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ANNUAL STATISTICAL RETURNS

AND

SHORT NOTES ON VACCINA N

IN

BIHAR AND ORISSA

FOR THE YEAR

1915-16

BY

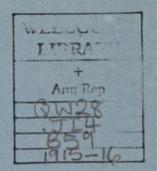




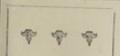
W. C. ROSS, Major, I.M.S.,
Offg. Sanitary Commissioner, Bikar & Orissa.



PRINTED AT THE BIHAR AND ORISSA GOVERNMENT PRESS.
1916.







BIHAR AND ORISSA

BOOK DEPOT.

Gulzarbagh:

PATNA.

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ANNUAL STATISTICAL RETURNS

AND

SHORT NOTES ON VACCINATION

IN

BIHAR AND ORISSA

FOR THE YEAR

1915-16

BY

W. C. ROSS, Major, L.M.S.,
Offg. Sanitary Commissioner, Bihar & Orissa.



PATNA:
PRINTED AT THE BIHAR AND ORISSA GOVERNMENT PRESS.
1916.

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ANNUAL VACCINATION REPORT

BIHAR AND ORISSA.

1915-16.

1. Staff.—Lieutenant-Colonel E. C. Hare, I.M.s., was in charge of the Department from the 1st April to 16th May 1915, and from 26th November 1915 to 2nd February 1916: Dr. S. N. Tiwari from the 17th May to 25th June 1915 and Major W. C. Ross, I.M.s., from the 26th June to 25th November 1915 and again from 3rd February till the end of the year.

The office of Deputy Sanitary Commissioner, Bihar Circle, was held by Dr. S. N. Tiwari throughout the year. The office of Deputy Sanitary Commissioner, Chota Nagpur Circle, and charge of the Vaccine Depôt at Namkum were held by Dr. T. Sebastian throughout the year. The office of Deputy Sanitary Commissioner, Orissa Circle, was held by Dr. B. P. Mazumdar during

the year.

The inspecting staff consisted of 20 District Inspectors of Vaccination and 65 Sub-Inspectors of Vaccination (including 3 deputed for duty at the Vaccine Depôt) in addition to the 3 Sub-Assistant Surgeons combining vaccination inspection with other duties in Angul. During the year 2 additional appointments to the cadre were sanctioned in order to provide Sub-Inspectors for the new Subdivision at Simdega and for the compulsory vaccination area in Patna and these are included in the above statement.

The total number of vaccinators employed in the Province during the year were 990 licensed and 184 paid against 999 licensed and 142 paid in the

previous year.

In municipalities and in the districts of Puri, Sambalpur and part of Singhbhum vaccination was done by paid vaccinators, but otherwise the work throughout the Province was carried out under the licensing system except for the employment of paid vaccinators for short periods to deal with outbreaks of small-pox.

2. Operations performe I.—The total number of operations performed during the year amounted to 1288419 as compared with 1314042 last year. The decrease amounts to 25623 and is in my opinion largely due to the deterioration in discipline and in energy of the inspecting staff.

Of the total number of operations 1255710 were performed by the Vaccination Department as compared with 1295179 last year: 1205202 operations were primary and the remaining 50503 were revaccinations as

against 1242316 primary and 52863 revaccinations last year.

Primary operations and re-vaccinations both fell off during the year by 3/114 and 23/15, respectively. Of the total operations performed (1255710) 1221018 equal to 97.23 per cent. were successful as compared with 1270949 equal to 98.12 per cent. last year. The number of operations performed in municipalities fell by 1687 as compared with last year's returns. The ratios of success in municipalities were 96.66 for primary and 44.50 for revaccination as compared with 99.13 for primary and 55.83 for revaccination in rural areas.

3. Vaccination in Districts.—During the year under report, vaccination has been most successfully carried out in the Patna Division; from all the districts of which an increase is reported in the number of operations performed,

viz., Gaya (9769), Patna (11394) and Shahabad (3498).

The Orissa Division on the other hand shows a very large decrease and the Cuttack district again heads the list with another large drop of 15967 in the number of operations performed. The districts of Balasore (9583) and Sambalpur (3660) both return the decreases noted against them and the districts of Puri and Angul are the only districts in this Division which show some increase of 5228 and 3337, respectively.

The Tirhut Division shows small decreases in all the districts except Champaran which returns a slight increase.

The Bhagalpur Division shows a large decrease in the Purnea district (8769) and small decreases in the Bhagalpur and Monghyr districts and a rise of 4594 in the return from the Santal Parganas.

The Chota Nagpur Division returns show small increases in the districts of Ranchi and Palamau and large decreases in the districts of Manbhum and Singhbhum amounting to 16352 and 6416, respectively. Hazaribagh district shows a small decrease of 1782.

4. Vaccination in towns and compulsory areas.—During the year under report the Vaccination Acts were extended to the area under the jurisdiction of the Jharia Mines Board and to the Patna and Phulwari Thanas of Patna District. Statement VII shows that during the year 25081 children under one year of age out of an available number of 29178 or 85.95 per cent. were successfully vaccinated.

The town of Bhagalpur again shows the smallest proportion of work done and the towns of Darbhanga, Hazaribagh and Chapra have given very unsatisfactory returns.

- 5. Protection of Infants.—Out of 1076026, the estimated number of children under one year available for vaccination, 624193 equal to 580-09 per 1000 were successfully vaccinated as compared with 629670 or 516:21 per 1000 in the previous year. The protection of infants in municipalities is separately shown in Statement VII and works out at a ratio of 859:59 per mille of the surviving infant population. The majority of Civil Surgeons report that there is considerable opposition to the early vaccination of infants and that there is a strong popular prejudice against the operation being performed on children under one year of age. Many Civil Surgeons and the Deputy Sanitary Commissioners also report that opposition to vaccination is chiefly confined to a few castes and sects such as illiterate Brahmins, Marwaris and a few Muhammadan communities, but that generally speaking vaccination is not objected to under normal conditions.
- 6. Incidence and mortality of small-pox.—During the last ten years the total number of deaths from small-pox in the districts of this Province has been 117755 from which it may be inferred that over 600000 cases of the disease occurred in that period,

During the first quinquennium the number of deaths was 83972 and during the second 33783. In the last quinquennium the mortality has risen during the five years as follows:—3088, 2741, 4347, 8979 and 14628.

The provincial ratios of the mortality from small-pox per 1,000 of population during the last five years have been '08, '06, '11, '22 and '42 respectively.

7. Prevention of small-pox.—The constant and considerable mortality noted in the preceding paragraph is in my opinion a complete demonstration both of the insufficiency and of the inefficiency of the existing arrangements for vaccination.

It is well known—in fact it is an admitted axiom—that thorough vaccination can and does stamp out small-pox altogether and in the light of that knowledge and in face of the above facts there is great necessity for a more definite vaccination policy.

The inefficiency of the Department is being severely dealt with and action is being taken against a large number of officers (about 28). The departmental rules and regulations are being strictly enforced and the staff generally has been warned against laziness, neglect of duty and breach of rules. I anticipate that I can establish discipline and efficiency in the cadre within two years and I am confident that a considerable improvement in the returns will ensue.

At the same time I do not consider that small-pox can be effectively dealt with and stamped out unless vaccination is made compulsory throughout the Province and I would recommend that the Vaccination Act should be modified so as to extend the age within which vaccination is required to one year and

generally enforced, that vaccination should be free and that the vaccination staff in all the districts should be put on one consolidated provincial cadre for purposes of administration and work.

8. Inspection of work.—During the year under report the three Deputy Sanitary Commissioners inspected 133,895 primary vaccinations as against 8,781 in the previous year. The figures for the previous year were unusually low as there were only two Deputy Sanitary Commissioners and both of them were employed on special duty which kept them at headquarters during most of the inspecting season. The inspecting work done this year by the Deputy Sanitary Commissioners has been very comprehensive and they have submitted valuable reports on the efficiency of the staff and the arrangements in sixteen of the twenty-one districts in the province. Action has been taken on these reports in each case.

The Civil Surgeons of the Province have inspected during the year 82485 primary and 10265 revaccination operations which results compare favourably with last year's figures of 78646 primary operations and 7162 revaccinations. The inspecting staff of 85 officers inspected 877792 operations during the year. The officers of the inspecting staff generally and with but few exceptions are more or less ignorant of their duties, negligent and careless and have not hitherto attempted to do their work thoroughly and in accordance with the rules. Various orders and circulars have issued during the year but with comparatively little effect. Inspecting officers generally have failed to comply with the rules regarding the keeping of their diaries and especially with the rule requiring an inspection note on the work, capacity and conduct of each vaccinator and subordinate officer whose work they inspected.

A class of instruction will be held at Patna in July at which the entire staff will be required to attend and at which the officers will be instructed in detail in the rules and regulations, the nature and scope of their duties and the standard of efficiency and work expected from them. The class will be instructed by the three Deputy Sanitary Commissioners and I shall inspect it and endeavour to imbue the minds of the officers with some ideas of discipline and efficiency.

9. Supply of Vaccine.—The Vaccine Depôt at Namkum supplied the Province with vaccine throughout the year. 3127290 doses were made during the year and 1798239 doses were issued, chiefly in capillary tubes containing one dose each. A reserve supply of 1559488 doses has been built up, and there is now no fear of any failure in supply from epidemics or other causes.

The staff, the management and the technique of operation, have all been reorganised during the year with excellent results both in efficiency and in economy.

The number of calves required has been greatly reduced by the improvement of the technique in operating whereby more than double the amount of pulp is obtained from each calf, the vaccine has been further diluted after a series of experiments ensuring the safety of the procedure and the out-put of doses per calf has been raised from about 1,500 to over 4,000. There is a corresponding reduction in the cost for calves, fodder, etc., and also the difficulty of obtaining a sufficient number of calves has been obviated.

The number of doses produced has risen from 771696 to 3127290.

The number of doses issued has risen from 541259 to 1798239.

The number of calves required has fallen from about 150 to 180 per month for 12 months to under 100 per month for 9 months and the Depôt will in future remain closed from early in April till the end of June as the vaccine produced in the hot weather is not of good quality and also because a sufficient supply can easily be manufactured in the remaining 9 months of the year.

The number of calves used during the year was 1128 for 3127290 doses as against about 500 calves for 77169; doses during the previous year.

The working cost of the Depôt for the year amounted to Rs. 31,537-3-3 for 3127290 doses against Rs. 19,367-7-9 for 771696 doses in the previous year.

Sales of vaccine, calves, etc., resulted in the receipt of Rs. 4,637-2-3 and Rs. 4,964-9-8 are still owing for vaccine supplied during the year. The average cost per dose fell from 4.8 pies to 2.1 pies or to 1.8 pies if the actual receipts for sales are taken into account. A further reduction in the average cost per dose may be expected next year, but even now it compares most favourably with the cost of production in other Depôts in India.

The services of the Superintendent (on probation) were dispensed with in October 1915, and a new Superintendent, Dr. C. N. Banarji, was appointed in November 1915, who has proved to be a capable and careful officer and has worked very satisfactorily. The arrangements for the supply of calves were a'tered and the supply is now ample and regular from three contractors. Two epidemics of foot and mouth disease broke out during the year, and the Depôt was closed temporarily on both occasions.

The contract for the supervision of the refrigerating plant has been stopped and further economies in the reduction of the staff and the cost of packing are contemplated. During the year the diet of the calves was considerably increased, but the extra cost is more than repaid by the larger and better return of vaccine and by the saving of time in convalescence.

The issue of vaccine direct to vaccinators instead of to Civil Surgeons for redistribution, was begun during the year and will be continued. The primary cost to the Depôt is greater, but the ultimate cost is less and the saving of time is a matter of importance with glycerinated vaccine. I propose to use collapsible tin tubes in place of glass capillary tubes next year and have arranged for a supply. The glass tubes are expensive and trouble some to load, and they break in transit. I also propose to manufacture some lanolinated vaccine next year as an experiment owing to the complaints received that glycerinated vaccine does not stand long hot journeys very well.

The great increase in output and the reorganisation of the entire system of working gave both Dr. Sebastian and Dr. Banarji a large amount of hard work, which was well and carefully done. These officers deserve great credit for the success of their efforts, and I have only to add that the work of the Depôt is now proceeding economically and smoothly and without fear of interruption.

10. Cost of the Department.—The total cost of the Department during the year as detailed in Statement II was Rs. 1,12,336 or Rs. 13,915 in excess of the previous year.

The cost per successful operation was Re. 0-1-5 against Re. 0-1-2 in the previous year, which is due to the increase in establishment viz., :—one Deputy Sanitary Commissioner and his office establishment and two Sub-Inspectors of Vaccination.

11. General.—Better vaccination results may be expected from the present staff under more stringent supervision and more systematic control, but there is a limit to the possibilities in that direction under existing conditions, wherein vaccination is neither free nor compulsory, and the control of the staff and the work restswith Civil Surgeons in the districts.

With reference to the system of administration I am of opinion that it should be single and not dual, and I think that in most districts Civil Surgeons have little or no time to spare from their many and increasing medical responsibilities to accord the necessary time or attention to the detailed and personal supervision of vaccination work, if it is to be properly carried out, I consider that it would be more satisfactory if the Sanitary Department alone were responsible for this work and were strengthened accordingly and given the entire administrative charge of vaccination under revised and improved conditions, extending the Act, making vaccination free to all, and consolidating the establishment in one cadre of paid vaccinators and Inspecting Officers.

In conclusion I desire to bring to the notice of Government the large amount of useful work done by the three Deputy Sanitary Commissioners during the year in inspecting vaccination work and reporting on the efficiency of the staff and work in almost all the districts of the Province.

W. C. ROSS, MAJOR, I.M.S.,
Off g. Sanitary Commissioner.

STATEMENTS.

					214	*emente	10. 1	wing pure			
		District,		Population of district according to the census of 1911.	Average population per square mile.	of vaccinators employed through-	Tota [†] numb	er of persons va	occinatel.	Average reguler of persons vaccinated by each vaccinator,	
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		By paid Vaccinators	***	,		(6	1977	1730	67232 3707	618	66935 3423
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16	Sambalpur	By paid Vaccinators		1023402	409		9 50838	18083	28921	1343	36578
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districts of Bihar and Orissa during the year 1915-16.

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51682	51628	111763	176	19070	0000		1		1			1	-		

Namber,	District.		Population of district according to the cenum of 1911.	Average population per equare mile,	Average number of vaccinators employed through- out the season.	Total at	Female.	as vaccinated,	Average number of persons vaccinated by each varcinates.	Total.
1	,		3	4	5		6		7	
	Chota Nagpur Division. (By paid Vaccinators				. 3	637		1190		
17	Hazaribagh By licensed Vaccinators (By paid Vaccinators	***	1288009	163	1 45	23233	21056	44591	306 1095 599	1164 43945 1657
19	Ranchi Pry licensed Vaccinators (By paid Vaccinators (By paid Vaccinators		3 1387073	195	£ 45	23328 1546	21608	44935 9502	1021	43782 555
20	(By licensed Vaccinators Manbhum Separate Vaccinators		} 687710 } 1547576	139	(20	16011 3762	14179 2925	30190 6687	1161 1061	29599 6737
21	CBy licensed Vaccinators Singhbham Springly Vaccinators		} 691394	178	5 9	27674 4540	22922 3900	50406 8500	1231 944	43415 8321
	(By licensed Vaccinators Political States of Singh- By licensed Vaccinators blum.		145046	246	4	6063 2962	5362 2240	11425 5.11	1039	10900 4851
12	Total of Chota Nagpur { By paid Vaccinators Division,		} 5754008	207	{ 25 170	11450 99173	0227 87276	20077 185449	827	17834 176592
	Total of Vaccine De- By licensed Vaccinators Total of Vaccine De- By licensed Vaccinators Total		34638084	413	{ 181 990 1171	81590 573969 658549	71510 525651 507161	150000 1099020 1255710	962 1110 1072	185359 1069644 1705202
	Total Discensory Department		-		1	307	154	461	1200	265
	Total Eallways				-	867	423	1290		819
	Total Cooly Department		-		-	10029	7421	18350		8654
	Total Jails and Cantonments				2	12007	601	12608	*303	9121
	Grand Total		***	***	1174	682159	605760	1288119	1007	12.7591

^{*} Cantonment only. † Darbhanga district only.

	Primary Va			Res	raccination	100	the rest	of success- in which dis were	1,000 of popu-	Percentage cases to to	of unknown otal cases.	ber of pers fully va during	nonal nom- ons success- accipated previous years.	death small during	e annual ber of s from -pox previous years.
Under one year.	Over one and under six years.	Total of all ages.	Unknown,	Total.	Successful.	Unknown.	Primary.	Revaceination,	Persons successfully vaccinated per 1,009 lation.	Primary.	Heracination.	Number.	Hale per 1,600.	Number,	Rate per 1,000,
0	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
534 22700 1166 35583 245 21133 458 22471 (536 6184 3291 9030 116652	613 15814 472 8148 124 8352 8994 20635 1871 4497 1333	1153 43834 1855 49773 - 515 29724 4639 433:1 8157 10728 4813	3 4 8 16 94 1097 7 7 20 7 1153 140 2781	266 446 141 1154 1947 291 950 7081 279 625 290 8343 9657	13 390 108 931 1130 235 591 4838 88 397 104	7 103 202 16 25 71 104 4 4 5	99/31 99/98 99/97 99/97 99/97 99/97 99/97 99/97 99/97	50°00 87°44 80°59 88'55 64'45 85'45 63°71 00°01 50'28 63'92 75'78	} 35-24 { } 37-36 { } 46-25 { } 34-92 { } 28-11 { 34-75 } 36-30 {	-01 2-88 -91 19:2 -01 -45 -19 -14	4:96 9:92 10:36 6:49 2:43 1:00 37:27 64 1:53	} 46442 } 5'007 } 20834 } 63276 } 29105 5380	36:04 37:27 34:70 40:28 41:91 37:12	31 44 42 150 63	103 100 100 108
\$5000 8 62 \$193	497443 544367	1964086 1193731	2296 5077	29776 50508	16531 27287	8157	99°37 99°48	68°82 64°43	35-67	*21 *62	19:33 16:14	1202258	37:50	4503	*13
131	80	215	70	176	. 25	151	100-00	100'00		24.56	65-79			_	
698	73	771	2	461	293	2	63-2	63:83	-	-24	143		-		***
953	1104	3730	5124	9495	496	7311	100:00	68-46		57-97	76-90		***		
319	183	2220	143	10187	6014	1026	97:41	65-64		5'81	19:07				
636323	545907	1200067	104 5	70828	35315	10047	99-16	64'81	-	'85	23 26		-		

Summary.

						-						-	-
	Total nur persons vi	mber of secinated.	Total 'num operatio perform	ms .	Percent successfu in which th were kn	l cases le results	Average nu persons was by each v tor.	einat ed	children	ber of success- ccinated.			
	Primary.	Revaccination,	Primary.	Revactination.	Primary.	Revaccination.	Vaccinators employed.	Persons vaccinated by each vaccinator.	Under 1 year.	One and under 6 years.	Eatio of success- ful vaccina- tions per 1,090 of popula- tion.	Total cost of Department,	Average cost of each successful case,
1	2	3	4	5	6	7	8	0	10	11	12	13	16
BYISPECIAL STAFF.												Rs. a. p.	Rs. a: p,
Statement (I) BY DISPENSARY STAFF,	1206302	80506	1205202	50008	99-46	64'43	1,171	1,072	624193	544367	1	- 54	64
Statement III BY OTHER AGENCIES.	285	176	295	176	100'000	200-00	1	* 200	131	80	35'67	1,12,338 0 2	015
Bailways, Cooly Depot, Jails and Cantonments.	12104	20144	12104	20,144	68-31	66-09	(a) 2	303	1999	1300	1	2512	HEY
Total	1217591	70928	1217501	70,828	99-46	66.81	1,174	1,007	626323	545507	25-67	1,12,336 0 2	0 1 5

^{*} Darbhanga only. (a) Cantonment only.

STATEMENT II.

-				_		_		_		_			
		1	Rei man										Expen
No.	Circle and district.	European supervising officer.	Pay.	Native supervising officer,	Pay.	Paid vaccinators.	Pay.	Licensed vaccinators.	Pay.	Clerks.	Pay.	Peons, etc.	Pay.
1	2	3	4	5	6	7	8	9	10	11	19	13	14
					Ra. a. p.	1	Rs. a. p.		Rs. s. p.		Rs. a. p.		Es. a, p.
1	PATKA DIVISION,		1	6	1,929 4 0	14	1,002 4 4	60	238 7 6			1	
2	Gaya			1 5	1,825 0 0	12	966 11 10	76	188 2 6				28 6 5
3	Shahabad		***	5	2,009 11 6	17	962 9 10	103	215 13 6				
						-							
	Total of Patna Division		***	16	5,763 15 6	43	2,931 10 0	239	645 7 6		***	1	29 6 5
	TIRRUT DIVISION.			,									
4	Sarat		417	4	1,508 0 0	8	660 0 0	69	226 14 0				
5	Champaran	-	in	3	1,218 6 11	2	273 0 0	50	262 13 0	100	- A	***	
6	Mutaffarpur		***	4	2,854 2 11	6	526 0 0	70	150 5 0		100		***
7	Darbhanga	-		4	1,667 9 3	8	509 5 8	60	86 9 6	1	60 0 0	***	
	Total of Tirhut Division	100		15	6,506 3 0	21	2,018 5 8	258	726 9 6	1	60 0 0		
		-				-						-	
	BHAGALPUR DIVISION.		25.00						- 74 12 6				muca
8	Monghyr	***	***	4	1,515 0 0 2,850 0 0	12	390 0 0 1,012 3 10	41		***	***	2	108 0 0
9 10	Pernea	1111	***	5 4	1,645 3 11	10	939 8 10	49	30 0 0	***	-111	***	10
11	Pornea			7	2,225 13 7	4	343 11 8	62	19 9 0	***	***	***	***
	Canal Angelia							-					
	Total of Bhagalpur Division			20	8,136 O 6	30	2,685 2 4	203	123 12 6			2	108 0 0
	ORISSA DIVISION.	-	-	-				-					
12	Cuttack		***	4	1.484 3 7	11	1,352 9 8	63	***	(900)	-	***	200
13	Balasore		***	3	1,211 15 9	11	537 15 4	42		107		200	
14	Angul			3	2,076 4 8	***	******	15	***		14	941	***
15	Puri		- 840	3	1,283 6 1	29	3,760 2 3	***	***	200	-	***	-
16	Sambalpur		144	3	1,500 0 0	13	1,519 3 7	-200			444	2	42 9 3
	Total of Orissa Division	-	-	16	7,815 14 1	64	7,109 14 10	120		-	***	2	42 9 3
	OHOURA WAGDING DIVISION	-											
17	CHOTA NAGPUR DIVISION,		888	4	1,435 14 1	3	257 11 9	44	200			197	1
18	Ranchi	***	***	5	1,500 15 6	4	564 0 0	44	***		***	***	-
30	Palaman		7000	3	1,153 1 9		225 3 2	26			***		
20	Manbhum		***	3	1,105 0 0	6	428 11 10	41	68 0 0			***	
	Singhbhum			3	1,000 0 0	9	651 2 2	15	-	an .	-		***
	Total of Chota Nagpur Division			18	6,194 15 4	26	2,126 12 11	170	68 0 0	-			440
		-			0.00	-	16,931 13 9	-	1.500.10				
6	Total of vaccine circle			- 85	34,417 0 5	184			1,563 13 6	1	60 0 0	5	178 15 8
	ESTABLISHMENT OF THE DEPUTY SANITARY COMMUNICONER, BIRGER CIRCLE.		***	1	7,200 0 0	-	*	100	***	9	630 11 9	,	302 4 1
	Ditto ORISSA CIRCLE	in	note.	1	4,041 15 0	***			-10	2	971 14 3	2	177 0 0
	Ditto CHOTA NAGPUR	-		1	6,232 8 0		******		***	2	783 11 2	2	211 1 8
	Total		***	3	17,474 7 0	-			-	6	2,080 5 2	7	690 5 9
1	Total of province	-		88	51,691 7 5	184	. 16,931 13 9	990	1,563 /3 6	7	2,749 5 2	12	869 5 5
_								-					

ure							Pa	id from			racci-	cessful
Total pay of establish- ment,	Travelling allowance.	Conting quality of 1/2 miles	Other confin- gencies.	Total cost.	Imperial Fund.	Provincial Fund.	Local Fund.	Manielpalities.	Native State's	Total.	Number of all seconsful nations and respectivalist	Average cost of each successful
15	16	17	18	19	20	21	22	23	24	25	26	37
Rs, a, p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. s. p.		Rs. s. p.	Rs. a. p.	Rs. a. p.	Rr. a. p.	Rs. a. p.		Re. a 1
	1,421 3 0	-	230 15 6	4,650 8 9		8,759 11 0	170 0 0	920 13 9		4,850 8 9	08438	0 1
2,979 14 4	1,497 10 6	-	693 6 3	5,159 15 1		3,675 6 6	658 0 4	836 8 3		5,159 15 1	75641	0 1
3,191 2 10	1,481 2 3		38 2 3	5,056 7 4	-	3,969 3 9	160 0 0	927 3 7		5,056 7 4	62016	0 1
9,369 7 8	4,389 15 9	T	1,307 8 0	15,063 15 2	-	11,494 5 3	988 0 4	2,674 9 7		15,066 19 2	209005	0 1
-				-						-		1
2,452 14 0	1,295 9 6		234 0 0	3,983 7 6		2,906 9 6	196 14 0	819 0 0	400	3,982 7 6	79608	. 0 0
1,754 3 11	876 % 0		43 4 5	2,673 10 4		2,385 12 1		286 14 3		2,6:3 10 4	68255	0 0
3,030 7 11	493 9 0		341 6 0	3,865 6 11	***	3,115 4 11		750 2 0	***	3,865 6 11	104624	0 0
2,373 8 4	1,137 13 4		115 2 0	3,626 7 8		2,978 14 0	160 0 0	487 9 8		3,636 7 8	90387	0 0
9,611 8 2	3,903 1 10		733_12 5	14,148 6 5		11,447 8 6	356 14 0	2,343 9 11		14,148 0 5	347724	0 0
	-			-								
2,087 12 6	1,254 /2 4		299 13 0	3,642 5 10		2,029 6 4	***	712 15 6		3,642 5 10	87909	0 0
3,862 3 10	668 5 6		225 6 0	4,765 15 4		3,678 5 6	411 5 4	629 15 7		4,755 15 4 3,900 15 10	74532 51206	0 1
2,514 6 9 2,588 8 3	1,236 9 1		123 5 6	3,800 15 10 5,047 6 9		2,861 13 0 4,658 7 7	300 3 3	388 18 2		5,047 6 9	57158	0 1
11,053 15 4	5,485 3 11		708 8 6	17,246 11 9		14,128 0 5	720 8 7	2,398 2 9		17,246 11 9	271295	0 1
				-								
	1.023 4 6		143 0 0	4.003 1 9	3	2,641 8 1	596 0 0	764 9 8		4,003 1 9	89925	0 0
2,836 13 3 1,749 15 1	280 8 10		74 15 0	2,105 6 11	100	1,567 7 7	268 4 8	249 10 8		2,105 6 11	38009	0 0
2,078 4 8	1,466 0 0		46 2 6		***	- 3,588 7 2	100			3,588 7 2	9698	0 5
5,043 8 4	1,374 9 9		124 12 0	6,542 14 1		2,773 15 10	3,594 1 5	175 12 10		6,542 14 1	37595	0 2
2,831 18 10]	796 12 0	6 4 0	76 8 0	3,691 4 10		2,111 11 6	1,427 11 3	151 14 1		3,691 4 10	22606	0 2
14,528 6 2	4,930 3 1	6 4 0	405 5 6	19,930 2 9		12,628 2 2	5,908 1 4	1,351-15 3		19,980 2 9	198421	0 1
2000				1		-					4/200	0 1
1,663 9 10	1,223 11 5	***	128 12 0			2,788 5 6		257 11 9		3,076 1 3	40709 52111	0 1
2,004 15 6	1,201 8 1		146 0 0		1	2,848 7 7	71 15 0	564 0 0 153 4 2		2,464 11 6	31808	0 1
1,378 4 11	1,036 6 10		88 8 2			1,937 6 10		203 8 2		2,382 10 10	54056	0 0
1,851 2 2	777 12 6		80 4 0	200000000000000000000000000000000000000		2,426 4 10	A COUNTY OF THE PARTY OF THE PA	1:2 0 0	170 13 10	2,700 2 8	21563	0 1
8,589 12 3	4,933 13 8		491 7 11	14,015 1 10		12,240 1 1	313 10 10	1,290 8 1	170 13 10	14,015 1 10	209247	0 1
53,151 11 4	23,542 6 3	6 4 0	3,706 10	80,406 15 1		61,902 1 5	8,285 3 1	10,048 13 7	170 13 10	80,406 15 11	1235782	0
8,432 15 10	2,881 2 6		633 5	5 11,947 7	-	11,947 7 9				11,947 7 9	-	
* 100 10 C		1		8 9,198 0	0	9,198 0 6	-			9,198 0 6		
8,100 13 3 7,230 4 10			362 0			10.500 0 0	888			10,783 8 0		
20,856 1 11	9,315 1 6	-	1,769 12 1	1 31,929 0	3	31,929 0 1				31,929 0 3		-

B-DISPENSARY VACCINATION.

Statement No. III.—Showing Dispensary Vaccination in the Province of Bihar and Orissa during the year 1915-16.

		istrict to	attached to	1	vaccinated by		Primar	y vaccina	tion.		Re	raccinati	on."	successi	ch the	unknow	tage of rn cases I cases.	
		o in each district attached.	nations year.	vaccinated.	5		Si	ecessful.						1				
District,		Number of dispensaries schiels a vaccinator is a	Average number of vacci dispensaries during the	Total number of persons	Average number of persenter vaccinator.	Total	Under one year.	Over one and under six years.	Total of all ages.	Unknown.	Total.	Specessful.	Unknown.	Primary.	Bevaceination.	Primary.	Betweeinstien.	
1		2	3	4	5	6	7	8	9	10	u	12	13	16	15	16	17	
	-			-	1				-	33.7			100	-		1000		
Patua		***			100	-		***	***	101	***			***		***		
Gaya	***	***	***	***	-	***	***					-				***	***	
Shahabad	100	***	***		-							_				-	-	
Champaran	100													-		-		
Muraffarpur	-			107	-		***	***		***		in .		-	4	-	***	
Darbhanga	101	- 1	1	200	200	200	129	71	200	101			***	100100				
Monghyr	100					200	***	110		100	***	100	***	***		-		
Bhagalpur		1,14	100	100				***				Sec. 33		-		and .	10011	
Purnes								***	***	-	***			***	1	-	-	
Santal Parganas	400			141		:	-	100	***					***	0			
Cuttack	140		- 101	***	400	100		100		-		200		***		5002		
Balasore		101		261	130	85	3	9	15	70	176	25	151	100'00	100'00	82'35	85:79	
Angul			***	***	·		500	166	-			***	-		-0.1	1000	200	
Pari				***		***		-	***						***		-	
Sambalpur	***						/···		***	***			***	-			***	
Hazaribagh	- 100	244	101			7	444				-		100		-11 3	-		
Ranchi								1	- Can-	-		***	***		***	-	104	
Palaman	No.	***	+44 -	***		-	***		***	***	and .			***			red	
Manbhum			100			-	100	***	***	***		3000	100	***	*** 0	- 1995		
Singhbhum	***	-	-	***	-		- and		-	-			-	-			No. of Lot	
Total		1	1	461	*200	285	131	60	215	70	176	25	151	100'00	100-00	24'55	85-29	

* Darbhanga only.

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The state of the s

COMPARATIVE STATEMENT No. IV.

Comparative Statement No. IV .- Showing the number of persons primarily vaccinated, and the number of those per

									Persons primar
Betablishment		190	6-07	1907-	08	1908-	09	1909	-10
,		Total Number,	Number successfully vaccinated.	Total Number,	Number successfully vaccinated,	Total Number.	Number successfully vaccinated	Total Number,	Number successfully vaccinated.
1		,	3	.	* 5	6	7		
Government		 ***							
Municipal		 44127	42524	45895	43722	48330	44769	46047	4355
Local Fund		 . 74590	72479	93848	91055	96959	97104	92291	9118
Native States		 4920	4903	3885	3865	5581	5377	4269	424
Dispensaries		 1107	1088.	961	806	689	591	586	47:
deensed Vaccinators		 1061164	1051091	1057110	1046540	1005512	994418	1053044	105210
Tot	al	 1185908	1172085	1201699	1185988	1157071	1142259	1196237	119154

sons who were successfully vaccinated, in the Province of Bihar and Orissa in each of the undermentioned official years.

vaccinated.

191	10-11	191	1-12	. 190	2-13	19	13-14	19	14-15	19	15-16
Total Number.	Number successfully vaccinated,	Total Number.	Number successfully vaccinated.	Total Number,	Number successfully vaccinated.	Total Number.	Number specessfully vaccinated,	Total Number,	Number successfully vaccinated.	Total Number,	Number successfully vaccinated,
10	n	12	13	14	15	16	17	18	19	- 20	21
								649	515	10277	10046
46553	44671	46769	44879	43379	42311	44167	42480	47235	45310	43099	41661
97068	95561	96381	95057	86551	85965	82592	81790	76264	75266	94056	84636
4970	4956	4964	4943	4641	4581	5587	5578	6745	6740	4851	4843
516	415	384	303	188	185	186	186	178	176	285	215
1118587	1109896	1135713	1128318	1133310	1126927	1149467	1143922	1114753	1109554	1065023	1059266
1267694	1253499	1284211	1273440	1268069	1259969	1281999	1273946	1215824	1237561	1217591	1200667

Statement No. V .- Showing particulars of vaccination

	1						Total num	ber inspected	-			Per	rentage o
			ber of per- ccinated,	By Dep	puty Sanite Civil	ary Commissi Surgeous,	oners or	Nat	ive Superin Inspecting	tendents or a	other	By Deputy	y Sunitar
District.				Deputy Commis	Sanitary mioners.	Civil Sur	geons.	Dist Inspec		Sub-Insp	ectors.	Deputy 8 Commis	Saultary- slowers.
				-				10					
	100	Primary.	Revacelnation.	Primary.	Revacelnation.	Primary.	Revaceination.	Primary.	Revacelnation.	Primary.	Revacelnation.	Primary.	Reraceination.
	1	ă.	l m	Ä	pi .	1 6	- 4	£ .	2	6	2		120
1		,	3	4	8	6	7	8	9	10	11	12	13-
	-	ecent.	548	7443	-	1074	243	30611	_	35632	740	10'86	
dna		68501 78110	1477	7990		4164		18322	61	38008	6		-
ahabad		65:585	1001	6217		8376		13484		19249		9149	
ran		80701	810	27050		5881	703	37201	2	50005		23-51	-
amparan		68186	425	23402		£572	75	28520		27073	51	34:40	
maffarpur		104070	1505			19610	713	21637		42998	206	411	-
ebhanga		95252	781			2244	81	17344	***	43311	***	440	
onghyr		89008	74	12001		1948	***	17631	***	44452	***	13.63	**
agalpur		73151	2085	12950		1002	1633	10008	118	33163	158	17:70	
rnea	***	50726	2398		449	1679	11	8504	205	11066	1141	***	
ntal Parganas		55845	3178	***		2697	1528	13514	207	20304	1033		
ttack		90556	16311	8973	***	3906	59	10784	539	38408	130	9*90	**
lasere		34503	12722	3854	***	1336	1200	2086	***	16127	1667	11:17	**
gul	***	7007	4379			779	1766	3738	804	4190	2800		
iri	***	38006	1098	9241	200	1900	689	18806	64	23623	167	23 10	
mbalpur	100	23062	1434	***	***	2011	676	11062 7483	238 83	16749	315	4'63	
nzaribagh	***	45806	1224	2122		815		6978	335	26985	010	2.00	-
anchi		49308	2375	1808	***	5936 4613	126	6574	30	12321	700		
alaman	1000	30153 49189	9510	7341	***	2548	1382	4283	1409	9148	1143	14'92	
anbhum		19095	1142	11433	-	3140	314	8072	133	9601	182		
ognonum olitical States oghbhum.	of	4651	260	***	-	464	58	2042		2073	217	7	-
TOTAL		1217591	70628	133895		82485	10265	300484	4321	550626	16561	10-99	-

verified by Inspecting Officers during the year 1915-16.

		Marie :			1						2 - 33 5	1000		Percenta	
emmissi Svii Su	ioners or rgeous,	By Nati	ve Superint Inspecting	tendents or Officers.	other	By Depo	or Civil S	ry Commissi argeous.	ioners	By Native In	Superinte specting C	odents or officers.	other	repor by vaccin	d case
Civil S	orgeons.	Distr Inspec		Sub-Insq	ectors.	Deputy 8 Commiss	Sanitary sioners.	Civil Su	rgeons.	Distr Inspec		Sub-Ins	pectors.		
Primary.	Revaccination.	Primary.	Bernceination.	Primary.	Revaceluation.	Primary.	Revaccination.	Primary.	Revaceination.	Primary.	Revactination.	Prinary.	Revaceleation.	Primary.	Reraccination.
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
2'44	44-34	44'08		51-98		91.60		19:18	78-19	98-79	-	99-21		99*36	681
5'54		24'39	4-13	50-68	-40			100-00		94'69	42-63	95:35	50:00	93:40	64
8-21		20159	***	29-39		87:22		90'02	. Dest	87-91		96-95	-	97-43	30
7-28	86'78	46'09	10.00	74-23		93-25	***	98'80	57-46	18:90	100.00	98'86	****	98'09	73
12:57	17'64	41.82		39-70	12.00	91. 3		10-93	53-33	99-70	118	90°50	78'43	99-65	71
19:03	44:70	20198	100	41-3:	23-35		***	99'05	83-81	98-67	100	58:98	65-91	99.78	58
2-35	10:37	18:10	***	43.58				98-49	83:71	99-22		96.80	***	99.08	331
2.09	***	20-26	***	50.20		99*24	***	99-13		98*61		99-93	***	99*95	36
1-37	78.27	23-11	5-37	45:33	7:57	99 83		80.60	76-77	99-83	62'50	99-79	87:97	299 81	171
3.30	'45	1076	8:51	21.81	47.58			\$8.88	100'00	99'31	83-90	10.00	29:79	99:35	33
4.82	16-61	-24-19	9-66	59-26	32.50		400	98 77	45'26	08:03	57-18	98'71	67 69	99-71	58
4:31	*,12	11'90	2.04	36'95	'70	95-43	***	99-00	74:57	95'34	50-55	97-72	61:72	91-46	47
3.67	9150	7:79 53:34	19:36	46'74 59'79	13:18		144	97.43	85/27	96'49	56*80	95'84	86'58	91:55	74
11.11	40°32 62°75	48-71	5-82	61.18	15.30	95-80		1816	82-58	18-55	56-25	94-70	59'88	95 37	70
8-71	47:14	47 90	10:59	51-99	24-12			50-04	52-95	91.48	47:80	92.66	51-73	91.86	50
1:77	67.10	16:33	6-69	36-56	25:73	95-80		98-45		90.72	86'58	99-73	90-15	99-97	80
12-01		14:12	8-56	54-12		95.74		100.00	-	50.35	84-47	9974	***	99*97	60
15-19	5-30	21.61	1.26	60:32	29-47	100	***	100-00	87:30	90°81	100-00	99-45	72:71	19-28	6
5'18	14:53	8-70	14 81	18:50	12-01	90'62		26:39	52-67	98-20	53-21	99-10	53'37	9076	6
16-50	27'49	42:42	11.64	50.46	15 93		100	69:90	68-15	05:50	50-97	99*05	58-24	99-27	50
9-97	22.30	42.00	***	46-85	83-46		200	100.00	91:37	99-05		99-20	82-02	99-63	7
	1 STA	110	1-11-10	1.00		-	- 10		-						
-	THE OWNER WHEN	STREET, SQUARE, SQUARE,	_		-		1			1					1

Statement No. VI .- Slowing side by side the ratios, per 1,000 of population, of Deaths from

- 1200				1906-07		1907-08	,	1908-09	1909-10			
D	Histrict.		Ratio of deaths from Small-pox.	Number of successful vaccina-	Ratio of deaths from small-pex.	Number of successful vaccina-	Eatlo of deaths from small-pox.	Number of successful vaccina-	Ratio of deaths from small-pox.	Number of specessful vaccina-		
	1 ,		3	3	4	5	6	7	8	0		
Patna			.58	50407	1.69	52260	2.94	52570	1.23	51589		
Gaya	***		-28	72720	1.93	73980	2.68	72395	-62	74725		
Shahabad			.11	52483	.71	50939	1.76	53759	-67	46311		
Saran	***		.11	74338	.29	65785	-96	74035	*84	76930		
Champaran		***	•10	49019	-38	57722	-80	56148	-44	63172		
Muzaffarpur			-05	99054	-09	101292	-23	101612	-22	98808		
Darbhanga		***	-09	80126	.11	89884	.13	75833	-29	83005		
Monghyr			-46	83081	1.00	80846	-61	78958	-30	79069		
Bhagalpur	***		.93	79717	1.25	76312	15	71328	-24	77682		
Purnea			.55	59430	-41	52054	108	50937	-36	61698		
Sontal Pargana			.51	63028	.66	58350	-71	65509	-36	67015		
Cuttack			.14	77025	-29	95087	-28	107484	•12	134160		
Palasore			-80	37841	1.25	29806	*64	35811	.56	44340		
Angul	***		***	8886		8283		2022		7602		
Puri			4.72	40682	2.24	55482	-83	53920	.16	52438		
Sambalpur			-004	25024	-14	27441	17	28265	-04	27124		
Hazaribagh			*04	43816	-23	48899	1.27	42294	.42	42659		
Ranchi			-02	46315	-23	53933	1.48	44656	-81	46968		
Falamau	***		.02	17615	-15	16241	1.19	27936	1.42	31133		
Manbhum			*08	54690	.31	63508	-46	62937	-21	58160		
Einghbhum	***		.000	19007	.12	18527	.22	22721	-42	17409		
Political State	of Singhbl	nam		4903		3987		5377		4393		
	Total		-39	139207	·67	1174618	-83	1194561	.45	1246390		

17
small-pox and the number of successful vaccinations during the 10 years ending 1915-16.

Ī	1	910-11		1911-13	16	912-13		1913-14:		1914-15	16	015-16
	Eatlo of deaths from small-pex.	Number of successful vaccina- tions.	Eatlo of deaths from small-por,	Number of successful vaccina- tions.	Ratio of deaths from small-pox.	Number of successful vaccina- tions.	Ratio of deaths from small-pox,	Number of successful vaccina- tions,	Ratio of deaths from small-pex.	Number of successful vaccina- tions.	Ratio of deaths from small-pox	Number of successful vaccina- tions.
-	10	11	12	13	14	2 15	16	17	18	19	20	21
	•30	45665	-09	48687	-07	48768	•17	48480	48	57665	•71	68438
1	.07	68104	*07	69923	-008	66965	.03	67817	.10	65855	-68	75641
1	*04	39890	.02	36809	1006	47088	-09	53812	-32	62079	-45	65016
ı	-07	86741	.03	83221	:006	85339	-06	81699	-06	80729	-15	79608
ı	.03	59887	-03	60354	.07	55486	-02	63100	.10	64146	.14	68255
1	-03	101395	.05	102535	*04	101405	.01	103052	-09	105292	-24	-104624
	-07	84025	-06	83343	.01	93546	.06	93735	-24	97760	-41	95237
1	.11	85497	-69	89123	.08	84475	.48	89024	46	89749	-42	87999
1	-26	74438	-43	80294	-41	77274	-31	75244	.35	75831	-38	74532
	-39	63167	-24	£9469	.14	50956	-22	60587	.30	58496	.38	51206
	.07	67446	.08	61909	.19	60236	.27	64815	.18	53182	-37	57558
1	007	139487	-002	153747	.01	137175	-01	134227	.06	113297	-69	89925
I	-41	56052	-19	63287	.006	68271	-11	69059	.90	53281	.90	38609
1		9353		8207		5906		7945		7680	-01	9086
-	-007	53738	·006	53619	.02	55642	*07	47269	-02	33820	.80	37595
1	-08	33399		33153	.04	25955	-05	25063	02	27561	•75	22606
1	.01	50075	1006	46544	-02	46150	.02	51777	.03	48299	.49	46709
-	.07	57541	.02	48913	.004	51096	-01	49989	*03	50958	-12	52111
1	11	21059	-008	24782	***	23683	.07	21459	·10	28327	-17	31803
	.01	60086	-0906	60420	*005	61191	-02	61316	.43	73369	-63	54056
-	-08	26593	.004	22841	-05	20254	.09	23496	.45	25909	.28	19526
-		4956		4987	***	4581		5654		6742		5037
-	.10	1288594	.08	1293587	*06	1275440	-11	1298619	-28	280027	-42	1235782

Statement No. VII. -- Showing the protection afforded to infants in each town in the Province of Bihar and Orissa during the year 1915-16.

		The Marie of					
District.		Town		Number of births du- ring the year ending 31st March 1910,	Number of deaths amongst infants under one year during the year ending 31st March 1916.	Number of snecessful varcinations amongst infants under one year during the year ending 31st March 1916.	Date of extension of Vacci- nation Act to town.
1		2		3	4	5	. 6
	r	Patna		3220	666	2116	1st October 1884.
		Bihar		1341	212	935	1st April 1887.
Patna	}	Dinapur		1109	231	795	28th January 1891.
	110	Barh		317	58	227	1st April 1887.
	(Khagole		225	44	- 149	12th July 1910.
		Total		6212	1211	4222	
ir ii.	(Gaya		1916	763	1088	lst January 1883.
Gava	}	Tikari		215	47	107	3rd ,, 1891.
	l	Daudnagar		386	84	224	Ditto.
		Total		2517	894	1419	
	(Arrah	101	1424	298	1272	20th July 1885.
		Buxar		434	. 77	386	1st April 1887.
m 1 1 1	İ	Dumraon		526	114	183	Do.
Shahabad	1	Jagadespur		333	68	341	20th December 1890.
		Sassaram		891	129	818	1st April 1887.
	1	Bhabhua	,	212	31	280	Ditto.
		Total	F10	3820	712	3283	
				- (15)			
	-	Total of Pasion		12549	2817	8924	
	(Chapra		1495	306	752	1st April 1887.
Saran	}	Revelganj		905	146	269	12th December 1890.
	l	Siwan		57	_ 75	329	1st April 1887.
		Total		2927	527	1350	
Claman	(Motihari		350	92	204	1st April 1887.
Champaran	{	Bettiah		850	159	518	Ditto.
		Total		1200	251	722	

Statement No. VII.—Showing the protection afforded to infants in each town in the Province of Bihar and Orissa during the year 1915-16—contd.

	-	-	Number of births du- ring the	2.11	compat infants	Number of successful vaccinations allongss infants under one	Date of extension of Vacci-
District.	Towns.		year ending 31st March 1916.	dur	der one year ing the year ending 31st March 1916,	year during the year ending 31st March 1916.	nation Act to town.
1	2	-	3		4	5	•
- ARTHURNIC	Muzaffarpur		1209	1	278	974	1st January 1886.
Muzaffarpur	Sitamarhi		313		61	265	1st April 1887.
Muzanarpur	Hajipur		706	-	128	744	Ist May 1890.
District of the last	Lalganj		344	-	63	320	lst April 1887.
	Total		2572		580	2303	
-	Darbhanga		1998		419	1028	24th May 1884.
	Roserha		340		81	204	3rd January 1891.
Darbhanga	Samastipur		282		51	152	25th July 1910.
	Madhubani		534	-	69	268	1st April 1887.
	Total		3152	-	620	1652	
	0.1		5152	-	0.20	1002	•
	Total of Tirhut	t	9851		1928	6027	
	Division.			-			
(Monghyr		1878		364	1393	15th November 1882.
Monghyr {	Jamalpur		967	-	178	737	Ditto.
	Total		2814	-	542	2130	
in the Cal	Bhagalpur		1818		307	963	15th February 1884 withdrawn on 16th
Bhagalpur	er julian					The state of	O.tober 1895; re- extended on 18th August 1898.
del sonat id	Colgong		204		28	53	Ditto re-extended on 19th December 1901.
SETZON AND	Total		2022	-	335	1018	a desirable
	Punner		431	-	68	240	lst Ju'y 1887.
	Purnea Kishanganj	***	043		56		-
Purnea	Katihar	***	936		3(
	Forbaganj		150		2-		
	- oro-sganj	***	-				
	Total		1157	7	17	8 708	

Statement No. VII.—Showing the protection afforded to infants in each town in the Province of Bihar and Orissa during the year 1915-16—contd.

			-			
District,	Towns		Number of births Curing the year ending 31st March 1916.	Number of deaths amongst infants under one year during the year ending 31st March 1916,	Number of successful vaccinations amongst infants under one year during the year ending 31st March 1916,	Date of extension of Vaccination Act to town.
1	2		3	.4	5	6
	Sahibganj		495	62	351	1st May 1884.
Santal Parganas	Deoghar		284	46	319	Ditto.
vantat Laiganite	Madhupur		325	39	263	22nd August 1910.
	Dumka	100	233	36	195	Notifications dated the 9th April 1884 and 23rd August 1910.
	Total	W	1337	183	1128	
SELECTION OF	Total or pur D	f Bhagal- livision.	7860	1238	4984	Miller
(Cuttack		1160	260	1255	1st September 1884.
Cuttack	Kendrapara		457	146	270	7th February 1888.
	Jajpur	met	370	118	107	Ditto.
Construence and	Total		1987	524	1612	
Balasore	Balasore		507	99	353	7th February 1888.
Puri	Puri		679	421	248	Ditto.
Sambalpur	Sambalpur		389	145	317	7th March 1895,
market state of	Total of Divisi		8562	1189	2530	and the same
	Hazaribagh		565	69	291	1st January 1885.
Hazaribagh {	Chatra		277	- 42	122	1st August 1885.
t	Giridih		243	33	121	8th September 1910.
to comprise to	Total		1085	144	531	
Parali	Ranchi		909	112	926	1st April 1887.
Ranchi	Lohardaga		213	23	240	25th June 1892.
	Total		1122	185	1166	

Statement No. FII.—Showing the protection afforded to infants in each town in the Province of Bihar and Orissa during the year 1915-16—concld.

District.		Towns.	Number of births during the year ending 3trt March 1916.	Number of deaths amongst infants under one year during the year ending 31st March 1910,	Number of successful vaccinations amongst infants under one year during the year ending 31st March 1916.	Date of extension Vaccimation Act to town,
1		2	3		5	6
Palamau		Daltonganj	258	55	190	9th October 1890.
	1	Purulia	354	45	329	lst January 1887.
Manbhum	}	Raghunathpur	193	39	- 130	9th February 1894.
		Jhalda	202	27	56	9th July 1892.
		Total	749	111	515	
Singhbhum		Chaibassa	287	28	211	20th June 1892.
		Total of Chota Nagpur Division.	3501	478	2616	
		Total for the Pro- vince.	36823	7645	25081	

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ANNEXURE II.

ANNEXURI

Provincial Statement.—Showing the different kinds of lympi

	-AVINA							Primary v	accination.	-		,		
			1	irect from	the cal	lf.			With las	1	Arm-to-ara			
Dist	riot.		Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unemocesful.	Unknown.	Percentage of successful cases.	Total.	Successful.
-	1			3	4	5	6	7	8	9	10	11	13	13
Patna		***				1		53390	53029	183	178	9932	15111	15036
Gaya		***	***			***	***	75110	74688	301	121	99:43	***	
Shahabad	***		***					55777	55235	453	89	99.02	9708	949
Saran		***	***					80701	79192	703	806	98-13		·
Champaran	***			***				68186	67952	130	104	99-65		
Muzaffarpur	100	***	***			***		97083	96743	290	49	99-65	6988	6951
Darbhanga	***	100		200			100	95252	94952	274	26	99-68	***	
Mongbyr	***			***		-		89008	87972	26	10	99-82		
Bhagalpur	***			***	-			71358	71258	28	72	99'86	1793	1775
Purnea	***	141	***				***	48116	47817	271	28	99-37	2610	2584
Santal Pargana				***	100	-	***	55845	55688	94	63	99-71		
Cuttack	***						100	90556	85410	672	4,474	94:31		
Balasore	***		***	149	***		1	184508	32596	192	1715	91.49		***
Angul			***				161	7007	6416	362	299	91.56		
Puri	110	444	***			***		38606	36820	1056	730	95-37		
Sambalyur	***		5415	5289	21	5	99-09	17647	16488	798	361	93-43		
Hazaribagh							4	45806	45783	-64	9	99'84		
Ranchi	***	71.	3730	3730	***		100-00	45668	45657	3	8	99-97		
Palamau	***			444	***			30553	30333	107	113	99-27		
Maubhum	***	***			***	***	***	42864	41684	77	1103	97-24	6325	6312
Singhbhum							741	19025	18888	80	57	99-27		
Political States	of Singh	bhum	***					4851	4843	1	7	99-83		
TOTAL	***		9145	9119	21	5	99-71	1165911	1149394	6165	10352	99-58	42535	42154

B. & O. G. P. (any. Commr.) No. 15-450-18-6-916,-

II.

used and their rates of success during the year 1915-16.

									F	Ceraccinatio	on.						
racciu	ation.			Direct	from t	he calf		1 .	With lanol	ine or glyon	Arm-to-arm vaccination.						
Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Successful.	Unsuccessful.	Unknown.	Percentage of successful cases.	Total.	Saccesful.	Unanccessful.	Unknown.	Percentage of successful cases.	Total	Successful	Unsuccessful.	Unknown.	Percentage of successful owers.
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	43	99-50			***			548	373	159	16	68:06				***	***
							***	1477	933	305	219	64-52					
198	14	97-81	***		***			1084	283	745	56	26 10	7	2	5		28-5
				***				810	416	307	87	51'35					***
	***	***	***					425	303	80	42	71:29		***	***		414
33	4	99:47	***		***		111	1449	832	378	289	57:41	146	98	38	10	67:1
		***			***			781	285	285	211	36 46	-	***			
			101		***	200	***	74	27	47		36'48			***		
7	11	96-99		-				2085	1409	565	21	71-89			***		***
16	10	99-00					919	2398	805	1587	6	33.56		***	***		***
	101		***	***		***		3178	1870	1113	195	58 84	***			***	24.0
		***	101	***	***		***	18311	4515	4638	9158	24-65	***	***			***
		***	***	***				12722	6013	2001	4618	47:30	***				
			***	***				4379	3270	747	362	74-62	***		***	***	
***		110				-		1098	775	235	88	70-58	***			***	***
	***	***	291	239	44	8	82-13	1143	490	554	99	4286				***	***
		***	***				***	1224	976	246	2	79-73	***		-		-
	***	***	2271	1496	689	86	65-87	1640	1228	278	134	74.87	***		***	***	***
***		***	***		***			2375	1475	671	229	62.10			***	***	
12	1	99-79	***		101			9510	6060	3237	213	63.72			***		
***		***						1142	638	378	126	55-86	***				10.0
								200	194	62	4	74:61	***		***		
298	83	99:10	2562	1735	733	94	67-72	68113	33280	18708	16125	48'85	153	100	43	10	65

