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TRINIDAD AND TOBAGO



HEALTH
MEDICAL AND SANITARY
REPORT
of the
DIRECTOR OF MEDICAL SERVICES
for the Year

1945



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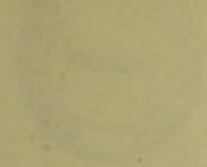
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CONTENTS

	PAGE.
SECTION I GENERAL ADMINISTRATION	1
SECTION II FINANCE	2
SECTION III VITAL STATISTICS	3
SECTION IV PUBLIC HEALTH	4-6
SECTION IVA. SPECIAL DIVISIONS AND SERVICES	7-15
Leprosy Division	7
Malaria Division	8-11
Venereal Diseases Control Division	11-13
Dental Service	13
Work on Nutrition	14
SECTION V HYGIENE AND SANITATION	15-18
1. Preventive Measures	15
2. General Measures of Sanitation	15
3. School Hygiene	16
4. Measures taken to spread the knowledge of Hygiene and Sanitation	17
5. Labour conditions	17
6. Housing	17
7. Food in relation to health and disease	18
SECTION VI PORT HEALTH WORK AND ADMINISTRATION	18
SECTION VII MATERNITY AND CHILD WELFARE SERVICES	18
SECTION VIII HOSPITALS AND DISPENSARIES	19-22
Colonial Hospital, Port-of-Spain	19-20
Colonial Hospital, San Fernando	21
Colonial Hospital, Tobago	21
St. Ann's Mental Hospital	22
SECTION IX LABORATORY SERVICES	23
TABLE I Principal causes of deaths for the years 1944 and 1945	
TABLE II Prevalence of notifiable infectious diseases and other communicable diseases during 1944 and 1945.	
TABLE III General diseases treated in hospitals during 1944 and 1945	
TABLE IV Showing conditions for which patients were admitted to the Mental Hospital in 1944 and 1945.	
TABLE V Showing causes of deaths of patients dying at the Mental Hospital during 1945.	
TABLE VI Summary of Staff :	
TABLE VIA Distribution of staff	
APPENDIX I Report on residual D.D.T. House Spraying at California, 1945	
APPENDIX II Report on Malaria Control of Bromeliad Malaria for 1945.	



Page

1	Introduction	1
2	Chapter I	1
3	Chapter II	1
4	Chapter III	1
5	Chapter IV	1
6	Chapter V	1
7	Chapter VI	1
8	Chapter VII	1
9	Chapter VIII	1
10	Chapter IX	1
11	Chapter X	1
12	Chapter XI	1
13	Chapter XII	1
14	Chapter XIII	1
15	Chapter XIV	1
16	Chapter XV	1
17	Chapter XVI	1
18	Chapter XVII	1
19	Chapter XVIII	1
20	Chapter XIX	1
21	Chapter XX	1
22	Chapter XXI	1
23	Chapter XXII	1
24	Chapter XXIII	1
25	Chapter XXIV	1
26	Chapter XXV	1
27	Chapter XXVI	1
28	Chapter XXVII	1
29	Chapter XXVIII	1
30	Chapter XXIX	1
31	Chapter XXX	1
32	Chapter XXXI	1
33	Chapter XXXII	1
34	Chapter XXXIII	1
35	Chapter XXXIV	1
36	Chapter XXXV	1
37	Chapter XXXVI	1
38	Chapter XXXVII	1
39	Chapter XXXVIII	1
40	Chapter XXXIX	1
41	Chapter XL	1
42	Chapter XLI	1
43	Chapter XLII	1
44	Chapter XLIII	1
45	Chapter XLIV	1
46	Chapter XLV	1
47	Chapter XLVI	1
48	Chapter XLVII	1
49	Chapter XLVIII	1
50	Chapter XLIX	1
51	Chapter L	1
52	Chapter LI	1
53	Chapter LII	1
54	Chapter LIII	1
55	Chapter LIV	1
56	Chapter LV	1
57	Chapter LVI	1
58	Chapter LVII	1
59	Chapter LVIII	1
60	Chapter LIX	1
61	Chapter LX	1
62	Chapter LXI	1
63	Chapter LXII	1
64	Chapter LXIII	1
65	Chapter LXIV	1
66	Chapter LXV	1
67	Chapter LXVI	1
68	Chapter LXVII	1
69	Chapter LXVIII	1
70	Chapter LXIX	1
71	Chapter LXX	1
72	Chapter LXXI	1
73	Chapter LXXII	1
74	Chapter LXXIII	1
75	Chapter LXXIV	1
76	Chapter LXXV	1
77	Chapter LXXVI	1
78	Chapter LXXVII	1
79	Chapter LXXVIII	1
80	Chapter LXXIX	1
81	Chapter LXXX	1
82	Chapter LXXXI	1
83	Chapter LXXXII	1
84	Chapter LXXXIII	1
85	Chapter LXXXIV	1
86	Chapter LXXXV	1
87	Chapter LXXXVI	1
88	Chapter LXXXVII	1
89	Chapter LXXXVIII	1
90	Chapter LXXXIX	1
91	Chapter LXXXX	1
92	Chapter LXXXXI	1
93	Chapter LXXXXII	1
94	Chapter LXXXXIII	1
95	Chapter LXXXXIV	1
96	Chapter LXXXXV	1
97	Chapter LXXXXVI	1
98	Chapter LXXXXVII	1
99	Chapter LXXXXVIII	1
100	Chapter LXXXXIX	1
101	Chapter LXXXXX	1
102	Chapter LXXXXXI	1
103	Chapter LXXXXXII	1
104	Chapter LXXXXXIII	1
105	Chapter LXXXXXIV	1
106	Chapter LXXXXXV	1
107	Chapter LXXXXXVI	1
108	Chapter LXXXXXVII	1
109	Chapter LXXXXXVIII	1
110	Chapter LXXXXXIX	1
111	Chapter LXXXXXX	1
112	Chapter LXXXXXXI	1
113	Chapter LXXXXXXII	1
114	Chapter LXXXXXXIII	1
115	Chapter LXXXXXXIV	1
116	Chapter LXXXXXXV	1
117	Chapter LXXXXXXVI	1
118	Chapter LXXXXXXVII	1
119	Chapter LXXXXXXVIII	1
120	Chapter LXXXXXXIX	1
121	Chapter LXXXXXXX	1
122	Chapter LXXXXXXXI	1
123	Chapter LXXXXXXII	1
124	Chapter LXXXXXXIII	1
125	Chapter LXXXXXXIV	1
126	Chapter LXXXXXXV	1
127	Chapter LXXXXXXVI	1
128	Chapter LXXXXXXVII	1
129	Chapter LXXXXXXVIII	1
130	Chapter LXXXXXXIX	1
131	Chapter LXXXXXXX	1
132	Chapter LXXXXXXXI	1
133	Chapter LXXXXXXII	1
134	Chapter LXXXXXXIII	1
135	Chapter LXXXXXXIV	1
136	Chapter LXXXXXXV	1
137	Chapter LXXXXXXVI	1
138	Chapter LXXXXXXVII	1
139	Chapter LXXXXXXVIII	1
140	Chapter LXXXXXXIX	1
141	Chapter LXXXXXXX	1
142	Chapter LXXXXXXXI	1
143	Chapter LXXXXXXII	1
144	Chapter LXXXXXXIII	1
145	Chapter LXXXXXXIV	1
146	Chapter LXXXXXXV	1
147	Chapter LXXXXXXVI	1
148	Chapter LXXXXXXVII	1
149	Chapter LXXXXXXVIII	1
150	Chapter LXXXXXXIX	1
151	Chapter LXXXXXXX	1
152	Chapter LXXXXXXXI	1
153	Chapter LXXXXXXII	1
154	Chapter LXXXXXXIII	1
155	Chapter LXXXXXXIV	1
156	Chapter LXXXXXXV	1
157	Chapter LXXXXXXVI	1
158	Chapter LXXXXXXVII	1
159	Chapter LXXXXXXVIII	1
160	Chapter LXXXXXXIX	1
161	Chapter LXXXXXXX	1
162	Chapter LXXXXXXXI	1
163	Chapter LXXXXXXII	1
164	Chapter LXXXXXXIII	1
165	Chapter LXXXXXXIV	1
166	Chapter LXXXXXXV	1
167	Chapter LXXXXXXVI	1
168	Chapter LXXXXXXVII	1
169	Chapter LXXXXXXVIII	1
170	Chapter LXXXXXXIX	1
171	Chapter LXXXXXXX	1
172	Chapter LXXXXXXXI	1
173	Chapter LXXXXXXII	1
174	Chapter LXXXXXXIII	1
175	Chapter LXXXXXXIV	1
176	Chapter LXXXXXXV	1
177	Chapter LXXXXXXVI	1
178	Chapter LXXXXXXVII	1
179	Chapter LXXXXXXVIII	1
180	Chapter LXXXXXXIX	1
181	Chapter LXXXXXXX	1
182	Chapter LXXXXXXXI	1
183	Chapter LXXXXXXII	1
184	Chapter LXXXXXXIII	1
185	Chapter LXXXXXXIV	1
186	Chapter LXXXXXXV	1
187	Chapter LXXXXXXVI	1
188	Chapter LXXXXXXVII	1
189	Chapter LXXXXXXVIII	1
190	Chapter LXXXXXXIX	1
191	Chapter LXXXXXXX	1
192	Chapter LXXXXXXXI	1
193	Chapter LXXXXXXII	1
194	Chapter LXXXXXXIII	1
195	Chapter LXXXXXXIV	1
196	Chapter LXXXXXXV	1
197	Chapter LXXXXXXVI	1
198	Chapter LXXXXXXVII	1
199	Chapter LXXXXXXVIII	1
200	Chapter LXXXXXXIX	1

HEALTH

Medical and Sanitary Report of the Director of Medical Services for the year 1945

HON. COLONIAL SECRETARY,

I have the honour to submit, for the information of His Excellency the Governor, the Annual Report of the Director of Medical Services for the year 1945.

G. MACLEAN,
Director of Medical Services.

SECTION I—GENERAL ADMINISTRATION.

The state of health of the colony during 1945 was not materially different from that during previous years.

There are a number of local medical problems which require investigation, the most obvious of which are fevers of unknown origin, rheumatic conditions, intestinal infections, anaemias and nephritis.

Progress has been made in the control of malaria by the extension of anti-mosquito measures (including the use of D.D.T.), with the treatment of cutaneous lesions of leprosy by changes in the diet and the administration of yeast, promin and diazone, and in the treatment of various infectious diseases by the more extensive use of penicillin.

Venereal diseases among the general population and helminthic diseases in the rural areas continue to be responsible for a considerable amount of ill health, while deaths from tuberculosis still remain seriously high.

There was a slight increase in the number of cases of typhoid, 511 cases being recorded as against 423 in 1944.

There was a general improvement in both rural and urban housing but the extensions and improvements made still fall far short of what is actually needed and, in the urban areas, particularly, bad and insufficient housing still form one of the chief obstacles to the improvements of the standard of health.

Systematic health education was begun on a small scale towards the end of the year.

Observations were continued on the state of nutrition of the general population. A number of surveys were carried out in which family dietaries were compared with the family state of health. Other surveys were carried out on the nutritional state of school children and observations were made on the use of skimmed milk as an accessory to the children's diet.

The post of Superintendent, Infant Welfare and Maternity Services, was vacant for the first three months of the year.

SECTION II—FINANCE

A. Revenue.

			\$	c.	\$	c.
Bacteriological fees	..	..	..	630	64	
Dental clinic fees	..	..	..	236	52	
Fumigating vessels	..	..	..	45	50	
Examination fees: Sanitary Inspectors and Nurses	..	..	..	—
Hospitals—Maintenance of patients and operation charges	..	..	..	45,711	16	
Hospitals—Miscellaneous	..	..	..	1,890	97	
Medicines sold at Institutions	..	..	..	12,725	22	
Milk badges, milk vendors and dairymen licences	..	..	..	143	79	
Surplus stores	..	..	..	505	62	66,435 42
Reimbursements	..	..	..		865	31
Total	..	..	..		67,300	73

3.

B. Expenditure

Service	Personal Emoluments	Transport and Travelling	Other Charges	Total
	\$ c.	\$ c.	\$ c.	\$ c.
1. General Administration ...	2,796.21 77	78,922 19	40,985 99	399,529 95
2. Institution Service ...	430,490 79	...	935,243 00	1,365,733 79
3. District Service ...	56,951 73	...	42,270 04	99,221 77
4. Public Health and Sanitary Services ...	101,384 84	...	80,892 63	182,277 47
5. Laboratory Service ...	11,727 55	...	4,767 46	16,495 01
6. Quarantine Service ...	2,036 00	...	5,745 70	7,781 70
7. Venereal Disease Control...	...	...	182,937 73	192,937 73
8. Venereal Disease Service ...	4,416 10	...	5,476 84	9,892 94
9. Dental Service ...	107,776 37	...	2,446 00	13,222 37
10. Tuberculosis Survey ...	...	...	4,219 73	4,219 73
11. Leprosy Survey...	...	...	...	...
12. Yellow Fever Control ...	...	...	101 63	101 63
13. Experimental Nutrition Unit ...	...	...	6,708 96	...
14. Extraordinary—Purchase of Ambulance, &c. ...	...	...	15,416 27	15,416 27
15. Unallocated Stores—Medical Stores ...	...	...	24,036 72	24,036 72
16. Miscellaneous ...	...	...	4,878 45	4,878 45
Total ...	\$897,405 15	\$78,922 19	\$1,351,248 70	\$2,327,576 04

SECTION III—VITAL STATISTICS.

4. The estimated population of the colony at 31st December, 1945 was 558,048. In 1944 the population was estimated to be 546,088. The excess of births over deaths was 767 more than the 1944 excess while the difference between immigration and emigration was 604 in excess of the figures for 1944, making the total increase in the population 1,371 more than the figures for 1944.

Population densities per square mile were in respect of Trinidad 281, of Tobago 296, and of the colony as a whole 282.

There was an increase of 0.42 per thousand in the birth rate of 1945 compared with the preceding year, the total number of births registered being 21,616 of which 10,959 were boys and 10,657 girls. The birth rate per thousand was 39.15 in 1945 and 38.73 in 1944.

Still births registered during the year numbered 1,113 of which 509 were East Indians. The number of still births per thousand live births of the entire population was 51 as compared with 47 in 1944. There was a decrease of East Indian births in 1945—57 per thousand as compared with 68 in 1944.

The total number of deaths registered during 1945 was 7,959 of which 4,295 were males and 3,664 females. The death rate per thousand was 14.42 as compared with 14.89 in 1944.

Deaths from cancer numbered 229, compared with 249 in 1944.

The infantile mortality rate was 83.87 compared with 80.4, an increase of 3.47.

The following table gives a comparison of the total births, the number of deaths under one year and the infantile mortality rate for the past three years:—

Year	Total Births	No. of Births under 1 year	Infantile Mortality rate
1943	20,210	1,884	93.22
1944	20,944	1,684	80.4
1945	21,616	1,813	83.87

SECTION IV—PUBLIC HEALTH

General and communicable diseases

5. The numbers of cases and deaths reported during the year from communicable and other diseases are shown in Tables I and III.

Injuries:

6. In Port-of-Spain more than ten per cent. of the cases admitted to the Colonial Hospital are injuries, if wounds and poisoning are included as well as accidents.

Mental Diseases:

7. A total of 343 cases were admitted into general and mental hospitals during the year. Two hundred and eighty-nine cases were discharged. The commonest conditions were mania, confusional insanity, schizophrenia, delusional and secondary dementia. Fuller particulars are given under Section VIII.

Nutritional diseases and dental caries:

8. The returns from institutions give no indication of the prevalence of nutritional defects except in so far as they show that gross forms of food deficiency are met widespread.

A survey commenced by Dr. Platt and Dr. Vickers in 1944 and continued by the latter, by Dr. Waterlow, and by members of the staff (principally Dr. Gillespie, Dr. Abidh and, in antenatal cases and infants, by Dr. Waterman) showed that there is a widespread, if minor, deficiency of the vitamin B complex, calcium and probably iron.

Dental caries is very prevalent. The majority of school children suffer, sometimes extensively, from caries. Fuller reports on the dental services are given in Section IVA, and on Nutrition in sub-section 5 of Section IVA.

General Diseases :

9. Probably the commonest general disease of economic importance is *Tropical Ulcer*. Large numbers are treated in district treatment centres which do not appear in the tables of this report and no doubt there are also large numbers who do not report for treatment.

The other commoner general diseases (excluding nutritional diseases) are hernia, malignant and benign tumours, appendicitis, eye affections and diabetes.

There is a local disease a form of spastic paralysis—the aetiology of which is not known, which deserves special attention. It resembles lathyrism in many ways but it cannot be specifically associated with a bean or a pea diet and some cases have shown considerable improvement on special hospital diet.

Communicable diseases :

10. The more important of the communicable diseases are named below :—

Chicken Pox
Helminthic Diseases
Leprosy
Malaria
Tuberculosis
Typhoid
Venereal Diseases
Whooping Cough
Yaws:

The incidence of notifiable disease is shown in Table II.

11. *Chicken Pox* occurs in the form of sporadic outbreaks from time to time. During the year it was particularly prevalent in Port-of-Spain where 122 cases were reported, 27 of them being from the local gaol.

12. *Helminthic diseases* are still common. Hookworm surveys were carried out in various places during the year, as shown in the table below :—

County	Persons examined	Persons with Hookworm positive	Percentage Positive
St. George	4,509	1,524	33.7 per cent
Caroni	1,770	757	42.0 " "
Victoria	8,839	2,553	28.7 " "

13. Leprosy is dealt with more fully in Section IVA. One feature of interest is the results obtained with diazone, promin and preparations of the Vitamin B complex. Improvement in the general health was found with all three preparations, except that with the drugs there was occasionally a leprous reaction. In no instance did a bacteriologically positive case become negative.

14. *Malaria* is also dealt with in Section IVA. In addition to maintenance work some progress was made with the construction of seaheads and drainage. A beginning was also made with the experimental spraying of the inside walls of houses with D.D.T. The number of deaths reported as due to malaria during the year was 424.

15. *Tuberculosis* is still one of the major causes of death in the colony, 6.9 per cent. of all deaths being attributed to this disease. The total number of new cases reported during the year was 587 and the total number of deaths 556. Most of the cases met with are pulmonary. Of 314 cases admitted to the Colony Hospital, Port-of-Spain in 1945, 89 per cent. were pulmonary or laryngeal.

No observations were made on the type of the *bacillus*.

In-patients have still to be accommodated in special wards in the general hospitals, but early in the year the foundation stone of a sanatorium was laid. This building, which will be capable of extension, is expected to be ready for occupation in 1947 and will provide :

4 eighteen-bedded general wards ; 8 four-bedded private rooms, 8 two-bedded private rooms and 8 single-bedded private rooms. Operating theatre with sterilising anaesthetic and preparation rooms annexed ; X-ray rooms, dental clinic, clinic for staff, dispensary. The plan of the building provides for two additional two-stories wings which can be added at any time. The wings will provide 120-128 beds, making a total provision of 248-256 beds.

16. The Tuberculosis Association—charitable body subsidised by Government, continues to provide a clinic and staff in Port-of-Spain and to give milk, cod liver oil and other forms of assistance to necessitous cases. The total number of attendances at the Association's clinic was as follows :—

New attendances	449
Old attendances	2,432
Total	2,881

17. *Typhoid* continues to be endemic. No serious outbreak took place during the year. The most extensive one, in relation to the population was in Tobago, where 45 cases were reported. Here the probable source was stagnant which is sometimes used, especially by children, for drinking even in places where there is a piped water supply available. The total number of cases reported during the year was 511 and the number of deaths 111.

18. *Venereal diseases* are now, for the most part, treated by the Venereal Diseases Control Division, though some are still treated in hospitals and health offices. One of the main features of the work in 1945 was the extent to which penicillin was used in treatment. The total number of cases treated in all institutions during the year is shown in the table below :—

TYPE OF DISEASE	TREATED BY		Total
	V.D. Division	Other Institutions	
Chancroid	137	...	137
Lymphogranuloma venereum	194	...	194
Gonorrhoea	3,111	303	3,414
Granuloma Inguinale	81	...	81
Syphilis	4,733	225	4,958
Other	26	...	26
Total	8,282	528	8,810

The work of the Venereal Diseases Division is dealt with more fully in Section IVa.

19. *Whooping Cough* outbreaks occur from time to time. The total number of cases reported during 1945 was 222.

20. *Yaws* continues to be a serious cause of invaliding. In Tobago, for example, it is estimated that about 40 per cent. of persons seeking public assistance suffer from disabilities attributable to, or complicated by, the late effects of yaws. The total number of cases reported for the year was 1,738.

Approval has been given to make provision in the 1946 estimates for a yaws control unit, consisting of two medical officers and two clerks with nursing and orderly staff seconded from other branches of the department. The unit, when formed, will be attached to the Venereal Diseases Control Division.

21. The special divisions and services consist of the Leprosy, Malaria and Venereal Diseases Control Divisions, and the Dental Service.

The Leprosy Division.

22. The treatment centres consist of a Leprosarium on the island of Chacachacare, and seven clinics on the mainland of Trinidad. Cases reported, or suspected to be leprosy, are examined at the clinics and, if found infective, are transferred to the Leprosarium unless (as very rarely happens) they can be satisfactorily isolated in their homes.

Non-infective cases are kept under observation and, in suitable cases, treatment, at the clinic.

Cases requiring observation are kept for a time at one of the clinics (Cocorite) which provides observation wards.

Examination of contacts is carried out on a limited scale by two field nurses.

Staffs :

Dr. Ernest Muir, Medical Superintendent of the Leprosarium, completed his tour of service on 31st January and was replaced by Dr. George Campbell. (The strength of the staff at the end of the year is shown in Table IV).

The *Leprosarium* at Chacachacare continues to present administration difficulties. It has been necessary to transport no less than 3,200 tons of water from Port-of-Spain during the year.

The *Surveys* carried out indicate that accommodation for 200 to 300 infective cases may be required in the near future and, as the existing accommodation is already somewhat overcrowded by its 388 inmates, an extension of the settlement which is on a hilly and rocky island, can only be done at great expense, and the question of making the extension on the mainland will have to be considered.

There is reason to believe that the sense of confinement engendered by compulsory residence on a small island is having an adverse effect on the morale of the patients. There are, nevertheless, certain improvements.

Additions to the diet and medication with yeast, promin and diazone, have combined to bring about a general state of improvement reflected in a better appearance of the skin, less tendency to ulceration, improvement in weight and more cheerful dispositions. So far as any specification of the yeast or of the drugs is concerned, it is yet too early to make any comment.

Vital Statistics :

Admissions, Deaths, Discharges.

Total number of patients in residence, 31st December, 1944	..	..	389
Number of new admissions during the year :			
Neural	..	..	31
Lepromatous	..	..	18
Non-lepromatous	..	..	5 54
Number of re-admissions during the year :			
Neural	..	..	20
Lepromatous	..	..	9 29
Number of discharges during the year :			
Neural	..	..	47
Lepromatous	..	..	2
Non lepromatous	..	..	5
Private segregation	..	..	1 55
Number of deaths during the year :			
Males	..	..	13
Females	..	..	16 29
Total number of patients in residence on 31st December, 1945	..	..	388
Estimated number of cases in the colony	..	..	1,500 to 1,800

Leprosy policy :

26. At present the law provides for the compulsory segregation of infective cases. A more comprehensive survey than is possible with the present staff would, it is believed, bring to light 50 per cent. or so more cases than are now on record. Any further attempt at stamping out the disease would therefore require much more accommodation and more attractive settlement conditions.

Towards the end of the year a committee was appointed to consider the financial and other implications of a comprehensive scheme of control. It is expected that this committee will report and make recommendations for a long term policy during 1946.

Malaria Division

27. The work of the joint programme of the Rockefeller Foundation and the Trinidad Government was continued under three heads, malaria studies, anopheline investigations and control measures.

There was no epidemic of malaria in any part of the colony during the year and in general there seems to have been an appreciable fall in malaria transmission.

The number of deaths reported from malaria in 1945 was 418, as against 472 in 1944.

Three thousand five hundred and twenty-six children were examined for splenomegaly and 1,425 slides taken for parasite examinations. Spleen rates in all areas where control measures were executed showed an appreciable fall.

The slide diagnostic service referred to in previous reports was continued and 18,899 slides were examined. The results of the examination were as follows :—

<i>P. falciparum</i>	..	..	..	3,872	(73.79% of positive cases)
<i>P. vivax</i>	..	..	..	1,164	(22.18% of positive cases)
<i>P. malariae</i>	..	..	..	190	(3.62% of positive cases)
Mixed infections	..	..	..	19	(.3% of positive cases)
Parasite not diagnosed	..	..	..	3	(.05% of positive cases)

Special treatment was carried out at 37 schools. Treatment centres were also operated in 26 field stations, mostly in Sangre Grande.

The malariologist reports as follows on field traps :

"Two important anophelines in the colony are *A. aquasalis* and *A. bellator*. *A. bellator* is not known to occur in the island of Tobago. Anopheline investigations were therefore largely confined to the study of the larvae and adults of the two mentioned species.

With *A. aquasalis* most of the adult studies were carried out by means of the Shannon Dawn trap. The Shannon Dawn trap is a two compartment structure bolted together, and was evolved by the late R. O. Shannon of the Rockefeller Foundation with the assistance of Mr. C. E. Newbold, former Anti-Malaria Engineer, Trinidad Government, and C.S.I. Jurawan of the Health Department, Trinidad Government. Its main purpose is to attract and trap the adult *A. aquasalis* during its flight in search for a blood meal. Previous observations had indicated that *A. aquasalis* was seemingly more zoophilic than androphilic; that it did not remain in houses but was actuated by an intense escape instinct in that may be termed a "pre-dawn activity"—that is where the first light of dawn was not visibly perceptible to an observer. It had also been noted that entry into houses occurred mainly in two invasion flights (1) between 6 and 8 p.m. and the other between 3 and 5 a.m. Having fed, the mosquitoes rest on the nearest convenient resting place and usually not above four feet from the ground.

In December, 1942, a two-compartment structure was built at El Socorro. This structure was divided into a stable compartment and a trap compartment. The stable compartment was 16' x 10' x 7' 6" and the trap compartment was 4' x 10' x 6". The structure was so situated that the trap compartment faced the east. Between the trap and the stable compartment there was a fixed entry panel in the lower part of the partition, 3 feet from the ground, the width of the opening to the trap being one inch to permit *A. aquasalis* to escape from the stable to the trap. On one side of the partition between the two compartments there was a small door to permit observers to move from one compartment to the other. The eastern wall of the trap compartment had in the centre a 1' 6" strip of 18 mesh screen wire and above and below the screen wire were two glass panels 1' 6" x 3'. The result was that the whole of the eastern wall of the trap compartment was freely accessible to light. In the stable compartment a door was fitted in the western end. On the northern and southern sides of this compartment and situated much nearer the western than the eastern end, two openings, 2' x 1½' were cut in the walls of the compartment, 2' below the plate. This experimental trap was first operated on Christmas morning, 1942, and it is interesting to recall the notes made at the time:

- 4.30 a.m. . . Stable compartment with hundreds of *A. aquasalis* resting quietly on the lower walls; a few not exceeding 20 in the trap compartment.
- 5.00 a.m. . . Dawn faintly perceptible; connection in the stable compartment; flying and buzzing increases, flight seems to be all directed towards the light.
- 5.30 a.m. . . Dawn light getting clearer; can just distinguish hand held up in front; connection in the stable still great. A large number of anophelines in trap compartment trying to pierce the screen and glass at eastern end.
- 6.00 a.m. . . Dawn light penetrates into stable. No more than a hundred anophelines in stable compartment. Eastern wall of trap covered with mosquitoes.
- 6.30 a.m. . . Daylight; quietness in both stable and trap compartments. Only 12 *aquasalis* recovered in stable compartment; 1,251 recovered in trap compartment.

This experiment was repeated on several occasions with similar results and from that day it may be said that the Shannon Dawn Trap was evolved. The trap as finally elaborated consists of a portable stable and trap compartment bolted together with a roof for the stable compartment.

Materials used in construction are ply-wood or plain sheet galvanize for the walls the cover being a wooden frame covered with plain sheet galvanize. The eastern end of the trap compartment is of 18 mesh mosquito screen reinforced with half inch galvanize chicken wire. The trap compartment is a single unit 3' 6" x 3' 6" x 6' with a 6" slope and having a small door on one side to permit a field assistant to enter. On the side to be attached to the stable compartment, 9" from the ground, is a rectangular opening 3' wide, 2' 6" high, 18" deep, into which is fitted a screen with a 12 entry to the trap. The top and bottom of this screen is covered with 18 mesh wire. The stable compartment is made up to three bolted walls with an easily removable one-piece hood. In operation the trap and the stable compartments are bolted together. The assembling of the whole unit does not take more than an hour. No floor is as a rule provided but if the trap is located in marshy ground, flooring planks can readily be made available.

The dimensions of the stable compartments are 4' x 6' x 8' 6". The hood is 5' wide x 9' long permitting a projection of 6" all around the stable compartment. The depth of this hood is such that it extends to 6" below the plate of the stable compartment, thereby permitting entry on all sides and at the same time excluding as much light as possible from the stable.

This trap has been the standard trap used in the colony but use has also been made of the Magoon trap and a modified Magoon or 'sampler' trap as we term it here.

The Magoon trap as used in Trinidad is a one compartment structure 6' 6" x 3' 4" x 6' 10" high, sloping 45°. A door is situated at one end through which bait is introduced and attendants enter and leave. The resultant escape of mosquitoes is therefore greater than in the Dawn trap. All sides of this structure are boarded up to a height of 3' 6" from the ground. At this point an entry is provided and on all sides there is a small opening made of wooden flaps; the outer width being 6", the internal width being 1" with a depth of 5". Above the entry 18 mesh wire is placed.

The 'Sampler' trap is also a one compartment trap of the same size as the Magoon trap with two important modifications.

1. A larger opening situated 4' 2" above the ground with the following dimensions:—
Outside opening 2'; inside opening 1" depth 1' 4". The depth of this opening is made of 18 mesh wire instead of wood.
2. A ventilation screen in the middle of the front side of the structure is 2' 6" x 18". The entire structure is completely boarded up except, of course, for the entry screen and the ventilation screen.

From May to October, 1945, a Magoon, a Sampler and a Shannon trap were operated side by side and the following capture figures for *A. aquasalis* are given:—

	May	June	July	August	September	October
Magoon	8,487	41,079	17,552	2,439	1,948	1,261
Sampler	11,924	17,454	15,811	—	6,634	2,743
Dawn	23,702	83,375	92,675	71,874	24,154	21,131

From these figures it seems that the efficiency of the Shannon Dawn trap against *A. aquasalis* is beyond question, but further experiments are continuing to certify same.

Larval surveys and experiments to determine the optimum breeding conditions of *A. aquasalis* were also undertaken.

Effective control measures were conducted at Cocorite, Piarco, Blanchisseuse, Maracas, County St. David and many areas.

Reports on the spraying with D.D.T. against *A. aquasalis* and with copper sulphate against *A. bellator* are attached as appendices to the report. The complete report of the Malariologist is being published separately.

Venereal Disease Control Division.

28. The Co-operative Venereal Diseases Control programme, complete with all sections as originally planned, was successfully established by Lt.-Colonel O. C. Wenger, United States Adviser on Venereal Diseases Control with the help of the combined United States and British Staff, and continued in operation throughout the year with sustained support from the general public.

The active participation of the United States ended June, 1945, with the cessation of the United States contribution to the cost of the programme and the withdrawal of the United States Public Health Service staff, except Miss Nelle Stancil, whose services were retained as director of the Nursing Service, with the approval of the United States Public Health Service.

The total United States Public Health Service staff in 1945 consisted of: The Director, Lt.-Colonel O. C. Wenger, six medical officers, 4 supervising nurses, one administrative assistant, two laboratory technicians and one dietitian.

On the departure of the U.S. Public Health Service staff, the programme was taken over by the Health Department and carried on by the staff recruited by the local government.

The shortage of qualified medical help was acute but was relieved somewhat by the addition to the staff, during the latter part of the year, of the director of the laboratory, two full-time contract medical officers, two part-time medical officers even though one full-time medical officer resigned and one part-time medical officer died during this period.

At the end of the year the staff consisted of:

Medical: The V.D. Specialist, Medical Officer in charge
The Director of Laboratory
2 contract medical officers
1 part-time medical officer.

Nursing: 1 Director of Nurses
6 Ward Sisters
20 Staff Nurses
5 Nurses' Aides
6 Medical Orderlies
1 Follow-up Worker.

Other: 53 officers including 1 radiographer-electrician, 2 X-ray technicians, 6 laboratory technicians, 1 accountant, 1 chief statistician, 1 assistant statistician, 1 secretary and a clerical staff of 16; 1 printer-technician, 1 housekeeper and 23 miscellaneous workers.

At the Caribbean Medical Centre, headquarters of the programme, in addition to the central administrative offices, central diagnostic clinic, hospital and laboratory, there were established:

A. The screening clinic at which a blood test for syphilis, a miniature X-ray of the chest and a physical inspection were offered to the general public free of charge. This relieved the congestion of the diagnostic clinic and was an effective means of finding cases of venereal disease as well as tuberculosis.

B. The epidemiological section to perform the important work of the investigation of contacts and follow-up of delinquents.

In addition to the six field clinics at Maraval, San Juan, Tacarigua, Arima, Sangre Grande and Chaguanas, three more were established during the year at Rio Claro, Princes Town and San Fernando.

The treatment with penicillin of syphilis and gonorrhoea was introduced, and full use was made of the accommodation of the rapid treatment hospital of 88 beds to which 2,656 patients were admitted during the period April to December, 1945.

The work of the Photofluorographic Unit was continued and 18,416 miniature X-ray films were taken:

The training of personnel employed by the Venereal Diseases programme was completed. A special tribute is due to the four senior nurses of the United States Public Health Service who were indefatigable in their efforts to train the local nurses and raise the efficiency of the nursing department to a maximum. The capability with which the local nurses carried out their assistance is evidence of their success and a just reward for their efforts.

The training of nurses and laboratory technicians, including candidates from St. Lucia, Dominica, Grenada, British Guiana and British Honduras was successfully undertaken.

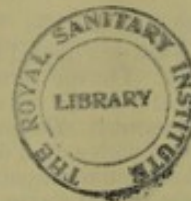
The education of the general public in the venereal diseases was continued by means of lectures, film shows and pamphlets; and specific education of the patients, with venereal disease was introduced. This consisted of personal interviews and daily film shows to the patients.

40,024 persons had their blood tests done for the first time. 25.8% were found to be positive.

28,732 persons applied to the clinics of the programme for attention. 9,764 new cases were put under treatment and included 1,482 cases of yaws. The clinics recorded a total attendance of 162,042—an average of 512 patients a day, six days a week, throughout the year. These numbers are unprecedented in the history of Venereal Diseases control in the Colony.

The Venereal Diseases Control Programme Clinical Activities, 1945.

Total Applicants..	..	..	..	..	..	28,732
Total New Venereal Diseases cases	..	..	..	..	..	8,282
Syphilis ..	..	..	..	..	4,733	
Gonorrhoea ..	..	..	..	..	3,111	
Chancroid ..	..	..	..	..	137	
Lymphogranuloma venereum ..	..	..	..	..	194	
Granuloma inguinale ..	..	..	..	..	81	
Other ..	..	..	..	..	26	
Total New Cases Yaws ..	..	..	..	..	..	1,482
Total Attendances ..	..	..	..	..	..	162,042



The Dental Service.

29. At the beginning of 1945 there were four part-time dental surgeons on the staff; they worked independently of each other and were not formed into a service.

In June, 1945, a senior dental surgeon was appointed and placed in charge of the dental service. The service as now organised, is primarily for the benefit of school children, but extractions are also undertaken for poor patients.

At the end of the year there was, in addition to the senior dental surgeon, two part-time surgeons in Port-of-Spain, one part-time surgeon in San Fernando, and one part-time surgeon in Tobago. This staff can deal only with a fraction of the children of school age, who number considerably over 120,000.

Work on Nutrition.

30. The nutrition work for the year fell under four heads:

- (i) Surveys
- (ii) Experimental
- (iii) Advisory
- (iv) Educational

(i) Survey:

This work was started by Dr. Vickers as a result of Dr. B. S. Platt's visit to the Colony at the end of 1944. The survey includes a clinical survey carried out by Dr. Abidh on some 2,000 school children, and a precise dietary survey carried out by four public health nurses under the instruction of the nutritionist. The object of the survey was to try to correlate some of the clinical signs of mal-nutrition with actual dietary deficiencies. The school children examined represented both the rural and urban communities and the different industries of the colony. The dietary survey followed the clinical survey, the families being chosen through children showing the largest number of signs of mal-nutrition. About 273 dietary histories were collected in 1945, which are still being analysed. The adults and children of the families taking part in the dietary survey have also been clinically examined.

(ii) Experimental:

(a) *Powdered skimmed milk.* A controlled skimmed milk feeding experiment was started in June 1945. One hundred children, random sample, were clinically examined, weighed and measured; fifty of these children were given 2 ozs. skimmed milk powder daily, and the other fifty kept as controls. Both groups were re-examined at regular intervals. After four months the clinical examination showed definite improvement in some of the skin conditions. It was therefore decided to extend the experiment, and at the same time to make a comparison of the effect of feeding fresh cows' milk and dried skimmed milk. All these experiments are continuing at the present time.

The families showing clinically advanced signs of mal-nutrition are also being given skimmed milk and the members are being kept under observation, and changes in the conditions recorded.

(iii) Advisory:

(a) New diet sheets have been drawn up for the Colonial Hospital, Port-of-Spain. These diets have been adapted for use at St. Ann's Mental Hospital and the House of Refuge.

(b) The catering at Chacachacare was investigated and recommendations made with regard to equipment, organisation, distribution of stores, &c.

(c) The diet at the orphanages and industrial homes were investigated, new diet scales laid down, and certain recommendations made.

(d) Advice was also given on the layout for the new kitchens of the Colonial Hospital, Port-of-Spain, the nurses' hostels, Port-of-Spain and San Fernando and the Tuberculosis Sanatorium.

(iv) Educational:

(a) Demonstrations:

Miss Horne, the cookery demonstrator, has carried out intensive cookery campaigns in Toco and Caroni; she has also continued her weekly classes at Tunapuna and Arima and has started an evening class for office workers in Port-of-Spain. In these demonstrations nutrition has been put over in a practical form, for instance, the correct cooking of vegetables, salad making, tomato bottling, the use of pulse vegetables, and the preparation of fresh fruit syrup have all been demonstrated repeatedly, and the food value of these foods stressed.

After leaving a district, new recipes have been sent to keep the interest alive. In all districts, Miss Horne has tried to make one of the women responsible for continuing the campaign.

SECTION V—HYGIENE AND SANITATION

1. Preventive Measures.

Mosquito and insect borne diseases:

31. *Aedes control* measures were maintained at the airports. The position in the larger town and in villages still continues to be unsatisfactory.

Anopheline control is dealt with in Section IVA.

Rabies Control:

No cases of human rabies were reported. The rabies unit consisting of ten inspectors and one attendant destroyed 902 *Desmodus rufus* bats in routine checks on known roosts and in new roosts discovered. No bats were found infected on examination.

2. General measures of sanitation

(a) *Water Supplies:*

32. The Central Water Distributing Authority deliver water of a satisfactory standard of purity in the areas served by them. The supply of the whole country, however, is not satisfactory, as many areas still depend on stored rain water, shallow wells and ponds. The whole island has been surveyed with a view to extensions of the existing mains and provision of satisfactory small local supplies. This work continued to be hampered by shortage of materials. Work continued on the new dam at Caura and wells were sunk by the Hydraulics Department at Valsayn and certain places in the south.

Extensions of the piped water supply were made at La Brea-Point Fortin, Diego Martin-Carenage, Mallick and the O'Meara Malabar districts.

The Central Board of Health reviewed the water supply of Port-of-Spain and recommended that the Maraval source of supply which is liable to gross pollution, be replaced as soon as possible by an alternative source.

(b) *Sewage control:*

There was nothing special to report. Extension of a water-borne system to the eastern section of Port-of-Spain depends on an increased water supply and materials.

The same applies to the Borough of San Fernando while the rapidly growing townships of San Juan, St. Joseph, and St. Augustine will in time need a water borne system. Numerous private septic tanks were built and the Planning and Housing Commission includes a water borne system in its housing scheme.

In rural areas 386 individual septic tanks were constructed. Much remains, however, to be done to improve the system of conservancy.

(c) Scavenging is still far from satisfactory in both rural and urban areas and, when the transport situation is easier it will be necessary to consider a reorganisation of most of the services.

3. School Hygiene.

33. The staff of school medical officers of health was further depleted by the resignation of Dr. Caroline Ramessar in April. The only other remaining school medical officer, Dr. Hoahing, continued to work in the southern division.

School medical inspection in the Colony was carried out in 33 schools—a total of 16,389 children being examined. Nurses' visits to homes of sick children numbered 373.

Owing to depleted staff, the school medical service is still very unsatisfactory. As in previous years, dental caries was very prevalent. There is need for the employment of more dentists and the development of conservative work in school children.

The infestation of school children with hookworm continues to be high in the rural areas. The campaign against this disease was continued—more talks were given to householders to use latrines and more intensive treatment carried out.

Meals for school children.

Hot mid-day meals were supplied through the Coterie of Social Workers and the St. Vincent de Paul Society to necessitous children in Port-of-Spain. In the Borough of San Fernando, the Coterie of Social Workers continues to perform a similar service. A hot meal service for children in most of the country schools was also begun.

The Education Department continued to provide pasteurised milk in Port-of-Spain and the area of compulsory education adjoining Port-of-Spain to undernourished children.

Work on a nutrition survey was continued. This included a clinical survey carried out by Dr. Abidh on some 2,000 school children and a precise dietary survey carried out by four public health nurses under the direction of the Nutritionist. The object of the survey was to try to correlate some of the clinical signs of mal-nutrition with actual dietary deficiencies. The school children examined represented both the rural and urban communities and the different industries of the Colony.

4. Measures taken to Spread the knowledge of Hygiene and Sanitation.

34. In schools this is achieved by means of special lectures by teachers, the institution of sanitary squads and special lectures given by school medical officers, sanitary inspectors and school and district nurses. In towns and villages it is carried out by means of talks by members of the hookworm unit and lectures by the malariologist and medical officers of health.

The medical staff of the department also lectures to classes of the Red Cross Society and other groups, on request. Health films are also shown. Talks were given to various groups of housewives. In County Caroni, Chaguanas and Charlie Village an appeal was made for voluntary workers who were subsequently instructed in measures for the prevention of hookworm, malaria, social diseases and the control of fly breeding.

The Health Education Officer returned from study leave towards the end of September. His services will be utilised in intensive propaganda in the villages where special campaigns are being undertaken under the direction of the Medical Officers of Health.

5. Labour Conditions.

35. Agriculturists still complain of the shortage of labour for work on the land. On the other hand, there appeared to be a growing number of unemployed in the city. Rehabilitation and re-settlement schemes were considered and advice given on the suitability of proposed settlements from the health point of view.

6. Housing.

36. The acute housing shortage continued particularly in the towns. The Planning and Housing Commission erected 745 new houses at Morvant, 402 were erected at Navet and Mon Repos while 20 new ones were built at Siparia.

Private enterprise.

The Local Health Authorities approved of 70 applications for the parcellation of land into building lots. 1,230 buildings were erected and many were repaired. 340 septic tanks were built. The shortage of essential building materials continued. A new brick factory was opened at Oropouche.

7. Food in relation to Health and Disease.

37. No major outbreak of food poisoning occurred during the year. There was a fair response to the "Grow More Food" campaign and ground vegetables were in fair supply. There was a shortage of rice and English potatoes were often not obtainable. No rationing system was in force but supplies were distributed to shopkeepers for retail consumption. The prices of foodstuffs were controlled but this did not prevent the development of "Black Market".

SECTION VI—PORT HEALTH WORK AND ADMINISTRATION.

38. During the year there was no case of infectious disease scheduled for quarantine purposes under the International Sanitary Convention.

Persons inspected on arrival numbered 30,506 of whom 2,396 were passengers and 28,110 crew. No persons were kept under surveillance.

Four hundred and sixty-six persons arriving from foreign parts, principally Venezuela, were vaccinated, as compared with 548 in 1944.

Nine vessels were fumigated for quarantine purposes as compared with three in 1944.

Nine deratization and 38 deratization exemption certificates were issued.

SECTION VII—MATERNITY AND CHILD WELFARE SERVICES.

39. The Colonial Hospitals, Port-of-Spain and San Fernando, possess maternity departments. Admissions to the Port-of-Spain Hospital were 2,631 with 1,796 deliveries while 275 women were delivered in their homes by the District Midwifery Department. In San Fernando, 1,543 cases were admitted to the Maternity Ward. Maternity cases are also admitted to the Colonial Hospital, Tobago, and the St. Joseph, Arima, Couva, Princes Town and Cedros District Hospitals.

Attendances at the ante natal clinic were as follows:

Colonial Hospital, Port-of-Spain	11,403
Colonial Hospital, San Fernando	3,695

The infantile mortality rate was 83.87 compared with 80.4 in 1944—an increase of 3.47.

SECTION VIII—HOSPITALS AND DISPENSARIES.

39. The Colony possesses three Government Colonial Hospitals, situated at Port-of-Spain, San Fernando and Scarborough, Tobago. There are six district hospitals and two emergency hospitals.

Colonial Hospitals:

At Port-of-Spain the senior nursing sister's new quarters were occupied; the new mortuary, the new out-patient administration and kitchen block and the nurses' hostel should be ready for use in 1946.

At San Fernando the nurses' hostel is being erected. The plan for the new Tobago hospital has been prepared.

The training of nurses, midwives and druggists was continued. The number of nurses who passed their examinations during the year were as follows:

	1st year	2nd year	3rd year	4th year	Midwifery
Port-of-Spain	30	16	13	16	19
San Fernando	14	14	10	15	5

The number of druggists under training during the year was as follows:

Port-of-Spain	6
San Fernando	3

Shortage of staff has made teaching difficult in the case of druggists as well as nurses.

The daily average of persons in institutions was as follows:

Port-of-Spain	460
San Fernando	335
Mental Hospital	986
House of Refuge	560
Scarborough	50
Leprosarium	392

Colonial Hospital, Port-of-Spain:

40. Twelve thousand nine hundred and sixty-three patients were admitted and a total of 913,391 patients treated in the wards during the year. Of these 12,003 were discharged and 971 died. The largest number of patients in hospital was 498 and the smallest number 419.

The attendance at the out-patient clinics were as follows :

	1943	1944	1945
Department of Radiology ..	7,049	6,900	10,149
Department of Physic therapy ..	8,459	9,086	7,934
Casualty department ..	13,120	14,319	13,324
Surgical clinic (male) ..	528	652	542
Surgical clinic (female) ..	246	335	331
Gynaecological clinic ..	1,856	1,624	473
Ear, nose and throat clinic ..	2,068	2,084	2,280
Ante natal clinic ..	9,837	12,666	11,405
Post natal clinic ..	1,206	2,019	2,371
Dental clinic ..	—	6,266	6,149
Urological clinic ..	600	730	262*

*The urological clinic was closed down for part of the year and this explains the low figure for the year.

In addition, a total of 410 patients were treated at the Diabetic out-patient clinic during the year.

Maternity department: This was well attended and the ward always overcrowded. One thousand seven hundred and ninety-six women were delivered in hospital and only 275 at their homes. There were 296 abortions and 210 operations were performed. There were 166 still births and 60 new born infants died in hospital. There were 35 cases of twins and two of triplets.

Massage and electrotherapy: 582 patients were treated. The number of massage treatments was 5,549, electrical 2,385 and ultra violet ray 62. The work had to be limited owing to shortage of staff and absence of the senior nursing sister.

Radiological Department: The work in this department continues to increase. Eight thousand three hundred and eight patients were radiographed, involving 15,232 exposures. One hundred and fifty-two patients (1,126 treatments) received X-ray therapy.

Dental department: Of 7,277 extractions done 3,426 were in children. Three hundred and eleven fillings were done in children. The demand for dental treatment continues to increase. The work must be limited according to the staff available and priority must be given to the children.

Dispensing Department: The training of students was very much handicapped by the shortage of staff. The time has arrived for establishing the training of dispensers on a sound basis, or in other words, establishing a school of dispensing with an authorised lecturer or lecturers and demonstrators.

The following is a summary of cases treated :

Operations	2,151
X-ray examinations	8,308
X-ray therapy	152
Maternity	2,631
Communicable diseases	1,266
Malignant diseases	155
General diseases	11,542

Colonial Hospital, San Fernando :

41. Eight thousand two hundred and seventy-nine patients were treated in the wards. Of these 7,358 were discharged and 607 died. The largest daily number in hospital was 386 and the smallest 279.

Maternity Department: As in Port-of-Spain the ward was always overcrowded. One thousand five hundred and forty-three patients were admitted to the wards. Five hundred and four women were delivered in hospital. There were 28 operations. Seventy-nine infants were still born.

The following is a summary of the cases treated :

Operations	2,098
Maternity	1,543
Communicable diseases	1,104
Malignant diseases	97
General diseases	5,527

Colonial Hospital, Tobago :

42. The chief diseases treated were :

Disease	No. treated	Deaths.
Malaria	102	5
Tuberculosis	29	4
Yaws	35	0
Syphilis	27	1
Gonorrhoea	24	0
Heart disease	23	2
Pneumonia	58	5
Nephritis	28	0

The total number of cases treated was 1,643. Of these 51 died. The daily average number of patients was 50. The largest number in hospital on any day was 61 and the smallest 36.

43. The following operations were performed at the Colonial Hospitals, Port-of-Spain and San Fernando.

	<i>Port-of-Spain</i>	<i>San Fernando</i>
General	1,305	1,191
Gynaecological	241	254
Urological	129	114
Ear, nose and throat	256	316
Obstetrical	220	28
Ophthalmological	—	195
	<hr/> 2,151	<hr/> 2,098

St. Ann's Mental Hospital.

44. The general accommodation of this hospital continued to be inadequate as for years past. The average number of patients resident was 986, being 54 more than the previous year. The hospital properly accommodates about 700.

The main buildings were in good condition generally. A new and large workshop was completed and work on a new laundry and isolation ward far advanced. About four acres of land was cultivated for vegetables.

The water supply was satisfactory throughout the year. The main sewer again gave trouble during the year, difficult chokes occurring leading to sewage overflowing on the grounds.

The dietary is ample but lacks variety. It is also possible that there is a lack of vitamins. Revision of the dietary to improve both these matters was proceeding at the year's end. There are no gross signs of vitamin lack in the patients but minor degrees of Vitamin B1 and B2 deficiency appear. All patients are weighed monthly. The great majority gain weight. Each case of loss of weight is considered to arrive at the cause.

The institution was overcrowded as usual during the year, the average number of patients resident being 986. There were 123 patients over the age of 60. Pulmonary tuberculosis caused 31 deaths compared with nine in 1944 and 24 in 1943.

Both bacillary and amoebic dysentery occur in the institution, five deaths were due to dysentery as against nine in the previous year. Two deaths were attributed to colitis.

One thousand three hundred and ten persons came under care during the year, being 78 more than last year. One hundred and eleven deaths occurred compared with 85 in 1944 and 160 in 1943.

Three hundred and forty-three persons were admitted during the year. Voluntary admissions were 12, temporary treatment certificates 21, certified insane by a magistrate 308, criminal lunatics 2.

Confusional states accounted for 89 admissions. Various forms of mania and melancholia accounted for 67; 57 cases were schizophrenic and secondary and senile dementia caused 41 admissions.

One hundred and sixty-five persons recovered and were discharged during the year. Fifty-six admissions had previously been admitted to the institution one or more times.

Electric shock therapy was started in the last quarter of the year. Twenty-nine cases were treated, of whom nine recovered and were discharged, ten showed marked improvement and 10 showed no improvement. This treatment holds much promise for selected cases.

Two cases were also successfully treated by the induction of artificial fever with the electric hypertherm.

SECTION IX—LABORATORY SERVICES.

45. The following is an abstract from the report of the Senior Pathologist :—

Routine examination :

A total of six thousand, three hundred and fifty-four specimens were received and six thousand, six hundred and twenty-five examinations done. In addition, one thousand, one hundred and sixty-seven samples of water, collected from various parts of the colony were examined. Forty thousand and seventy-five c.c. doses of vaccine were prepared and issued during the year under review.

Six hundred and ninety-seven bats were also examined for negri bodies. Fourteen thousand, nine hundred and twenty-four rats were examined naked eye, for evidence of plague. The nature of some specimens is here given.

	<i>Positive</i>	<i>Negative</i>	<i>Total</i>
Sputum for Tuberculosis ..	56	437	493
Swabs for Diphtheria ..	28	145	173
Blood for agglutination against <i>B. typhosus</i> ..	328	669	997

Syphilis :

Four thousand one hundred and twenty-one samples of blood were submitted to the Kahn test. One thousand and eighty-six were positive and three thousand and thirty-five were negative.

Three hundred and thirty-two samples of blood were submitted to the Kline test. One hundred and nineteen were positive and two hundred and thirteen were negative.

Ankylostomiasis :

Six hundred and ten samples of faeces were examined for ova of hookworm. One hundred and twenty-one were positive and four hundred and eighty-six were negative.

Amoeba histolytica :

Three hundred and seventy-two samples of faeces were examined for amoeba. Sixty-nine were positive and three hundred and three were negative.

Gonorrhoea :

Seven hundred and forty-seven specimens of urethral and prostatic discharges were submitted to smear or culture for the detection of gonorrhoea. One hundred and sixty were positive and six hundred and eighty-seven were negative.

Leprosy :

Eleven scrapings from skin lesions and nose swabs were examined for *B. leprae*, all were negative.

Complete Blood Counts :

Three hundred and seventy-seven complete blood counts were done.

Blood :

Thirteen samples of blood were examined for erythrocyte sedimentation rate.

Partial and differential counts :

One hundred and forty-six partial and differential counts were done.

B. typhosus in faeces :

One hundred and ninety-six samples of faeces were plated to detect the presence of *B. typhosus*. Ten were positive and one hundred and eighty-six were negative.

Bacillary dysentery :

One hundred and nineteen samples of faeces were plated for *B. dysenteriae*. Seventeen were positive and one hundred and two were negative.

Biochemical Examinations*Blood* :

One hundred and fifty-six samples of blood were sent for the percentage of urea to be estimated.

Percentage of glucose was estimated in one hundred and fifty-six samples of blood.

Cholesterol was estimated in sixteen samples of blood.

Plasma proteins were estimated in twenty-six samples of blood.

Three hundred and twenty-one samples of blood and urine were sent or collected and glucose tolerance tests were performed.

Gastric Juice :

Fractional test meals were done on 344 serial samples of gastric juice.

Cerebro-spinal fluid :

One hundred and sixty-one samples of cerebro-spinal fluid were examined.

Fifty-two samples of blood were sent and the Van den Berg test was performed. Sixteen were negative and 34 were positive.

Blood calcium was estimated in five samples of blood.

Sections :

One hundred sections (histological) were sent to be examined.

Urine :

Two hundred and eight samples of urine were examined completely and three hundred and eleven were sent for partial examination.

The Freidman modification of Aschiem Zondek test was done on sixty-six samples of urine. Thirty were positive and thirty-six were negative.

Faeces :

Seventy-four samples of faeces were examined for occult blood. Fifty-one were negative and twenty-three were positive.

Semen :

One specimen of seminal fluid was examined to determine fertility.

Basal metabolic rate :

One basal metabolic rate was determined.

Blood : One hippuric liver function test was done.

Faeces : One hundred and eighty specimens of faeces were examined for protozoa and ova, none showed any protozoa.

Acid and alkaline phosphatase estimation was done on two samples of blood.

Rats Examined

The number of rats examined, naked-eye for evidence of plague totalled fourteen thousand nine hundred and twenty-four, as here shown :

		<i>Decamanus</i>	<i>Rattus</i>	Total
Males	..	4,453	2,228	6,681
Females	..	5,181	3,062	8,243
Total :	..	9,634	5,290	14,924

Summary of Bats caught and examined for Negri Bodies.

Desmodus	471
Artibeus	140
Hermiderna	49
Mollosus	4
Total	664
Total number found with negri bodies	Nil.

Vaccine

A total of forty thousand and seventy-five c.c. doses were prepared and issued during the year under review.

1. *Typhoid vaccine*:—Thirty-five thousand two hundred c.c. doses were prepared and issued for use throughout the colony and other West Indian Islands.

2. *Gonococcal*:—Four thousand two hundred c.c. doses were prepared and issued to Government Medical Officers and private practitioners.

3. *Anti-rabies vaccine*:—Two hundred and twenty-five c.c. doses were prepared for human use as a prophylactic in the anti-rabies campaign.

4. *Other vaccines*:—Four hundred and fifty c.c. doses of autogenous vaccine from various sources were also prepared and issued.

Water Samples.

There was a total of one thousand one hundred and sixty seven samples of water examined from the city of Port-of-Spain and rural districts. Of this number one hundred and eighty-one were condemned as unsafe for human consumption.

The practice of examining daily a 100 c.c. sample of the mixed water supplies of Port-of-Spain for fermentation reaction was continued throughout the year.

TABLE I.

Principal causes of deaths for the years 1944 and 1945.

	1944	1945
Diseases of early infancy	920	937
Old Age	469	575
Diarrhoea and enteritis	517	413
Cardiac and valvular diseases	751	568
Malaria	472	424
Pulmonary tuberculosis	552	556
Nephritis	401	402
Bronchitis	287	372
Cerebral haemorrhage and apoplexy	257	274
Broncho pneumonia	210	250
Lobar pneumonia	130	130
Pneumonia (not otherwise defined)	95	75
Cancer	249	229
Enteric fever	92	111
Syphilis	112	78
Diseases of the puerperal state	133	122
Dysentery	56	47
Ankylostomiasis	72	67
Infantile convulsions	36	41
Influenza	7	14
Other causes	2,236	2,274
	8,054	7,959

TABLE II.

Prevalence of notifiable infectious diseases during 1944 and 1945.

	1944	1945
Enteric fever	473	511
Pneumonia	632	580
Pulmonary tuberculosis	518	381
Tuberculosis (other forms)	40	17
Diphtheria	35	25
Ophthalmia neonatorum	161	79
Chicken Pox	118	254
Acute Anterior Poliomyelitis	4	9
Puerperal Pyrexia	24	38
Cerebro-spinal fever	2	2
Encephalitis	—	2

Other Communicable Diseases (Non-notifiable)

Malaria	12,356	9,455
Dysentery	658	484
Influenza	1,912	2,530
Ankylostomiasis	5,202	9,437
Whooping Cough	85	222
Measles	25	25

TABLE III.
General diseases treated in hospitals, 1944 and 1945.

	1944		1945	
	<i>Admissions</i>	<i>Deaths</i>	<i>Admissions</i>	<i>Deaths</i>
I. Epidemic, endemic and infectious diseases	2,971	435	3,220	442
II. General diseases not mentioned above :				
Cancer	199	48	266	60
Tumors (non malignant)	56	6	79	—
Rheumatism	83	2	114	4
Deficiency diseases	79	9	65	13
Diabetes	194	37	266	32
Anaemias	118	23	98	7
Diseases of ductless glands	66	3	29	2
Alcoholism	39	—	15	—
Poisoning	9	—	12	1
Other general diseases	92	6	70	9
III. Affections of the nervous system	1,568	110	1,733	126
IV. Affections of the circulatory system	847	213	911	207
V. Affections of the respiratory system	1,316	138	1,172	154
VI. Affections of the digestive system	2,449	144	2,834	130
VII. Affections of the genito-urinary system (non venereal)	3,644	100	3,972	126
VIII. Puerperal affections	4,729	93	4,413	83
IX. Diseases of the skin and cellular tissues	920	22	1,573	40
X. Diseases of the bones and organs of locomotion (other than tuberculosis)	235	3	264	9
XI. Malformations	28	2	41	2
XII. Diseases of infancy	609	173	1,012	184
XIII. Affections of old age	146	48	209	52
XIV. Affections produced by external causes	2,112	85	3,156	52
XV. Ill-defined diseases and unspecified causes	378	7	483	66
XVI. Diseases the total of which has not exceeded 10 deaths	82	4	80	1
	<u>23,029</u>	<u>1,711</u>	<u>26,067</u>	<u>1,802</u>

TABLE IV.

Showing conditions for which patients were admitted to the Mental Hospital in 1944 and 1945.

	1944		1945	
Acute mania	9	6		
Mania	43	44		
Manic depressive	5	5		
Melancholia and states of depression	16	9		
Involitional melancholia	1	2		
Agitated melancholia	3	1		
Confusional insanity	83	99		
Schizophrenia	53	57		
Hebephrenia	—	1		
Delusional	37	32		
Paranoia	—	2		
Epilepsy	5	8		
Puerperal insanity	—	5		
General paralysis of the insane	2	5		
Cerebral syphilis	4	6		
Alcoholism	13	8		
Korsakoff's psychosis	—	1		
Secondary dementia	40	29		
Senile dementia	15	12		
Mental defect	9	4		
Hysteria	2	8		
Anxiety neurosis	1	1		
Obsessional neurosis	—	2		
Neurasthenia	1	2		
Not insane	3	3		
Undiagnosed	—	1		
Total	<u>345</u>	<u>343</u>		

TABLE V.

Showing causes of deaths of patients dying in the Mental Hospital during 1945.

<i>Notifiable Infectious Diseases :</i>		
Pulmonary tuberculosis	31	
Pneumonia (all forms)	7	
Enteric fever	2	
<i>Non-notifiable infectious diseases :</i>		
Dysentery	5	
Syphilis	8	
<i>Other diseases :</i>		
Cardiac vascular disease	20	
Pulmonary embolism	1	
Pulmonary abscess	2	
Acute nephritis	1	
Colitis	2	
Volvulus	1	
Haemolytic jaundice	1	
Toxaemia and exhaustion	17	
Cerebral thrombosis	1	
Cerebral haemorrhage	1	
Gangrene	3	
General paralysis of the insane	1	
Cancer	1	
Anaemia	1	
Status Epilepticus	4	

TABLE VI
Summary of Staff.

Staff	Establishment 1945	Strength 31.12.44	Strength 31.12.45
<i>Medical</i>			
Director of Medical Services ...	1	1	1
Deputy Director of Medical Services ...	1	—	—
Deputy Director of Sanitary Services ...	1	1	1
Medical Officers—Grade A ...	18	18	18
Grade B ...	11	6	6
Grade C ...	20	7	7
Grade D ...	2	—	—
Part-time Medical Officers ...	5	5	5
District Medical Officers ...	21	20	20
<i>Nurses and Welfare</i>			
Matrons ...	5	5	5
Assistant Matrons ...	4	2	1
Sister Tutors ...	2	1	1
Senior Nursing Sisters Grade I ...	4	1	1
Senior Nursing Sisters Grade II... ..	13	5	5
Ward Sisters ...	45	28	30
Senior Charge Nurses ...	9	9	9
Charge nurses ...	27	23	27
Nurses ...	173	96	96
Artisan nurses ...	17	11	10
Student nurses ...	278	267	269
Health Visitors ...	63	45	56
<i>Stewards and Dispensers.</i>			
Stewards ...	3	3	3
Dispenser-Stewards ...	8	8	8
Dispensers and Dispenser-Clerks ...	51	44	46
Dispensing students ...	12	7	9
<i>Technical Staff</i>			
Electrician-Radiographer ...	1	1	1
Radiographers ...	2	2	2
Senior Scientific Assistant ...	1	1	1
Scientific Assistants ...	25	23	22
Optician (part-time) ...	1	—	1
<i>Special Officers.</i>			
Nutrition Officer ...	1	—	1
Health Education Officer ...	1	1	1
Supervisor, Medical Stores and Dispensaries ...	1	1	1
Superintendent, Infant Welfare and Maternity Services ...	1	1	—
Assistant Superintendent, Infant Welfare and Maternity Services ...	1	—	—
<i>Medico-Social Branch.</i>			
Almoner ...	1	—	—
Administrative and Social Welfare Officer, Chacachacare ...	1	1	1
Attendance Officer ...	1	1	1
<i>Dental Service</i>			
Dental Surgeons ...	2	—	1
Part-time Dental Surgeons ...	4	4	4
<i>Sanitary Inspectors</i>			
Chief Sanitary Inspectors ...	4	4	4
Sanitary Inspectors ...	59	53	57
<i>General Duty Staff</i>			
(i) Hospitals... ..	282	260	272
(ii) General ...	108	106	107
Telephone Operators ...	10	5	5
Chauffeurs ...	18	18	18
<i>Clerical Establishment.</i>			
Principal Officer ...	—	—	—
Accountant ...	1	1	1
Senior Clerk ...	1	1	1
1st Class Clerks ...	10	9	10
2nd Class Clerks ...	40	32	40
Non-Establishment Clerks ...	13	12	13

Table VIa.

Distribution of Staff
Headquarters.

Staff	Establishment 1945	Strength 31.12.44	Strength 31.12.45
Director of Medical Services ...	1	1	1
Deputy Director of Medical Services ...	1	—	—
Deputy Director Sanitary Services ...	1	1	1
Veneral Diseases Specialist ...	1	1	1
Relieving Medical Officers ...	12	—	—
Accountant ...	1	1	1
Senior Clerk ...	1	1	1
1st Class Clerks ...	3	3	3
2nd Class Clerks ...	9	6	9
Messengers ...	3	2	3
<i>Medical Stores</i>			
Supervisor of Medical Stores and Dispensaries ...	1	—	1
Dispensers ...	6	5	6
Assistant Dispensers ...	2	2	2
Messengers ...	2	2	2

Colonial Hospital, Port-of-Spain.

Staff	Establishment 1945	Strength 31.12.44	Strength 31.12.45
Medical Superintendent (Grade A)	1	1	1
Medical Officer Grade A	5	5	5
Grade B	2	2	2
Grade C	6	3	2
Grade D	2	—	—
Radiologist Grade A	1	1	1
Contract Medical Officer Grade A	1	1	1
Ophthalmic Surgeon (part-time)	1	1	1
Clerical establishment :			
1st Class Clerk	1	1	1
2nd Class Clerks	9	6	8
Almoner	1	—	—
Attendance Officer	1	1	1
Steward	1	1	1
Dispenser Grade A	1	1	1
Grade B	6	4	5
Student Dispensers	8	4	6
Matron	1	1	1
Assistant Matron	1	1	—
Sister Tutor	1	1	1
Senior Nursing Sister Grade I	3	1	1
Senior Nursing Sister Grade II	7	4	4
Ward Sister	21	14	17
Staff Nurse	70	60	60
Student Nurse	136	150	154
Electrician Radiographer	1	1	1
Radiographer	1	—	—
Scientific X-ray Assistant	5	2	15
Chauffeur	3	2	3
Optician (part-time)	1	—	1
Telephone Operators	4	4	4
General duty staff	107	102	113

Colonial Hospital, San Fernando.

Medical Officers Grade A	3	3	3
Grade B	—	—	—
Grade C	4	4	4
Clerical Establishment :			
1st Class Clerk	1	1	1
2nd Class Clerk	4	4	4
Dispensers	4	3	3
Student Dispensers	4	3	3
Matron	1	1	1
Assistant Matron	1	1	—
Senior Nursing Sister Grade II	5	1	1
Senior Nursing Sister Grade I	5	—	—
Ward Sisters	18	10	8
Staff Nurses	29	8	8
Student Nurses	90	110	108
Radiographer	1	1	—
Scientific Assistant (X-ray)	1	1	—
Chauffeur	3	3	2
General Duty Staff	89	75	77
Telephone operators	3	—	—

Colonial Hospital, Tobago.

Resident Surgeon	1	1	1
Dispenser Steward	1	1	1
Matron	1	1	1
Ward Sisters	2	2	1
Staff Nurses	6	5	4
Student Nurses	7	7	7
Laundresses	5	5	4
Wardmaids	3	3	3
Seamstress	1	1	1
Attendants	4	4	4
Issuer	1	1	1
Cooks	2	2	2
Chauffeur	1	1	1

Leper Settlement, Chacachacare.

Medical Superintendent	1	1	1
Administrative and Social Welfare Officer	1	1	1
Dispenser-Steward	2	1	1
Dispenser-Clerk	1	1	1
Secretary-Steward	—	—	1
Matron	1	1	1
Assistant Matron	1	—	1
Senior Charge Nurses	5	2	5
Nurses	15	15	15
Charge Nurses	—	4	—
Chauffeur	1	1	1
Leprosy Survey Assistant	1	1	1
General Duty Staff	29	29	29
Scientific Assistant	1	1	1

Mental Hospital.					Establishment	Strength	Strength
Staff					1945	31.12.44	31.12.45
Medical Superintendent	...	...	...	...	1	1	1
Medical Officer Grade C	...	...	...	...	1	1	1
Clerical Establishment :							
1st Class Clerk	...	...	...	...	1	1	1
2nd Class Clerk	...	...	...	...	1	1	1
Telephone operators	...	...	...	...	2	—	—
Dispenser	...	...	...	...	1	1	1
Steward	...	...	...	...	1	1	1
Matron	...	...	...	...	1	1	1
Assistant Matron	...	...	...	...	1	—	—
Senior Charge Nurses	...	...	...	...	4	4	4
Charge Nurses	...	...	...	...	27	23	27
Nurses	...	...	...	...	158	127	128
Artisan Nurses	...	...	...	...	17	11	10
Student Nurses	...	...	...	...	45	43	32
Head Attendants	...	...	...	...	2	1	1
Issuer	...	...	...	...	1	1	1
Chauffeur	...	...	...	...	1	1	—

Malaria Division.					Establishment	Strength	Strength
Malariaologist	...	...	...	...	1	1	1
Clerical Establishment :							
1st Class Clerk	...	...	...	...	1	1	1
2nd Class Clerk	...	...	...	...	2	1	1
Dispenser	...	...	...	...	1	1	1
Chief Sanitary Inspector	...	...	...	...	1	1	1
Sanitary Inspectors	...	...	...	...	3	3	3
Senior Field Inspectors	...	...	...	...	2	2	2
Field Assistants	...	...	...	...	9	9	9
Scientific Assistants	...	...	...	...	4	4	4
Messenger	...	...	...	...	1	1	1
Extra Attendants	...	...	...	...	13	13	13

Bacteriological Laboratory					Establishment	Strength	Strength
Senior Pathologist	...	...	...	...	1	1	1
Pathologist	...	...	...	...	2	—	1
Clerical Establishment :							
1st Class Clerk	...	...	...	...	1	—	—
Scientific Assistants	...	...	...	...	10	9	8
Senior Scientific Assistant	...	...	...	...	1	1	1
Female Attendant	...	...	...	...	1	—	—
Office Attendant	...	...	...	...	1	1	1
Messenger Establishment	...	...	...	...	3	3	3

DISTRICT SERVICES

A.—NORTHERN DIVISION

1. Divisional Health Office

Staff					Establishment	Strength	Strength
					1945	31.12.44	31.12.45
Senior Medical Officer of Health	...	...	...	...	1	1	1
Divisional Sanitary Inspector	...	...	...	...	1	1	1
Clerical Establishment :							
1st Class Clerk	...	...	...	...	1	1	1
2nd Class Clerks	...	...	...	...	3	3	3
Non-Establishment Clerk	...	...	...	...	1	1	1
Dispenser-Clerk	...	...	...	...	1	1	1
Messengers	...	...	...	...	2	2	2

2. County St. George

Medical Officer of Health	...	...	...	...	1	1	—
District Medical Officers	...	...	...	...	8	8	7
Sanitary Inspectors	...	...	...	...	20	14	20
Health Visitors	...	...	...	...	30	21	28
Dispenser-Stewards	...	...	...	...	3	3	3
Dispenser-Clerks	...	...	...	...	3	1	2
Ward Sisters	...	...	...	...	2	—	2
Staff Nurses	...	...	...	...	12	12	11
General Duty Staff	...	...	...	...	20	19	19

3. County St. David-St. Andrew.

District Medical Officers	...	...	...	...	2	2	2
Sanitary Inspectors	...	...	...	...	4	4	3
Health Visitors	...	...	...	...	4	4	4
Dispenser	...	...	...	...	1	1	1
Staff Nurse	...	...	...	...	1	1	1
Cook	...	...	...	...	1	1	1

4. Ward of Tobago

District Medical Officers	...	...	...	...	3	3	3
Sanitary Inspectors	...	...	...	...	3	5	5
Health Visitors	...	...	...	...	3	2	3

B. SOUTHERN DIVISION

Staff				Establish- ment 1945	Strength 31.12.44	Strength 31.12.45
1. Divisional Health Office						
Senior Medical Officer of Health	...	...	...	1	1	1
Divisional Sanitary Inspector	...	...	...	1	1	1
Clerical Establishment :						
1st Class Clerks	...	...	...	1	1	1
2nd Class Clerks	...	...	...	3	3	3
Non-Establishment Clerks	...	...	...	1	1	1
Messengers	...	...	...	3	3	3
2. County Caroni						
Medical Officer of Health	...	...	...	1	—	—
District Medical Officers	...	...	...	3	3	3
Dispenser-Clerks	...	...	...	1	—	—
Sanitary Inspectors	...	...	...	5	5	4
Health Visitors	...	...	...	6	6	6
Dispenser-Steward	...	...	...	6	1	1
Dispenser-Clerk	...	...	...	1	1	1
Ward Sisters	...	...	...	2	1	1
Staff Nurses	...	...	...	5	5	5
General Duty Staff	...	...	...	9	8	8
3. County Victoria						
Medical Officer of Health	...	...	...	2	1	1
District Medical Officers	...	...	...	3	3	3
Dispenser-Clerk	...	...	...	1	1	1
Dispenser-Steward	...	...	...	1	1	1
Ward Sister	...	...	...	1	—	1
Staff Nurses	...	...	...	5	4	4
General Duty Staff	...	...	...	8	8	8
Sanitary Inspectors	...	...	...	14	13	14
Health Visitors	...	...	...	12	7	9
Meat Inspector	...	...	...	1	1	1
4. County St. Patrick						
Medical Officer of Health	...	...	...	1	1	—
District Medical Officers	...	...	...	3	3	3
Sanitary Inspectors	...	...	...	7	7	7
Dispenser-Clerk	...	...	...	1	1	1
Health Visitors	...	...	...	6	5	6
Dispenser	...	...	...	1	1	1
Staff Nurses	...	...	...	2	2	2
General Duty Staff	...	...	...	3	3	3
5. County Nariva-Mayaro						
District Medical Officer	...	...	...	1	1	1
Sanitary Inspectors	...	...	...	2	1	1
Health Visitors	...	...	...	2	2	2
Dispenser	...	...	...	1	1	1
Staff Nurse	...	...	...	1	1	1
General Duty Staff	...	...	...	2	2	2

STATE OF NEW YORK

J. Thompson, State Clerk		J. Thompson, State Clerk	
1890	1891	1890	1891
1892	1893	1892	1893
1894	1895	1894	1895
1896	1897	1896	1897
1898	1899	1898	1899
1900	1901	1900	1901
1902	1903	1902	1903
1904	1905	1904	1905
1906	1907	1906	1907
1908	1909	1908	1909
1910	1911	1910	1911
1912	1913	1912	1913
1914	1915	1914	1915
1916	1917	1916	1917
1918	1919	1918	1919
1920	1921	1920	1921
1922	1923	1922	1923
1924	1925	1924	1925
1926	1927	1926	1927
1928	1929	1928	1929
1930	1931	1930	1931
1932	1933	1932	1933
1934	1935	1934	1935
1936	1937	1936	1937
1938	1939	1938	1939
1940	1941	1940	1941
1942	1943	1942	1943
1944	1945	1944	1945
1946	1947	1946	1947
1948	1949	1948	1949
1950	1951	1950	1951
1952	1953	1952	1953
1954	1955	1954	1955
1956	1957	1956	1957
1958	1959	1958	1959
1960	1961	1960	1961
1962	1963	1962	1963
1964	1965	1964	1965
1966	1967	1966	1967
1968	1969	1968	1969
1970	1971	1970	1971
1972	1973	1972	1973
1974	1975	1974	1975
1976	1977	1976	1977
1978	1979	1978	1979
1980	1981	1980	1981
1982	1983	1982	1983
1984	1985	1984	1985
1986	1987	1986	1987
1988	1989	1988	1989
1990	1991	1990	1991
1992	1993	1992	1993
1994	1995	1994	1995
1996	1997	1996	1997
1998	1999	1998	1999
2000	2001	2000	2001
2002	2003	2002	2003
2004	2005	2004	2005
2006	2007	2006	2007
2008	2009	2008	2009
2010	2011	2010	2011
2012	2013	2012	2013
2014	2015	2014	2015
2016	2017	2016	2017
2018	2019	2018	2019
2020	2021	2020	2021
2022	2023	2022	2023
2024	2025	2024	2025
2026	2027	2026	2027
2028	2029	2028	2029
2030	2031	2030	2031
2032	2033	2032	2033
2034	2035	2034	2035
2036	2037	2036	2037
2038	2039	2038	2039
2040	2041	2040	2041
2042	2043	2042	2043
2044	2045	2044	2045
2046	2047	2046	2047
2048	2049	2048	2049
2050	2051	2050	2051
2052	2053	2052	2053
2054	2055	2054	2055
2056	2057	2056	2057
2058	2059	2058	2059
2060	2061	2060	2061
2062	2063	2062	2063
2064	2065	2064	2065
2066	2067	2066	2067
2068	2069	2068	2069
2070	2071	2070	2071
2072	2073	2072	2073
2074	2075	2074	2075
2076	2077	2076	2077
2078	2079	2078	2079
2080	2081	2080	2081
2082	2083	2082	2083
2084	2085	2084	2085
2086	2087	2086	2087
2088	2089	2088	2089
2090	2091	2090	2091
2092	2093	2092	2093
2094	2095	2094	2095
2096	2097	2096	2097
2098	2099	2098	2099
2100	2101	2100	2101
2102	2103	2102	2103
2104	2105	2104	2105
2106	2107	2106	2107
2108	2109	2108	2109
2110	2111	2110	2111
2112	2113	2112	2113
2114	2115	2114	2115
2116	2117	2116	2117
2118	2119	2118	2119
2120	2121	2120	2121
2122	2123	2122	2123
2124	2125	2124	2125
2126	2127	2126	2127
2128	2129	2128	2129
2130	2131	2130	2131
2132	2133	2132	2133
2134	2135	2134	2135
2136	2137	2136	2137
2138	2139	2138	2139
2140	2141	2140	2141
2142	2143	2142	2143
2144	2145	2144	2145
2146	2147	2146	2147
2148	2149	2148	2149
2150	2151	2150	2151
2152	2153	2152	2153
2154	2155	2154	2155
2156	2157	2156	2157
2158	2159	2158	2159
2160	2161	2160	2161
2162	2163	2162	2163
2164	2165	2164	2165
2166	2167	2166	2167
2168	2169	2168	2169
2170	2171	2170	2171
2172	2173	2172	2173
2174	2175	2174	2175
2176	2177	2176	2177
2178	2179	2178	2179
2180	2181	2180	2181
2182	2183	2182	2183
2184	2185	2184	2185
2186	2187	2186	2187
2188	2189	2188	2189
2190	2191	2190	2191
2192	2193	2192	2193
2194	2195	2194	2195
2196	2197	2196	2197
2198	2199	2198	2199
2200	2201	2200	2201
2202	2203	2202	2203
2204	2205	2204	2205
2206	2207	2206	2207
2208	2209	2208	2209
2210	2211	2210	2211
2212	2213	2212	2213
2214	2215	2214	2215
2216	2217	2216	2217
2218	2219	2218	2219
2220	2221	2220	2221
2222	2223	2222	2223
2224	2225	2224	2225
2226	2227	2226	2227
2228	2229	2228	2229
2230	2231	2230	2231
2232	2233	2232	2233
2234	2235	2234	2235
2236	2237	2236	2237
2238	2239	2238	2239
2240	2241	2240	2241
2242	2243	2242	2243
2244	2245	2244	2245
2246	2247	2246	2247
2248	2249	2248	2249
2250	2251	2250	2251
2252	2253	2252	2253
2254	2255	2254	2255
2256	2257	2256	2257
2258	2259	2258	2259
2260	2261	2260	2261
2262	2263	2262	2263
2264	2265	2264	2265
2266	2267	2266	2267
2268	2269	2268	2269
2270	2271	2270	2271
2272	2273	2272	2273
2274	2275	2274	2275
2276	2277	2276	2277
2278	2279	2278	2279
2280	2281	2280	2281
2282	2283	2282	2283
2284	2285	2284	2285
2286	2287	2286	2287
2288	2289	2288	2289
2290	2291	2290	2291
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