458	9,693	332	55	42	6	84.6	85.7	28.4	2.8	10.9	...	...	...	...
18,810	34,398	1,403	1,402	902	87	88.4	68.6	28.4	3.4	6.2	35,783	24.6	1,028	0.8
2,087	3,686	2	116	89	...	99.8	76.7	44.7	0.06	...	...	...	...	...
2,087	3,686	2	116	89	...	99.8	76.7	44.7	0.05	...	3,569	42.2	36	0.4
8,239	16,213	146	891	689	59	98.3	88.8	22.8	0.9	6.6	...	...	...	...
8,328	14,588	387	977	729	61	96.9	79.5	19.6	2.5	6.2	...	...	...	...
6,903	11,952	161	555	317	59	97.0	83.9	18.9	1.2	10.6	...	...	...	...
23,470	41,701	684	2,413	1,785	179	96.7	77.6	20.5	1.5	7.4	44,007	21.2	1,938	0.9
6,244	15,040	129	671	599	33	96.0	93.8	30.4	0.8	4.9	...	...	...	...
12,657	21,494	824	3,214	2,796	182	93.1	91.6	30.4	3.4	5.0	...	...	...	...
12,530	23,414	642	974	658	131	90.3	78.0	30.4	2.4	18.4	...	...	...	...
31,431	59,948	1,595	4,859	4,053	326	92.7	89.4	30.4	2.4	6.7	59,577	28.3	1,151	0.5
14,307	28,416	1,242	612	451	72	96.4	83.5	27.3	4.0	11.7	...	...	...	...
7,493	13,997	614	76	33	31	95.2	73.3	27.3	4.0	40.7	...	...	...	...
10,310	18,796	422	206	112	37	95.4	66.2	27.3	2.0	17.9	...	...	...	...
32,110	61,209	2,278	894	596	140	95.9	79.0	27.3	3.4	15.6	57,508	25.4	2,002	0.9
13,311	20,033	335	604	341	46	98.1	61.1	30.2	1.5	7.6	...	...	...	...
6,669	13,110	506	629	387	88	91.1	65.4	32.6	3.3	6.0	...	...	...	...
18,970	33,149	841	1,233	728	84	94.7	63.4	31.1	2.3	6.8	33,702	31.0	470	0.4
13,393	23,297	580	1,184	940	88	94.3	85.7	34.2	2.2	7.4	...	...	...	...
13,451	23,571	410	3,385	2,769	207	96.6	88.0	34.2	1.6	6.1	...	...	...	...
9,511	17,798	389	1,222	971	84	94.6	85.3	34.2	1.9	6.8	...	...	...	...
36,355	64,656	1,373	5,791	4,710	379	95.2	87.0	34.2	1.9	6.5	65,780	16.6	1,533	0.7
6,221	18,666	415	401	309	14	90.5	79.8	31.6	1.9	3.4	...	...	...	...
7,752	19,753	416	396	318	23	91.3	87.6	31.6	1.8	5.9	...	...	...	...
8,635	22,938	199	251	203	2	91.5	81.6	30.1	0.7	0.8	...	...	...	...
22,608	41,857	1,030	1,038	880	39	91.2	83.1	32.3	1.5	8.7	70,426	31.8	792	0.4
15,408	25,816	1,568	501	318	75	91.8	74.2	31.6	1.4	14.9	...	...	...	...
10,322	16,978	1,572	480	295	121	87.7	80.2	31.6	1.2	15.2	...	...	...	...
25,730	42,780	3,140	981	611	106	90.1	82.9	32.3	1.2	8.2	40,124	30.4	193	0.1

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A—VACCINE

STATEMENT No. 1 showing the Particulars of Vaccination in the

Primary and

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 year.	Total number of persons vaccinated.	Average number of persons vaccinated by each vaccinator.	Total.	Under 1 year.
1	2	3	4	5	6	7	8	9	10
57	Gunnur circle ... Zamindari vaccinators.				5	Males. 2,646 Females. 2,451 Total. 5,096	1,019	4,911	1,000
	Total of hill tracts				4	2,460 2,111 4,571	1,143	4,356	625
58	Jaypore circle				9	5,105 4,562 9,667	1,074	9,267	1,625
59	Vizagapatam circle Government vaccinators (Gudem hills)				15	10,538 9,853 20,391	1,359	20,330	2,064
60	Vizianagaram circle				14	13,266 12,127 25,393	1,885	26,024	6,330
	Total of district				23	290 18,822 18,723 37,545	609 1,632	606 30,547	70 10,711
	Total of circles and districts				62	48,080 46,575 94,655	1,526	92,774	20,740
1	Bangalore				2	89,599 6,929 96,528	1,041	1,341	421
2	Secunderabad				4	91,114 4,795 95,909	2,669	6,082	2,977
	Total of cantonments				6	180,713 5,680 186,393	4,465	2,968	3,398
	* Medical Subordinates.					14,101 474 14,575		3,038	11
1	Adoni				1	30,416 15,208 45,624	813	585	814
2	Anantapur				1	7,938 7,938 15,876	239	151	390
3	Anakapalle				1	18,539 1,546 20,085	407	419	826
4	Bellary				4	58,247 2,240 60,487	1,357	1,398	2,755
5	Berhampur				1	25,729 6,432 32,161	622	583	1,205
6	Bewda				1	24,324 4,609 28,933	1,205	1,085	2,290
7	Bimlipatam				1	10,212 2,446 12,658	704	545	1,249
8	Calicut				1	76,981 5,921 82,902	243	235	478
9	Cannanore				4	27,811 4,795 32,606	5,105	3,187	8,292
10	Chicalole				2	18,199 9,954 28,153	2,268	1,019	3,287
11	Chidambaram				1	19,909 6,065 25,974	441	595	1,036
12	Chingleput				1	10,551 9,854 20,405	343	262	605
13	Cochin				1	19,274 22,027 41,301	750	855	1,605
14	Cocanada				2	48,096 6,012 54,108	4,191	1,066	5,257
15	Coimbatore				2	53,080 17,693 70,773	1,720	1,160	2,880
16	Conjeevaram				2	46,164 11,535 57,699	874	1,848	2,722
17	Coonoor				2	8,525 947 9,472	318	259	577
18	Cuddalore				1	52,216 3,926 56,142	1,779	1,247	3,026
19	Cuddapah				2	16,432 942 17,374	568	364	932
20	Dindigul				2	25,182 8,391 33,573	907	534	1,441
21	Ellore				2	33,521 11,174 44,695	2,001	1,374	3,375
22	Erode				1	15,529 15,529 31,058	360	278	638
23	Gadagipattam				1	21,335 2,665 24,000	454	314	768
24	Gannur				1	30,839 1,719 32,558	932	642	1,474
25	Karir				1	12,769 12,769 25,538	358	262	620
26	Kodakanal				1	1,912 161 2,073	85	67	152
27	Kumbakonam				2	59,673 9,945 69,618	1,068	895	1,963
28	Kurnool				1	25,376 5,147 30,523	843	488	1,331
29	Madras				27	509,346 18,864 528,210	32,764	20,662	53,426
30	Madura				4	105,984 17,664 123,648	3,836	2,913	6,749
31	Mannargudi				1	29,440 3,408 32,848	480	131	611
32	Mangalore				2	44,108 9,541 53,649	1,217	1,129	2,346
33	Marulipattam				1	39,507 1,796 41,303	856	634	1,490
34	Mayavaram				1	24,276 8,092 32,368	725	387	1,112
35	Nandyal				1	15,137 3,027 18,164	629	230	859
36	Negapatam				3	12,864 3,238 16,102	4,266	1,796	6,062
37	Nellore				1	980 600 1,580	980	600	1,580
38	Onzole				1	1,547 762 2,309	429	223	652
39	Ootacamund				2	18,598 1,690 20,288	949	551	1,500

* 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 1905-1906--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.		Unknown.	Total.	Successful.	Unknown.	Primary and secondary vaccinations.	Re-vaccination.	Primary secondary vaccinations.		Re-vaccination.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	
1 and under 6 years.	Total of all ages.														
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
2,746 2,799	4,341 3,989	340 52	185 215	141 204	36 2	94.9 92.6	94.6 95.7	...	6.9 1.1	19.4 0.9	...	...	...	...	
5,475	8,330	392	400	345	38	93.8	95.3	...	4.2	9.5	...	...	...	...	
10,022	17,335	766	61	39	1	88.6	65.0	...	3.8	1.6	...	...	...	...	
14,243	22,456	983	369	227	55	89.6	72.2	...	3.7	14.9	...	...	...	...	
293 18,496	442 31,596	47 673	3 998	...	1 36	79.0 88.0	...	...	7.7 1.8	33.3 3.6	...	...	...	...	
48,529	80,159	2,861	1,831	1,479	181	89.2	87.0	21.8	3.1	7.1	71,427	25.2	108	0.04	
583,236	1,108,417	36,619	41,603	30,896	3,172	92.3	80.1	31.6	2.9	7.6	1,009,091	28.1	119,673	0.5	
40 995	461 4,481	...	834 1,648	719 698	...	83.0 98.4	86.3 48.2	13.2 56.3	...	...	974 4,923	10.8 54.0	68 5	0.7 0.05	
1,035	4,892	31	2,382	1,417	100	97.6	62.1	24.9	0.6	4.2	5,897	82.6	78	0.4	
35	2,289	170	11,537	8,554	432	79.5	77.0	...	5.6	3.7	...	...	...	...	
171 82 88 712 191 162 68 1,445 1,363 68 95 50 161 371 635 261 180 321 154 167 1,017 126 140 140 98 15 435 216 5,450 966 157 724 139 150 79 1,547 187 33 60	1,047 278 752 2,100 1,017 1,068 410 6,803 2,937 620 540 449 923 1,556 2,017 1,640 453 1,991 532 1,001 2,576 619 719 1,108 461 128 1,708 963 24,868 6,183 771 1,989 1,191 810 762 4,321 1,055 407 810	45 3 1 1 16 3 20 46 ...	124 81 69 1,008 120 172 ...	79 30 43 286 90 129 12 1,360 557 357 26 444 221 3,398 731 108 88 598 134 236 374 541 48 77 60 387 224 62 24 132 138 358 28,049 471 100 74 301 202 190 89 1,161 243 163 616	20 4 16 23 6 ...	88.5 90.8 92.1 89.5 95.1 99.4 88.3 97.5 97.9 95.8 95.4 97.0 89.6 65.1 88.5 94.3 98.9 78.2 93.8 94.4 92.5 62.3 97.4 99.1 99.5 99.1 98.4 95.3 97.2 92.4 96.0 98.9 97.8 97.6 88.4 99.8	75.9 38.9 81.1 28.3 92.8 77.7 63.2 91.9 76.9 92.0 100.0 73.8 58.1 75.5 65.1 86.5 74.1 88.1 63.8 70.5 62.7 62.3 76.5 78.2 62.6 58.3 80.5 56.6 71.2 96.7 88.1 87.0 75.7 79.1 94.1 81.1 51.0 94.7 91.9	37.0 38.8 42.8 40.9 43.0 49.4 41.3 103.4 125.6 53.6 28.4 84.6 54.1 68.6 45.9 37.1 60.5 46.9 40.5 49.9 86.4 36.5 30.8 43.2 40.9 73.2 80.7 43.6 82.8 41.3 51.0 84.0 41.1 55.6 95.8 40.5 44.3 76.6	3.6 0.9 0.1 0.04 1.4 0.2 ...	16.1 4.9 23.2 ...	1.141 292 760 2,042 999 1,241 421 7,262 2,234 835 603 671 1,215 3,659 1,591 1,621 603 2,664 472 1,336 3,493 486 772 1,215 488 127 1,839 982 5,584 707 2,508 1,209 866 733 3,718 976 500 1,089	37.5 36.7 40.9 35.0 38.8 51.2 41.2 94.3 50.3 45.8 30.2 33.5 63.0 76.0 29.9 35.1 70.7 51.0 28.7 53.0 104.2 31.2 36.1 39.4 38.2 68.4 30.8 38.6 56.4 34.5 56.7 30.6 33.2 48.4 66.9 30.4 38.9 53.8	1 1 1 35 2 9 1 174 63 1 4 97 14 43 13 1 8 7 18 15 12 9 3 1 1 85 2 28 7 4 19 3 117 2 28 4 14 19 2 1	0.08 0.1 0.06 0.6 0.07 0.3 0.09 2.2 2.2 0.05 0.1 0.2 0.1	

A—VACCINE DEPARTMENT.

(STATEMENT No. II showing the Cost of the Department in the Madras Presidency during the official year 1905-1906)

[illegible]

13	Chattrapuri circle	1	1,043	3	7	4	7	1	1,680	1	1	180	0	0	1	74	14	11	2,378	3	7
14	Chitole do.	1	840	0	3	2	8	1	1,589	8	0	180	0	0	1	72	0	0	2,601	8	0
15	Ganjam Hill tracts	1	1,140	0	3	2	5	5	1,932	11	1	...	...	...	1	84	0	0	3,186	11	4
16	Rasoolbonda	1	480	0	3	3	6	4	1,506	13	3	...	...	...	1	72	0	0	2,038	13	3
	Total of district	3	3,503	3	10	13	27	11	6,749	1	5	360	0	0	4	302	14	11	10,915	4	2
17	Cocanada circle	1	480	0	0	8	7	...	2,227	8	2	120	0	0	1	84	0	0	2,911	8	2
18	Bojshundery circle	1	900	15	3	5	5	...	1,706	0	6	116	2	11	1	81	0	0	2,813	2	8
19	Local Fund vaccinators in Agency.	1	608	11	4	3	3	...	535	15	3	100	15	3	1	68	12	7	1,404	0	5
	Total of district	1	1,988	10	7	15	15	...	4,559	7	11	336	2	2	3	243	12	7	7,129	1	3
20	Ellore circle	1	849	9	7	10	7	1	2,354	0	8	131	15	1	1	84	0	0	3,419	9	4
21	Masulipatnam circle	1	948	8	0	6	9	7	3,490	8	5	107	15	6	1	81	0	0	4,630	5	11
	Total of district	2	1,797	12	7	16	16	8	5,844	4	1	239	14	7	2	165	0	0	8,049	15	3
22	Guntur circle	1	917	14	8	4	5	7	1,806	2	0	107	14	0	1	84	0	0	2,975	14	6
23	Narasaraopet circle	1	480	0	0	4	5	5	1,306	8	1	104	10	0	1	81	0	0	1,974	13	1
24	Bapatna	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total of district	1	1,397	14	8	8	10	12	3,172	5	1	212	8	0	2	168	0	0	4,950	11	7
25	Cumbham circle	1	787	9	8	4	4	5	1,505	13	11	...	...	...	1	84	0	0	2,327	7	7
26	Kurruol do.	1	840	0	0	4	4	4	1,456	12	2	...	...	...	1	84	0	0	2,380	12	2
	Total of district	1	1,577	9	8	8	8	9	2,962	10	1	...	...	...	2	168	0	0	4,708	3	9
27	Dindigul circle	1	584	15	6	3	10	2	1,865	15	8	120	0	0	1	72	0	0	2,922	15	2
28	Madura do.	1	837	7	0	5	9	3	2,218	15	5	120	0	0	1	72	0	0	3,218	6	5
29	Pannagudi do.	1	735	14	10	6	8	2	2,444	2	0	118	6	1	1	72	0	0	3,335	6	11
30	Thirunagallay circle	1	480	0	0	4	5	2	1,509	11	6	118	4	11	1	72	0	0	2,150	0	5
	Total of district	2	2,698	5	4	18	32	9	5,038	12	7	331	11	0	4	288	0	0	11,256	12	11
31	Tellicherry circle	1	836	3	7	4	10	...	2,071	10	1	...	...	...	1	84	0	0	2,991	13	8
32	Calicut do.	1	446	14	1	4	15	...	2,546	5	9	...	...	...	1	70	0	0	3,083	3	10
33	Palghat do.	1	528	12	0	4	8	...	1,591	7	6	...	...	...	1	84	0	0	2,199	3	0
	Total of district	1	1,806	13	8	12	33	...	6,209	6	10	...	...	...	3	238	0	0	8,251	4	6
34	Central circle (Kavali)	1	520	0	0	3	4	1	1,283	5	11	...	...	...	1	84	0	0	1,887	5	11
35	Southern do. (Pudur)	1	480	0	0	3	7	2	1,548	6	2	...	...	...	1	81	0	0	2,112	6	2
36	Northern do. (Kankiri)	1	913	10	0	2	6	2	1,121	2	9	...	...	...	1	84	0	0	2,118	12	9
	Total of district	1	1,913	10	0	8	17	5	3,952	14	10	...	...	...	3	252	0	0	6,118	8	10

* Bavaria was newly constituted a circle on 17th March 1906. The figures relating to this circle were included in those of Guntür.

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.			Primary and	
						Average number of persons vaccinated by each vaccinator.			Total.	Under 1 year.
1	2	3	4	5	6	7			8	9
						Males.	Females.	Total.		
40	Municipalities—cont.	Palamcottah	39,545	9,886	2	1,088	887	1,925	962	1,027
41		Palghat	44,177	3,681	2	1,146	1,134	2,280	1,140	1,338
42		Parlakimedi	17,336	52,008	1	659	381	1,040	1,040	909
43		Periyakulam	17,960	23,927	1	504	389	893	893	786
44		Palni	17,168	9,810	1	631	305	936	936	652
45		Rajahmundry	36,408	3,034	2	1,518	918	2,435	1,216	593
46		Salem	70,621	6,500	2	1,729	1,448	3,177	1,588	1,074
47		Srirangam	23,039	3,291	1	631	640	1,271	1,271	2,304
48		Srivillipattūr	26,382	21,105	1	577	586	1,163	1,163	350
49		Tanjore	57,870	7,716	2	1,179	872	2,051	1,025	984
50		Tellicherry	27,883	11,153	2	909	649	1,558	779	1,438
51		Tinnevely	40,469	5,058	2	985	761	1,746	873	910
52		Trichinopoly	104,721	8,727	5	5,069	3,753	8,822	1,764	1,136
53		Tirupattūr	18,689	7,475	1	338	301	639	639	435
54		Tirupati	15,485	4,266	1	418	283	701	701	387
55		Tiruvannamalai	17,069	1,552	1	422	302	724	724	472
56		Tuticorin	28,048	9,340	1	836	592	1,428	1,313	568
57		Vaniyambadi	12,005	4,802	1	421	461	882	882	853
58		Vellore	43,537	6,966	2	982	543	1,525	762	643
59		Vizagapatam	40,892	7,789	1	956	646	1,602	1,108	519
60		Visianagram	34,589	8,646	1	1,139	982	2,121	1,071	925
61		Walajapet	10,067	10,067	1	299	206	505	505	1,173
		Total of municipalities	2,422,127	5,335	120	100,989	66,592	167,581	1,896	1,165
		Grand Total	*38,227,818	271	872	778,798	684,092	1,462,890	† 1,860	1,356,441

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 1905-1906—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.	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
150	1,456	...	298	248	...	89.4	88.2	43.0	...	...	1,728	48.6	26	0.9
426	1,968	...	262	229	...	93.6	87.4	50.1	...	...	2,115	47.8	27	0.6
174	874	...	181	97	...	96.1	74.0	56.0	...	...	936	53.9	1	0.05
107	759	3	107	73	33	96.9	97.2	48.2	0.3	80.8	831	46.9	...	...
93	550	...	343	226	73	92.7	88.7	45.2	...	21.2	734	42.7	1	0.05
696	1,788	12	505	308	71	93.6	70.9	57.8	0.6	14.0	2,203	60.5	24	0.6
344	2,678	2	436	177	59	97.7	46.9	40.4	0.7	13.5	2,522	35.7	4	0.6
510	1,212	20	15	12	1	98.0	85.7	53.1	1.5	6.6	1,172	50.8	5	0.2
68	1,048	1	62	44	6	95.2	78.6	41.3	0.9	9.6	1,171	44.8	2	0.7
275	1,859	...	140	98	5	97.2	72.5	33.8	...	3.5	1,855	32.0	18	0.3
147	1,229	11	305	163	67	98.9	68.4	49.9	0.8	21.9	1,066	38.2	7	0.2
135	1,314	18	198	164	12	85.8	88.1	36.5	1.1	6.0	1,542	38.1	15	0.3
3,693	7,375	50	1,202	999	80	97.4	89.0	79.9	0.6	6.6	7,887	75.3	13	0.1
63	517	5	69	39	3	91.5	59.0	29.7	0.7	4.3	592	31.6	13	0.6
76	471	...	206	148	34	95.1	86.0	39.9	...	16.5	455	29.3	5	0.3
45	583	1	156	80	33	94.8	65.0	36.2	0.2	21.1	677	39.6	1	0.05
308	1,245	1	115	82	...	94.8	71.3	47.3	0.7	...	1,253	44.6	6	0.2
182	886	1	12	9	...	96.2	75.0	70.3	0.1	...	758	63.1	10	0.3
289	843	215	417	71	146	94.4	28.2	20.9	19.4	85.0	1,657	38.0	68	1.3
260	1,289	4	278	92	63	93.8	42.7	32.5	0.3	22.6	1,474	36.0	...	...
222	1,526	10	460	398	24	91.8	92.2	55.4	0.5	5.3	1,659	47.9	...	...
90	448	3	50	44	3	99.1	93.6	48.8	0.6	6.0	395	39.2	1	0.09
26,797	110,989	1,585	50,927	32,443	6,404	96.4	72.9	59.2	1.3	12.5	122,328	50.5	1,082	0.4
611,103	1,221,578	38,405	106,449	73,219	10,108	92.7	76.0	38.7	2.8	9.5	1,137,316	29.7	20,829	0.5

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

subordinates is excluded.

A—VACCINE DEPARTMENT.

Number—cont.	Districts—cont.	Expenditure—cont.			Total cost.	Paid from					Total.	Number of all successful vaccinations and re-vaccinations.	Average cost of each successful case.
		Travelling allowance.	Contingencies.			Imperial funds.	Provincial funds.	Local funds.	Municipal funds.	Zemindari.			
		19	20		21	22	23	24	25	26	27	28	29
1	Anantapur.	230 12 0	1,877 15 3	RS. A. P.	4,298 11 5	...	1,848 18 7	2,944 18 10	...	...	4,298 11 5	18,172	0 3 9
2	Penukonda do.	201 14 0	1,128 8 7	...	2,978 8 10	...	709 12 0	2,263 12 10	...	...	2,978 8 10	12,044	0 8 11
	Total of district	432 10 0	2,905 7 10	...	7,982 4 8	...	2,053 9 7	5,208 10 8	...	...	7,982 4 8	30,221	0 3 10
3	Bellary.	242 7 0	650 0 11	...	4,355 2 10	...	1,166 7 11	3,190 10 11	...	...	4,355 2 10	19,533	0 3 7
4	Harpanahalli circle	204 1 0	489 1 7	...	2,916 8 2	...	741 0 6	2,175 2 8	...	...	2,916 8 2	11,227	0 4 2
	Total of district	446 8 0	1,109 2 6	...	7,283 6 0	...	1,907 8 5	5,374 13 7	...	...	7,282 6 0	30,760	0 3 9
5	Chingleput circle	980 3 1	1,342 8 11	...	5,091 15 6	...	1,144 8 0	3,947 7 3	...	...	5,091 15 6	23,275	0 3 6
6	Saibapet do.	852 11 7	1,080 3 3	...	4,503 5 8	...	1,161 8 6	3,351 13 2	...	...	4,503 5 8	19,774	0 3 7
	Total of district	1,732 14 8	2,333 12 1	...	9,595 5 2	...	2,316 0 6	7,299 4 8	...	...	9,595 5 2	43,049	0 3 7
7	North Coimbatore circle	487 9 2	889 11 9	...	2,384 11 11	...	1,087 9 6	2,747 2 5	...	...	3,831 11 11	14,569	0 4 2
8	South do.	256 1 8	839 12 2	...	3,181 11 8	...	636 7 0	2,455 4 8	...	...	3,181 11 8	14,654	0 3 6
9	East do.	394 7 10	1,397 13 4	...	5,184 4 4	...	1,357 4 9	3,826 15 7	...	...	5,184 4 4	23,044	0 3 7
	Total of district	1,127 2 9	3,057 4 3	...	12,300 11 11	...	3,141 5 3	9,059 6 8	...	...	12,299 11 11	52,257	0 3 8
10	Cuddalore circle	965 11 11	936 12 3	...	4,507 2 8	...	1,807 4 4	4,139 14 4	...	...	4,507 2 8	19,981	0 6 10
11	Madanapalle do.	1,128 5 1	741 5 10	...	3,338 11 5	...	1,311 8 6	4,117 2 11	...	...	5,328 11 5	18,575	0 4 4
12	Siddharatham circle	805 15 10	368 6 1	...	3,307 9 6	...	780 0 0	2,567 9 0	...	...	3,307 9 6	7,680	0 6 10
	Total of district	2,449 0 10	1,686 6 3	...	13,148 7 7	...	3,238 12 10	9,844 10 9	...	...	13,148 7 7	87,739	0 5 7

3	Chattapan circle	520	9	4	1,908	12	7	4,816	9	6	19,521	0	3	11
4	Chittoor do.	487	2	3	781	7	7	3,860	1	9	14,930	0	4	4
5	Ganjam Hill tracts	535	1	8	699	14	7	4,449	11	7	14,184	0	5	0
6	Brasalkonda	349	15	7	573	14	6	3,982	11	4	14,705	0	3	2
	Total of district	1,929	12	9	3,304	1	3	16,209	2	2	53,340	0	4	1
17	Cocoaada circle	1,211	4	4	986	9	6	5,109	6	0	23,141	0	3	6
18	Rajahmundry do.	977	12	0	599	0	9	4,889	15	5	12,870	0	5	5
19	Local Fund vaccinators in Agency.	930	14	0	220	4	10	2,555	9	3	2,508	1	0	8
	Total of district	3,119	14	4	1,805	15	1	12,064	14	8	38,519	0	5	0
20	Ellore circle	1,311	13	11	952	2	7	5,593	9	10	25,329	0	3	6
21	Masulipatam circle	503	15	0	1,672	3	8	6,906	8	2	39,491	0	2	9
	Total of district	1,715	12	11	2,624	5	10	12,390	2	0	64,820	0	3	0
22	Guntur circle	971	13	5	1,327	7	2	5,175	3	1	23,327	0	3	3
23	Narsaopet circle	734	1	7	659	3	6	3,368	2	2	19,963	0	2	8
24	Bapatla	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total of district	1,705	15	0	1,986	10	8	8,543	5	3	45,280	0	3	0
25	Gumbam circle	259	10	0	416	0	7	3,043	2	2	12,783	0	3	9
26	Kurnool do.	909	1	11	1,039	5	11	4,329	4	0	16,093	0	4	2
	Total of district	1,168	11	11	1,455	6	6	7,272	6	2	28,816	0	4	0
27	Dindigul circle	169	9	6	770	15	4	3,463	8	0	22,075	0	2	6
28	Madura do.	350	11	1	1,124	2	0	4,723	3	6	25,167	0	3	0
29	Paramagundi do.	227	0	0	913	15	11	4,486	6	10	27,255	0	2	8
30	Tirumangalam circle	240	9	0	941	14	7	3,362	8	0	21,801	0	2	6
	Total of district	989	13	7	3,750	15	10	16,037	10	4	96,298	0	2	8
31	Tellicherry circle	353	14	0	1,233	4	6	4,578	0	2	29,240	0	2	6
32	Calicut do.	412	10	8	1,277	12	9	4,753	11	3	39,039	0	1	11
33	Palghat do.	404	13	0	1,873	0	9	4,477	0	9	35,440	0	2	0
	Total of district	1,171	5	8	4,384	2	0	13,809	12	2	104,325	0	3	1
34	Central circle (Kavali)	630	2	2	798	10	6	3,316	2	7	11,632	0	4	7
35	Southern do. (Gadur)	793	7	9	891	9	0	3,797	6	11	13,968	0	4	4
36	Northern do. (Kanigiri)	629	14	5	462	4	9	3,210	15	11	9,785	0	5	3
	Total of district	2,058	8	4	2,152	8	3	10,324	9	5	35,300	0	4	8

Expenditure

41911X

•VACCINATION RETURN.

APPROX.

архив: 205

† Four Assistant Deputy Inspectors.

INVESTIGATION REPORT

SA31177 NOLA NOVA

A—VACCINE DEPARTMENT.

STATEMENT No. II showing the Cost of the Department in the Madras Presidency during the official year 1905-1906—continued.

APPENDIX.

Number—cont.	Districts—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.	Zamindaries.							
37	Mylapore.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.
	Nigeria	361	6	6	241	14	1	2,513	11	2	984	7	8	1,529	8	6
	Total of district	361	6	6	241	14	1	2,513	11	2	984	7	8	1,529	8	6
38	North Arcot.	1,147	3	1	800	10	0	4,863	15	8	1,465	6	11	3,398	8	9
39	Chittoor circle	864	14	3	304	23	0	1,152	1	8	1,407	15	8	2,711	2	0
40	Yellore do.	809	15	2	771	11	3	3,580	14	4	793	5	6	2,787	8	10
	Karvetnagar circle															
	Total of district	2,832	0	6	2,447	1	3	12,596	15	8	2,966	12	1	8,930	3	7
41	Madras.	369	14	0				8,587	5	10	8,587	5	10			
	Madras Presidency town															
	Total of district	369	14	0				8,587	5	10	8,587	5	10			
42	Salem.	173	1	0	303	6	3	2,593	12	3	638	5	2	1,958	7	3
43	Northern circle															
44	Salem do.	301	5	0	1,840	7	11	4,765	7	11	889	10	10	3,865	13	1
	Memal do.	139	5	0	1,630	10	9	4,382	2	7	610	3	9	3,671	15	10
	Total of district	673	11	0	3,763	6	26	11,624	6	11	2,128	3	9	9,494	4	2
45	South Arcot.	1,102	3	0	1,300	9	0	5,456	13	11	875	14	7	4,580	15	4
46	Qandahar circle															
47	Vridhachalam circle	443	3	3	2,005	5	5	3,037	14	5	708	5	0	1,931	9	5
	Tiruvannamalai do.	731	11	11	1,306	5	3	4,069	4	1	609	8	8	3,360	11	10
	Total of district	2,377	1	7	3,351	4	3	12,954	0	5	2,351	11	10	10,602	4	7

VACCINATION RETURNS.

48	Northern circle	...	983 5 10	763 15 7	5,837 9 3	...	810 0 0	4,927 6 3	...	...	5,837 9 3	20,374	0 4 7
49	Kasargod do.	...	770 3 2	568 11 7	4,711 0 11	...	809 13 0	3,901 3 11	...	...	4,711 0 11	13,497	0 5 7
50	Total of district	...	1,749 9 0	1,332 11 2	10,548 7 2	...	1,619 13 0	8,828 10 2	...	...	10,568 7 2	33,871	0 4 11
51	Tanjore circle	...	384 6 0	1,113 15 1	4,782 7 10	...	1,230 14 7	3,551 9 3	...	...	4,782 7 10	24,247	0 3 2
52	Nagapattinam do.	...	276 0 0	1,753 11 0	4,318 14 0	...	733 1 0	3,585 13 0	...	...	4,318 14 0	26,370	0 2 7
53	Tutukottai do.	...	231 12 0	1,178 4 3	3,261 2 8	...	746 14 4	2,515 4 4	...	...	3,261 2 8	18,769	0 2 9
54	Total of district	...	891 4 0	4,039 14 11	12,362 9 0	...	2,710 14 5	9,631 10 7	...	...	12,362 9 0	69,376	0 2 10
55	Sriniputtur circle	...	982 15 3	702 13 11	3,314 14 6	...	636 15 6	2,677 15 0	...	...	3,314 14 6	18,075	0 2 9
56	Sarnad do.	...	403 2 3	775 1 3	2,751 15 3	...	709 5 6	2,042 10 3	...	...	2,751 15 3	20,071	0 2 2
57	Tinnevely do.	...	571 10 4	813 7 0	3,721 13 1	...	1,065 3 0	2,656 9 4	...	...	3,721 13 1	23,111	0 2 6
58	Total of district	...	1,557 12 3	2,251 6 8	9,038 11 4	...	2,431 8 9	7,237 2 7	...	...	9,038 11 4	62,187	0 2 6
59	Triplicopoly circle	...	371 0 3	1,301 1 0	4,583 11 11	...	1,138 5 5	3,445 6 6	...	...	4,583 11 11	26,182	0 2 8
60	Arivud do.	...	236 7 0	1,887 15 1	4,012 2 6	...	342 8 8	3,190 9 10	...	...	4,012 2 6	17,208	0 3 8
61	Total of district	...	624 0 3	3,189 0 1	8,595 14 5	...	2,000 14 1	6,595 0 4	...	...	8,595 14 5	43,490	0 3 2
62	Gungur circle	...	587 0 0	415 0 2	2,193 14 11	...	1,078 4 5	1,115 19 3	...	...	2,193 14 11	14,382	0 7 9
63	Zamindari vaccinators	...	249 10 0	132 7 0	837 1 0	...	...	...	...	837 1 0	867 1 0	4,193	0 3 3
64	Total of Hill tracts	...	836 10 0	439 7 2	3,030 15 11	...	1,078 4 8	1,115 19 3	...	...	3,030 15 11	8,155	0 5 8
65	Jeyore circle	...	1,249 15 9	818 15 6	5,258 13 0	...	1,022 4 0	3,936 9 0	...	...	5,258 13 0	17,371	0 4 3
66	Vizagapatnam circle	...	1,671 5 6	2,035 6 11	5,826 4 2	...	1,246 7 7	4,579 12 7	...	...	5,826 4 2	22,583	0 4 1
67	Government vaccinators	...	85 6 0	26 9 10	228 15 10	...	228 15 10	...	...	...	228 15 10	442	0 8 3
68	(Gudem hills).	...	1,246 5 9	2,648 1 1	8,184 2 6	...	1,514 6 5	6,669 12 0	...	...	8,184 2 6	32,464	0 4 0
69	Vishanagram circle	...	4,589 15 0	6,037 8 6	22,569 3 4	...	5,890 6 6	16,691 11 10	...	...	22,569 3 4	81,038	0 4 5
70	Total of district	...	36,324 13 7	60,346 7 10	257,467 6 4	...	68,678 6 3	1,87,928 15 1	...	...	257,467 6 4	1,131,228	0 3 7

A—VACCINE DEPARTMENT.

STATEMENT No. II showing the Cost of the Department in the Madras Presidency during the official year 1905-1906—continued.

Number—cont.	Municipalities—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.	Zamindaries.			
19	20	21	22	23	24	25	26	27	28	29		
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.		
1	Adali	105 8 8	306 10 0	306 10 0	306 10 0	306 10 0	306 10 0	306 10 0	306 10 0	1,126	0 4 4	
2	Adampur	98 7 3	144 7 3	144 7 3	144 7 3	144 7 3	144 7 3	144 7 3	144 7 3	865	0 4 4	
3	Anakpalle	112 2 4	213 2 4	213 2 4	213 2 4	213 2 4	213 2 4	213 2 4	213 2 4	795	0 4 4	
4	Bellary	171 8 5	682 15 10	682 15 10	682 15 10	682 15 10	682 15 10	682 15 10	682 15 10	2,386	0 4 4	
5	Berampur	86 2 7	294 11 4	294 11 4	294 11 4	294 11 4	294 11 4	294 11 4	294 11 4	1,107	0 4 4	
6	Berrada	67 10 3	330 10 3	330 10 3	330 10 3	330 10 3	330 10 3	330 10 3	330 10 3	1,197	0 4 4	
7	Bimlpetam	25 14 5	253 11 0	253 11 0	253 11 0	253 11 0	253 11 0	253 11 0	253 11 0	422	0 4 4	
8	Calicut	896 6 6	963 2 10	963 2 10	963 2 10	963 2 10	963 2 10	963 2 10	963 2 10	7,963	0 4 4	
9	Canannore	143 8 7	479 5 1	479 5 1	479 5 1	479 5 1	479 5 1	479 5 1	479 5 1	3,121	0 4 4	
10	Chiswale	65 2 10	256 2 10	256 2 10	256 2 10	256 2 10	256 2 10	256 2 10	256 2 10	977	0 4 4	
11	Chidambaram	110 9 2	319 9 2	319 9 2	319 9 2	319 9 2	319 9 2	319 9 2	319 9 2	566	0 4 4	
12	Chingelput	66 12 2	197 2 2	197 2 2	197 2 2	197 2 2	197 2 2	197 2 2	197 2 2	833	0 4 4	
13	Cuchin	68 12 2	276 1 3	276 1 3	276 1 3	276 1 3	276 1 3	276 1 3	276 1 3	1,044	0 4 4	
14	Coimbatore	254 15 3	560 3 3	560 3 3	560 3 3	560 3 3	560 3 3	560 3 3	560 3 3	3,309	0 4 4	
15	Colimbatore	170 8 1	400 8 1	400 8 1	400 8 1	400 8 1	400 8 1	400 8 1	400 8 1	7,457	0 4 4	
16	Conjeevaram	83 10 3	301 11 4	301 11 4	301 11 4	301 11 4	301 11 4	301 11 4	301 11 4	1,717	0 4 4	
17	Coonoor	306 11 10	520 14 10	520 14 10	520 14 10	520 14 10	520 14 10	520 14 10	520 14 10	2,452	0 4 4	
18	Cuddalore	210 15 5	326 5 3	326 5 3	326 5 3	326 5 3	326 5 3	326 5 3	326 5 3	666	0 4 4	
19	Cuddalore	89 7 9	268 1 3	268 1 3	268 1 3	268 1 3	268 1 3	268 1 3	268 1 3	1,257	0 4 4	
20	Dindigul	200 12 11	491 0 9	491 0 9	491 0 9	491 0 9	491 0 9	491 0 9	491 0 9	2,876	0 4 4	
21	Ellore	24 1 6	220 1 6	220 1 6	220 1 6	220 1 6	220 1 6	220 1 6	220 1 6	967	0 4 4	
22	Erode	156 3 6	221 9 1	221 9 1	221 9 1	221 9 1	221 9 1	221 9 1	221 9 1	1,382	0 4 4	
23	Indiavittam	71 2 9	370 2 9	370 2 9	370 2 9	370 2 9	370 2 9	370 2 9	370 2 9	1,382	0 4 4	
24	Quelga	63 8 11	232 8 11	232 8 11	232 8 11	232 8 11	232 8 11	232 8 11	232 8 11	323	0 4 4	
25	Karur	9 8 6	41 3 6	41 3 6	41 3 6	41 3 6	41 3 6	41 3 6	41 3 6	110	0 4 4	
26	Kodalkanal	71 7 0	356 3 0	356 3 0	356 3 0	356 3 0	356 3 0	356 3 0	356 3 0	1,835	0 4 4	
27	Kumbakonam	3,971 25 10	12,543 2 10	12,543 2 10	12,543 2 10	12,543 2 10	12,543 2 10	12,543 2 10	12,543 2 10	1,107	0 4 4	
28	Kurural	572 13 8	1,081 2 7	1,081 2 7	1,081 2 7	1,081 2 7	1,081 2 7	1,081 2 7	1,081 2 7	42,334	0 4 4	
29	Madurai	30 9 10	211 4 10	211 4 10	211 4 10	211 4 10	211 4 10	211 4 10	211 4 10	6,638	0 4 4	
30	Madurai	...	...	...	...	...	...	...	...	845	0 4 4	
31	Manjeri	...	...	...	...	...	...	...	...	...	...	...

APPENDIX.

VACCINATION RETURNS.

Municipalities—cont.	Number—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.	Zamindari.			
32	Bellary	240 0 0	3,971 25 10	3,971 25 10	3,971 25 10	3,971 25 10	3,971 25 10	3,971 25 10	3,971 25 10	3,971 25 10	1,107	0 4 4
33	Bellary	0 11 0	211 4 10	211 4 10	211 4 10	211 4 10	211 4 10	211 4 10	211 4 10	211 4 10	6,638	0 4 4
34	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
35	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
36	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
37	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
38	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
39	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
40	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
41	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
42	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
43	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
44	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
45	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
46	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
47	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
48	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
49	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
50	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
51	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
52	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
53	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
54	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
55	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
56	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
57	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
58	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
59	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
60	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
61	Bellary	...	...	...	...	...	...	...	...	...	845	0 4 4
Total of Municipalities		245 13 0	10,805 5 7	34,562 2 4	34,562 2 4	34,562 2 4	34,562 2 4	34,562 2 4	34,562 2 4	34,562 2 4	148,431	0 3 10
Bellary		...	...	...	...	...	...	...	...	...	386 0 0	0 4 7
Secunderabad		180 0 0	426 5 5	2,053 2 0	2,053 2 0	2,053 2 0	2,053 2 0	2,053 2 0	2,053 2 0	2,053 2 0	6,129	0 5 5
Total		180 0 0	426 5 5	2,389 2 0	2,389 2 0	2,389 2 0	2,389 2 0	2,389 2 0	2,389 2 0	2,389 2 0	6,949	0 6 0
Grand Total		36,746 10 7	71,618 2 10	204,418 10 8	204,418 10 8	204,418 10 8	204,418 10 8	204,418 10 8	204,418 10 8	204,418 10 8	1,288,563	0 3 8

* In finding out the average cost of each successful case, excluding the number of successful vaccinations (10,769) performed in the Naval and Mauritius Emigration depots and Penitentiary, the amount realized by sale of lymph, viz., Rs. 1,846-8-0, has been deducted from the total cost.

† Paid from Abkari Funds.

STATEMENT No. III showing *Dispensary Vaccination in the Madras Presidency during the official year 1905-1906.*

Districts.	Number of dispensaries in each district to which a vaccinatory 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 attending unknown.		Percentage of unknown cases to total cases.		
					Total.	Successful.			Total.	Successful.	Unknown.	Primary and secondary vaccination.	Re-vaccination.	Primary and secondary vaccination.	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	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bukkipetnam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dharmavaram	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gooty	..	..	..	21	..	9	6	3	..	13	4	8	100-0	100-0	..	66-6
Hindapur	..	..	..	5	..	5	4	1	..	..	..	..	100-0	..	..	..
Kalyandrug	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madakasira	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pamidy	..	..	..	10	..	10	1	6	..	..	..	..	100-0	..	..	..
Penukonda	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tadpetri	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Uravakonda	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yadiky	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	..	..	37	..	25	11	11	25	..	19	4	8	100-0	100-0	..	66-6
Bellary District.																
Adoni	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Alur	..	..	..	30	..	..	..	..	..	30	27	..	..	85-0	..	..
Bellary	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brucepettah	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cowl Basar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hospet	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hadagally	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Harpanahalli	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kudligi	..	..	..	11	..	..	..	..	..	11	9	1	..	90-0	..	9-0
Kosgi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kumpli	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rayadrug	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sirugappa	..	..	..	12	..	13	6	5	..	..	..	..	21-6	..	..	..
Vemmagalur	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	..	..	43	..	12	6	5	11	..	31	28	1	91-6	88-6	..	9-4
Chingleput District.																
Chingleput	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Conjeevaram	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Branch Dispensary, Conjeevaram.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cheyar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madurantakam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nagalapuram	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ponnéri	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poonamallee	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pulicat	..	..	..	19	..	18	8	6	..	1	1	..	88-8	100-0	..	..
Saidapet	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sathiravedu	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sembiyam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sriperumbddūr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tiruppurūr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tiruvallūr	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tiruvottiyar	..	..	..	23	..	1	1	..	..	23	17	..	100-0	77-2	..	..
Uttaramar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Waiyahed	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	..	..	43	..	19	9	6	17	..	23	18	..	88-4	78-2	..	..
Coimbatore District.																
Aravakuruchi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bhavani	..	..	..	4	..	4	1	..	..	..	..	..	25-0	..	..	..
Coimbatore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gopichettipalayam	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

B—DISPENSARY VACCINATION.

STATEMENT No. III showing *Dispensary Vaccination in the Madras Presidency during the official year 1905-1906—continued.*

[illegible]

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1905-1906—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.				Primary and secondary vaccinations.			
						Under 1 year.	Over 1 and under 6 years.	Total of all ages.	Unknown.	Total.	Successful.		Unknown.	Re-vaccination.		
						7	8	9	10	11	12		13	14	15	16
Gadag District—cont.																
Cocanada Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dowlaiswaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gothavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kothapeta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Koonavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mumidivaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mandapeta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peddapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pithapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Polavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ramachendrapuram	...	...	20	...	20	...	13	7	...	...	...	100.0	...	35.0	...	...
Rozole	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuni	...	...	2	...	...	...	...	...	...	2	2	...	100.0	...	...	...
Total	...	...	22	...	20	...	13	7	2	2	...	100.0	100.0	35.0	...	...
Kistna District.																
Avanigadda	...	...	39	...	39	8	28	39	...	...	...	97.4	...	...	...	...
Bhimavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Berwada	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chintalapudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ellore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gudivada	...	...	15	...	15	1	11	14	...	...	...	94.6	...	...	...	...
Jaggayapet	...	...	11	...	11	2	5	7	...	...	...	63.6	...	...	...	...
Kyralur	...	...	110	...	107	14	15	43	40	3	1	64.1	33.3	37.3	...	...
Kovara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mylavaram	...	...	8	...	8	4	3	7	...	...	...	87.5	...	...	...	...
Masulipatam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Masulipatam, Women and Children Dispensary.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nandigama	...	...	9	...	9	...	8	8	...	...	...	88.8	...	...	...	...
Narasapur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nidadavole	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nuxvid	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pentapadu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pothavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tanuku	...	...	8	...	2	...	2	...	6	4	...	100.0	66.6	...	...	...
Tiruvur	...	...	30	...	30	2	4	16	5	...	...	64.0	...	16.6	...	...
Ashante	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	230	...	221	31	72	135	45	9	5	78.7	55.5	20.3	...	...
Guntur District.																
Adilakur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhikshu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chidambaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dachampalle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guntur, Municipal Hospital.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guntur, Municipal Branch Dispensary.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kottapalem	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Machilipatnam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Narasapur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Onjala	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pipili	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1905-1906—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	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tenali	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vinukonda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kurnool District.																	
Allagadda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atmakur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cumbum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dhone	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Giddalore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalava	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kodamur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Koilkantla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kurnool	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Markapur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madikora	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nandyal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nandikotkur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Owk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pattikonda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras Town.																	
Georgetown, North Side.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospital for Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Native Infirmary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Triplian Dispensary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madura District.																	
Andipati	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Aruppacotta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bodunayakkandur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Butlagundu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chattrapatti	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Davakottai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dindigul	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dindigul, Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kamudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Karikkudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kilakur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kannivadi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madura	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madura Branch Dispensary.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madura, Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mansamadurai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Melur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mudukulattur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nilakkottai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nattam	...	...	...	12	...	7	...	3	7	...	5	5	...	100.0	100.0	...	...
Palai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1905-1906—continued.

year 1905-1906.—continued.															
Districts.	Number of dispensaries in each district to which a vaccinators is attached.	Average number of vaccinators attached to the dispensaries during the year.	Total number of persons vaccinated.	Average number of persons vaccinated by each vaccinators.	Primary and secondary vaccinations.					Re-vaccination.		Percentage of successful cases excluding unknown.		Percentage of unknown cases to total cases.	
					Total.	Successful.			Total.	Unknown.	Successful.	Unknown.	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
Tanjore District—cont.															
Velangyan	...	...	6	...	6	...	1	2	...	...	...	...	...	...	...
Vallam	...	...	11	...	5	...	1	5	...	...	...	...	33.3	100	...
Total	...	...	372	...	285	...	21	121	231	...	87	62	81.9	71.2	...
Tinnevely District.															
Ambasamudram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Christiansburg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ettayapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Idiyangudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kulasekarapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mengusapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nagalapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nanganeri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nazareth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Onnappidaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palamcottah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palagody	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rathapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sankaranayalarkudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sattur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sawyerapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sermakudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sivaguri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sriraikuntam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Srivilliputhur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tenkasi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tinnevely	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tirukarangudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tiruchendur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuticorin	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female Dispensary, Vannarpet.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vinayakapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vinayapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trichinopoly District.															
Arivalur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brugalore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thappur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jeyankondasolepuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kattappattur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalitalai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lalgudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manappuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Masur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Orjor Jubilee Dispensary.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pernambalur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Srirangam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trichinopoly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Turaiyur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvankurichi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1905-1906—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
Vizagapatam District.																
Anakapalle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bimlipatam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bobbili	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. Gosha Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chipurupalle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chodavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gajapatnagarum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jami	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kurapam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nakkapilli	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Narasapatnam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palkonda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Parvatipuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pondur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Razam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Salur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Srungavarapukota	...	...	3	...	2	...	...	3	...	...	...	...	100.0	...	...	...
Veeraghattam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizagapatam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizagapatam Female Hospital.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizianagram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Maha-raja's Hospital.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizianagram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Waltair	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellamanchili	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malkangiri	...	...	3	...	...	...	...	...	...	3	3	...	...	100.0	...	...
Total	...	...	6	...	3	...	...	3	...	3	3	...	100.0	100.0	...	...
Grand Total	...	...	2,100	...	1,304	271	445	1,024	102	796	491	175	85.2	79.0	7.6	22.0

B—DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1905-1906---continued.

[illegible]

B---DISPENSARY VACCINATION.

STATEMENT No. III showing Dispensary Vaccination in the Madras Presidency during the official year 1905-1906—continued.

year 1905-1906—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.	
						Under 1 year.	Over 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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
South Canara District.																
— cont.																
Hebra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hosdreg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Karkai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kasaragod	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kundapur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mangalore Women and Children.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mangalore Hospital.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manjeswar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moolki	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madabidri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puttur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shenkaranur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sullia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Udipi	...	...	...	8	...	...	...	...	...	3	...	3	...	...	...	100.0
Uppanangady	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	3	...	...	...	...	...	...	3	...	3	...	...	...	100.0
Tanjore District.																
Arantangi	...	...	20	...	20	1	10	11	...	...	...	...	55.0	...	...	...
Adirampattanam	...	...	24	...	24	2	6	11	...	...	...	...	45.8	...	...	...
Aumanichattram Dispensary.	...	...	7	...	7	...	7	7	...	...	...	...	100.0	...	...	...
Avadavarkoil	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ayyampettai	...	...	11	...	11	...	6	11	...	...	...	...	100.0	...	...	...
Enangudy	...	...	2	...	2	...	1	2	...	...	...	...	100.0	...	...	...
Gandamkottai	...	...	6	...	6	1	2	5	...	...	...	...	83.3	...	...	...
Karathattangudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kivalur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kodavai	...	...	33	...	19	6	7	19	...	11	12	...	100.0	85.7	...	...
Kumbakonam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kumbakonam Branch	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kuttanallur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manamakkudi	...	...	24	...	24	...	3	24	...	...	...	...	100.0	...	...	...
Manambachavady	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manampakkudi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mannar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mannar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mimissal	...	...	24	...	17	...	8	14	...	7	4	...	82.3	57.1	...	...
Muttupet	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nagore	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Narandla	...	...	29	...	11	1	...	11	...	18	8	...	100.0	44.4	...	...
Negapatam	...	...	8	...	...	...	...	...	...	8	8	...	100.0	...	...	...
Nidamangalam	...	...	15	...	15	2	11	14	...	...	...	...	93.3	...	...	...
Ordnance	...	...	18	...	10	...	4	6	...	8	3	...	60.0	...	37.5	...
Papanasani	...	...	3	...	3	...	3	3	...	...	...	...	100.0	...	...	...
Pattakkottai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Porayar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajah Mnasidas Hospital.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shivalli	...	...	32	...	32	...	...	26	...	...	...	...	81.2	...	...	...
Tirukkattappalli	...	...	19	...	19	1	12	13	...	...	...	...	68.4	...	...	...
Tiruppondy	...	...	...	...	...	...	...	...	...	20	20	...	100.0	100.0	...	...
Tiruvaiyappudi	...	...	21	...	20	3	12	16	...	...	...	...	80.0	...	...	...
Tiruvaimarudur	...	...	20	...	8	...	6	8	...	...	...	...	100.0	...	...	...
Tiruvadi	...	...	8	...	8	...	3	3	...	...	...	...	100.0	...	...	...
Tiruvallur	...	...	...	...	...	...	...	...	...	...	...	...	82.3	...	...	...
Tranquebar Branch.	...	...	17	...	17	...	14	14	...	...	...	...	...	...	...	...
Vadugachery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vakkolam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

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.

Establishment.	Persons primarily vaccinated									
	Total number.	Number vaccinated.	Total number.	Number vaccinated.	Total number.	Number vaccinated.	Total number.	Number vaccinated.	Total number.	Number vaccinated.
	1894-97.	1897-98.	1898-99.	1899-1900.	1900-1901.	1901-1902.	1902-1903.	1903-1904.	1904-1905.	1905-1906.
Government vaccinators ...	21,081	17,311	30,894	25,698	35,930	28,537	33,478	28,097	32,579	26,911
Local Fund do.	1,031,618	987,372	1,021,050	915,045	973,875	757,488	984,539	833,403	1,013,345	902,880
Cantonment do.	4,194	3,628	4,049	3,840	4,750	4,416	5,104	4,824	5,801	5,427
Zamindari do.	7,405	6,405	10,128	9,363	10,833	9,124	8,997	6,798	9,631	8,546
Municipal do.	101,276	98,359	108,321	102,062	94,291	90,640	100,777	95,586	105,258	99,284
Dispensaries ...	18,004	10,867	12,046	9,754	11,002	9,820	10,319	9,019	10,271	8,952
Medical subordinates ...	1,086	1,088	1,935	1,511	4,172	3,239	3,747	2,865	4,431	3,290
Total ...	1,771,181,012	1,602,460	1,189,146	1,067,319	1,066,804	1,066,821	1,066,821	1,066,821	1,066,821	1,066,821

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

STATEMENT No. V showing particulars of Vaccination verified by Inspecting Officers during 1905-1906.

Districts.	Total number inspected.		Percentage of inspection to total number vaccinated.				Percentage of cases found successful to total number inspected.				Percentage of success as reported by Vaccinators.	
	By Civil Surgeons.		By Native Superintendents or other Inspecting Officers.		By Civil Surgeons.		By Native Superintendents or other Inspecting Officers.		By Civil Surgeons.		By Native Superintendents or other Inspecting Officers.	
	Primary and second-ary vaccinations.	Re-vaccination.	Primary and second-ary vaccinations.	Re-vaccination.	Primary and second-ary vaccinations.	Re-vaccination.	Primary and second-ary vaccinations.	Re-vaccination.	Primary and second-ary vaccinations.	Re-vaccination.	Primary and second-ary vaccinations.	Re-vaccination.
Anantapur ...	81,136	965	792	45	16,648	238	534	267	979	467	919	908
Bellary ...	34,856	2,716	187	103	16,562	94	473	34	978	349	926	978
Chingleput ...	43,083	5,704	318	346	25,317	1,126	574	197	996	713	962	965
Coimbatore ...	67,724	4,612	2,317	1,107	26,143	253	386	55	949	588	846	334
Cuddalore ...	41,597	886	937	131	27,905	147	672	166	975	778	872	483
Ganjum ...	72,873	3,330	880	468	53,887	1,316	739	365	981	888	890	747
Golkere ...	53,488	6,056	2,953	581	41,587	471	749	777	925	671	744	212
Guntur ...	53,216	877	1,510	267	48,031	252	302	257	971	677	844	686
Kistna ...	81,084	1,853	183	54	48,857	233	608	158	956	815	861	269
Kurnool ...	31,555	1,755	157	...	20,834	899	660	398	1000	...	...	...
Madras ...	25,377	28,049	...	...	18,843	3,317	742	118	909	477	946	838
Madras ...	109,758	5,307	5,905	779	52,083	736	474	136	946	477	946	838
Melkote ...	120,293	6,739	3,234	1,250	41,268	698	343	103	999	772	976	339
Nellore ...	42,069	2,649	1,427	800	31,875	386	758	145	918	713	851	680
Nilgiris ...	5,004	800	100	25	2,894	84	378	93	940	898	702	680
North Arcot ...	46,863	4,670	809	236	36,146	619	797	111	950	758	939	655
Salern ...	71,048	6,669	1,382	1,110	50,803	1,382	560	207	982	682	907	716
South Arcot ...	69,889	2,185	2,005	400	38,719	66	554	30	945	717	983	591
South Canara ...	37,984	2,043	2,042	245	20,940	359	562	175	979	832	942	496
Tanjore ...	79,406	8,557	3,162	829	44,923	2,601	565	292	987	832	942	779
Tinnevely ...	73,883	2,231	1,790	747	52,571	2,601	710	154	989	842	941	863
Trichinopoly ...	60,263	2,188	5,293	737	33,104	308	551	140	970	824	867	425
Vizagapatnam ...	97,053	8,812	336	7	53,814	985	554	258	958	1000	854	969
Total ...	*1,352,704	*104,883	41,796	10,477	868,740	16,484	584	157	964	735	881	724
												927

* Excludes cases performed in the 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., Mad., dated 31st May 1900.)

Municipalities.	Number of births available for vaccination during the year 1905.	Number of deaths amongst children under one year during the year 1905.	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 1906.	Date of extension of compulsory vaccination to Municipalities.
Adair	1,062	240	790	320	1st Dec. 1886.
Anantapur	1,061	25	136	91	1st Jan. 1891.
Anakapalle	722	84	638	115	1st Nov. 1891.
Bellary	1,609	281	1,328	663	1st Jan. 1891.
Berhanpur	985	183	802	441	15th April 1891.
Bezwaia	1,100	320	870	675	1st May 1892.
Bimlipatam	965	41	924	231	1st Jan. 1891.
Calicut	3,491	613	2,878	1,891	1st Oct. 1891.
Cannanore	1,135	227	908	683	1st Jan. 1891.
Chicacole	611	91	520	396	1st Dec. 1890.
Chidambaram	696	106	590	372	1st July 1887.
Chingleput	538	136	402	250	1st April 1897.
Cochin	832	214	621	541	1st Jan. 1894.
Cocanada	1,928	295	1,633	939	1st June 1890.
Coimbatore	1,921	362	1,559	1,212	1st Jan. 1889.
Conjeevaram	1,739	339	1,400	952	1st Jan. 1891.
Coonoor	340	33	307	142	1st April 1897.
Cuddalore	2,185	491	1,694	1,012	1st Aug. 1890.
Cuddapah	661	164	567	381	15th July 1888.
Dindigul	1,290	335	964	680	16th July 1888.
Ellore	1,399	373	1,014	953	1st June 1886.
Erode	414	90	324	213	1st April 1888.
Godiyattam	831	132	692	349	1st June 1891.
Guntur	1,191	312	1,119	823	1st Jan. 1889.
Karur	583	120	463	240	1st Sept. 1893.
Kodakur	94	13	81	43	1st April 1900.
Kumbakonam	2,113	489	1,624	953	1st Aug. 1889.
Kurnool	1,963	218	1,745	607	1st July 1889.
Madura	4,236	988	3,248	2,360	1st Jan. 1891.
Mannargudi	630	128	502	330	1st Dec. 1890.
Mangalore	1,208	220	988	697	1st Sept. 1891.
Masulipatam	1,410	238	1,172	761	1st May 1898.
Mavayaram	875	163	693	419	1st Oct. 1886.
Nandyal	1,107	117	990	310	1st Jan. 1900.
Nagapattam	1,821	318	1,503	1,215	1st July 1886.
Nellore	1,632	198	1,434	408	1st Aug. 1886.
Ongole	591	110	481	250	1st Dec. 1885.
Ootacamund	717	93	624	469	1st July 1887.
Palamcottah	1,818	462	1,356	1,118	1st May 1886.
Palghat	1,667	419	1,248	948	1st Jan. 1888.
Parakkimedi	698	139	559	467	1st Dec. 1891.
Periyakulam	860	188	672	288	1st Feb. 1891.
Palni	620	146	474	283	1st Dec. 1891.
Rajahmundry	1,534	356	1,178	1,001	1st Jan. 1891.
Salem	2,896	611	2,285	1,601	1st Mar. 1891.
Srirangam	758	130	628	294	1st July 1886.
Srivillipattur	1,170	185	985	846	1st Jan. 1896.
Tanjore	2,573	493	2,080	1,147	1st July 1893.
Tellicherry	1,188	249	948	823	15th Jan. 1892.
Tinnevely	1,665	415	1,250	897	1st July 1886.
Trichinopoly	3,446	627	2,819	1,979	1st Aug. 1890.
Tirupattur	617	119	498	264	1st April 1891.
Tirupati	494	87	407	270	1st Mar. 1890.
Travancore	612	91	521	368	15th Dec. 1897.
Tuticorin	1,015	236	780	619	1st May 1892.
Vaniyambadi	700	97	603	609	1st May 1894.
Vellore	1,687	340	1,347	664	1st Jan. 1887.
Vizagapatam	1,449	305	1,144	793	1st Aug. 1890.
Vizianagaram	1,333	238	1,095	640	1st Jan. 1891.
Walajpet	894	78	816	218	20th June 1892.
Total	72,837	14,801	58,036	40,099	

STATEMENT No. VII showing Inspection Work done by Deputy Inspectors during the year 1905-1906.

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 deputy inspectors.	Proportion per cent. of inspection to total number vaccinated.	
	First grade deputy inspectors.	Second grade deputy inspectors.	Third grade deputy inspectors.	First and second grade deputy inspectors.	Third grade deputy inspectors.			First and second grade deputy inspectors.	Third grade deputy inspectors.					
Anantapur	1			365		18,871	258	8,854		8,854	8,044	90.8	46.9	
Penukonda			1	391		12,803	273		8,052	8,052	7,494	93.0		62.8
Bellary	1			420		20,413	293	8,498		8,498	7,579	89.2	41.6	
Harpanahalli			1		528	11,325	333		8,158	8,158	7,850	96.2		72.0
Chingleput	1			659		25,005	271	14,073		14,073	13,511	96.0	56.2	
Saidapet	1			421		21,639	203	12,270		12,270	11,849	96.5	56.7	
North Coimbatore			1		682	18,916	241	9,990		9,990	9,167	91.7	52.8	
South Coimbatore			1	373		17,908	242		11,740	11,740	10,271	87.5		49.0
East Coimbatore.	1			269		20,884	247	14,666		14,666	11,253	76.7		40.0
Ouddapah	1			268		11,825	244	8,554		8,554	6,879	80.6		72.3
Madanapalle	1			1,617		20,337	269	12,551		12,551	11,890	94.8		61.7
Siddhavattam		1		718		9,219	249	6,950		6,950	5,647	81.2		75.3
Chatrapur	1			545		22,047	196	14,082		14,082	12,967	92.0		63.8
Chicacole	1			552		17,282	315	12,606		12,606	11,081	87.9		72.9
Ganjām Hill Tracts	1			721		15,544	237	12,942		12,942	11,681	90.2		83.2
Russellkonda			1	789		17,274	243		15,453	15,453	13,642	88.3		89.4
Cocanada			1	505		31,761	259		22,606	22,606	16,585	73.3		71.1
Rajahmundry		1		340		17,256	215	15,018		15,018	11,281	75.1		87.0
Local Fund Vaccinators in Agency.			1	325		3,652	194		4,434	4,434	3,210	72.4		121.4
Ellore Circle	1			507		33,946	246	20,965		20,965	15,520	74.0		61.7
Masulipatam	1			523		43,348	259	29,155		29,155	17,507	60.0		67.3
Guntur	1			506		27,924	277	28,921		28,921	25,502	88.1		103.5
Narasaraopet			1	568		24,143	237		19,362	19,362	15,210	78.5		80.1
Bapatla			1											
Cumbum		1		280		13,700	305	8,737		8,737	7,713	88.2		63.7
Kurnool	1			412		17,430	265	12,796		12,976	10,785	84.2		73.4
Madras	1		4			53,426	287	3,006	19,164	22,170	21,619	97.5		61.3
Dindigul			1	170		25,269	238		15,370	15,370	13,990	91.0		60.8
Madura		1		539		26,750	230	12,048		12,948	11,411	94.7		45.0
Paramagudi			1	314		28,849	218	11,618		11,618	11,162	96.1		40.2
Tirumangalam			1	320		22,888	272		13,773	13,773	13,197	95.8		60.1
Tellicherry	1			159		30,232	242	12,720		12,720	12,357	97.1		42.0
Calicut			1	125		41,449	261		13,475	13,475	12,966	96.6		32.5
Palghat			1	171		36,860	245		15,769	15,769	15,293	96.4		42.7
Central (Nellore).			1	203		13,445	240		10,288	10,288	9,208	89.5		76.6
Southern (Nellore)			1	500		16,457	282		10,973	10,973	9,511	86.6		66.6
Northern (Nellore)	1			423		11,834	250	11,002		11,002	8,661	78.7		92.9
Nilgiris			1	334		3,811	258		2,978	2,978	2,949	99.0		78.1
Chittoor	1			883		16,829	271	13,939		13,939	12,936	92.2		82.8
Vellore	1			493		16,357	279	10,168		10,168	9,397	92.4		62.0
Karvetnagar			1	577		13,024	280	12,560		12,560	11,961	95.2		96.4
Northern (Salem).			1	398		16,459	196		9,379	9,379	8,850	94.3		56.9
Salem Circle (Central)			1	749		27,123	264	17,684		17,684	15,926	90.0		65.1
Nannakkal			1	280		27,548	219		14,122	14,122	12,327	87.2		51.2
Cuddalore	1			285		31,802	202	15,760		15,760	13,681	86.8		50.3
Vridhachalam			1	474		15,888	237		11,742	11,742	10,178	86.6		76.3
Tiruvannamalai.			1	316		20,314	241		11,283	11,283	10,396	92.1		55.6
Northern (South Canara)	1			289		21,567	261	12,228		12,228	11,234	91.8		56.6
Kasaragod			1	170		15,519	271		9,080	9,080	7,559	83.2		58.5
Tanjore		1		458		26,469	280	16,735		16,735	15,214	90.9		63.2
Nagapatam			1	416		28,186	282		14,687	14,687	14,124	96.1		52.1
Pattukkottai			1	508		20,401	290		16,002	16,002	14,958	93.4		78.4
Srivillipattur			1	347		21,424	255		14,861	14,861	12,544	87.3		67.0
Sermadévi			1	535		22,417	282		18,275	18,275	18,186	99.5		81.5
Tinnevely	1			348		25,499	287	20,280		20,280	19,082	94.1		79.5
Trichinopoly	1			319		30,188	233	19,040		19,040	16,594	87.2		63.0
Ariyalur			1	519		21,398	272		14,462	14,462	12,320	85.1		67.5
Gonapur			1	417		9,687	210		8,034	8,034	7,569	94.2		83.1
Jeyppore	1			843		20,391	358	9,324		9,324	7,513	80.6		45.6
Vizagapatam		1		240		27,002	252		17,923	17,923	14,712	82.0		66.3
Visanagaram	1			307		37,545	246	19,518		19,518	17,062	87.4		51.9
Total	26	7	539	16,182	10,499	1,326,737	255	456,728	368,505	820,233	720,689	87.8	61.7	64.0

6. The limited amount of glycerinated paste issued has not, under the conditions of transit, etc., given so good results as the lanolated paste.

7. The success rate of the year, as shown by returns to the Institute, has been higher than in the previous year reaching 92.8 per cent. as against 91.21 per cent. last year. It varied during the different months from 85 per cent. to 97 per cent., the worst returns being received from May to August inclusive. In January the success rate of 104,871 cases from all parts of the Presidency was 97 per cent. The success rates in different districts varied from 84 per cent. to 99.8 per cent. The lowest returns were received from Gódvári, Coimbatore and Vizagapatam—*vide* Statements C, D and E.

Out of 105,667 cases supplied to Malabar 99.3 per cent. were successful.

8. The maintaining of the records from which these figures are obtained, and correspondence entailed, has been an important and heavy item in the work of the office. It is, however, very necessary for it not only enables the quality of the vaccine to be watched, but it tends very largely to check certain faults of the vaccinators, which tell unfairly against the quality of vaccine issued. One of the most prevalent of these faults is the custom of keeping paste over till it suits the convenience of the vaccinators to use it. This delay in the use of the paste has been systematically fought against by insisting, by every possible means, on prompt submission of returns. Paste returned for any reason by vaccinators has been in every case tested upon a calf, and in spite of having performed a double journey it has in most cases given very good results—*vide* Statement F.

9. Where paste has been returned by vaccinators without sufficient cause, the Local Body concerned has always been notified of the circumstance.

10. The number of calves utilised has been 3,501, or an average of 292 per month. The supply of calves, which had last year, and in the beginning of the present year, caused much anxiety, has latterly much improved, contractors having made better arrangements for their purchase. A better quality of calf has also been supplied. The sale of done calves, on the other hand, has become increasingly more difficult, necessitating the trainage of many of these to distant parts for sale.

11. In March 1906 Assistant Surgeon H. C. Jackson took up the duties of Deputy Superintendent. The effect of his zeal and ability has added greatly to the success of the latter months of the year.

THE BACTERIOLOGICAL SECTION.

12. The number of specimens received for report during the year has been 781, as compared with 600 during 1904-1905.

The increased extent to which the Presidency has availed itself of the laboratory is in reality greater than these figures would suggest, since plague specimens from Madras City, which last year numbered over 100, are now examined in the Municipal laboratory by the Special Plague staff.

The specimens received were—314 specimens for report as to the presence or absence of the plague bacillus, of which 26 were from suspected buboes, 54 of blood, 15 of smears of liver or spleen in fatal cases, 29 of sputa of suspected pneumonic plague, and 190 of smears or other material from suspected plague rats; 163 specimens for report as to the presence or absence of the malarial parasite; 29 specimens for the detection of the tubercle bacillus, several of which in important cases were tested by the inoculation of the suspected material into guinea pigs; 39 specimens of blood for Widal's reaction; 15 specimens from suspected cholera cases and 10 of dogs suspected to be rabid. In most of the latter cases, in addition to a *post mortem* examination of the dog, a rabbit was inoculated with material from the brain. Tumours and other pathological tissues for sectioning and report numbered 74. In the case of tumours, a mounted section has in each case been forwarded to the officer who sent the specimen. Other material of a miscellaneous nature has included specimens of blood for differential counts of the leucocytes, or the detection of the Leishman-Donovan Body or other protozoal parasites, specimens of pus for examination for the tetanus bacillus, gonococci, or other organisms, specimens of mosquitoes, ticks, and worms, for identification and others.

In connection with plague specimens printed slips, giving directions regarding the interpretation of results, have latterly been forwarded with every report recording absence of the plague bacillus.

13. Stains and materials necessary for diagnosis or research have, as hitherto, been supplied to officers asking for them, the actual expenses of materials being recovered. Sterile apparatus, consisting of petri dishes, agar tubes, and pipettes, has been sent to several officers. A large number of special sterile bottles for the collection of water samples have also been prepared and sent out.

14. With the increased efficiency of the laboratory staff, it has been possible to examine much more systematically and thoroughly samples of water sent in. During the year, 69 samples of water, from various sources, have been examined and reported upon. The examination in each case has consisted in a microscopical scrutiny of the total sediment obtained by filtration through sand (Rideal-Walker method), the enumeration of organisms per c.c., the quantitative estimation of *bacillus coli communis*, and the testing for *bacillus sporogenes enteritidis* by the milk test performed upon 100 c.c. of the sample. The method of performing the sporogenes test has been to use four large test tubes, each taking, in addition to the milk, 25 c.c. of the sample. These are heated to 80° c. for twenty minutes in a large model of Balfour Stewart's apparatus, and incubated anaerobically in a Bullock's apparatus. The absence of *b. sporogenes enteritidis* in 100 c.c. of the sample has been taken as evidence of freedom from pollution, and this decision has always been upheld by the microscopic examination of the sediment, and the estimation of *b. coli communis*. The significance of the presence of *b. sporogenes enteritidis* is less obvious. At present too little is known of the bacteriological conditions of Indian waters to enable one to estimate the value of this test when positive.

In order to ensure absolute sterility of the bottle used for collection, special sterile bottles are now prepared, and sent to officers who may require to send samples for bacteriological examination. A circular has also been issued through the Sanitary Commissioner requesting that certain procedure be adopted when sending samples for examination.

In connection with the Sanitary Engineer to Government, a series of special examinations has been undertaken on representative samples from the water-supply systems of a number of Presidency towns. It is intended, eventually, to examine bacteriologically all the chief water-supplies in the Presidency. Up to the present the water-supplies of five towns, namely, Madura, Conjeeveram, Dindigul, Trichinopoly and Tanjore have been examined and reported upon.

A number of samples of water have been received from Jails and from the Military authorities.

Most of the samples that have been received show the presence of *b. sporogenes enteritidis* and *b. coli communis* in small quantities of water. Such samples one must conclude are polluted, but whether they may not often be, for India, comparatively good water, can be decided only by experience. It is certain that a well, into which buckets and chatties are dipped, will, with the delicate bacteriological tests employed, show pollution, however free such water may be from gross pollution by sewage. To ensure the proper interpretation of results of a bacteriological examination, officers have been requested, in the circular referred to, to state always the nature of the source of water, and the particular points a bacteriological examination is required to determine.

As the delicacy of the bacteriological tests makes them not very suitable for estimating the comparative purity of polluted waters, the examination of the total sediment has been very largely used. This method serves to pick out very clearly cases of gross and dangerous pollution.

15. In connection with plague, farther experiments on rats from Madras and the Nilgiris have been undertaken with Danyz virus freshly obtained from Europe. The experiments have throughout given negative results.

At the request of the Special Plague Officer, Madras, the poisonous dose of Commonsense Rat Exterminator was ascertained for dogs and the result communicated to him.