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Contributors

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BRITISH HONDURAS

Annual Medical Report

FOR THE YEAR ENDING

31st December, 1947.

ADMINISTRATIVE.

The approved establishment of Medical Officers consists of a Senior Medical Officer and eight Medical Officers. At no time, however, during 1947 has this establishment been at full strength. Two vacancies were filled in the course of the year, but the transfer of another Medical Officer to Malaya still left the medical staff with one vacancy. As a result it has not been possible to further the rural health work of the Department as has been contemplated for some time.

MEDICAL STAFF.

Dr. V. F. Anderson, Senior Medical Officer, left on a year's study leave in the United Kingdom on 1st April. His duties have been performed by Dr. D. W. Degazon.

Dr. S. J. Lach, M.D. (Cracow) was appointed to the Medical Staff and arrived in the colony on 29th July.

Dr. H. McD. Forde, M.B., B.S. (Lond), D.P.H., arrived in the colony on 14th October and assumed duty.

Dr. L. M. Ram was transferred to Malaya and left the colony on 23rd September.

Acting Senior Medical Officer attended a Conference of Directors of Medical Services and Senior Medical Officers which was held in Barbados in June.

NURSING STAFF.

Miss L. M. Roberts, M.B.E., went on vacation leave prior to retirement on 1st July.

The duties of Matron have been performed by Miss B. McNeil, Nursing Sister during the remainder of the year.

Nurses Maheia and Robateau returned from a course of training at the Public Health Training Centre in Jamaica on 3rd June.

Miss C. Arjona returned from a course of study in Dietetics in the United Kingdom on 29th July, and was appointed Dietitian.

Student Nurse Cain was selected for a course of training for the diploma of State Registered Nurse of the United Kingdom under a Colonial Development and Welfare Training Scheme and left the Colony on 15th July.

Rural Nurse Britton retired from the Service.

SANITARY INSPECTORS.

Sanitary Inspector Humphreys returned from a course of training at the British West Indian Training Station in Jamaica, after obtaining the Certificate of the Royal Sanitary Institute. Sanitary Inspector Castillo left in September to pursue a similar course in Jamaica.

VISITORS.

Visitors to the colony were Miss Ibberson, Social Welfare Adviser to the Comptroller, Dr. J. W. P. Harkness, Medical Adviser to the Comptroller and Mr. Eustus Magoon, Consulting Engineer, Caribbean Region, Rockefeller Foundation.

FINANCE.

The Medical Department's functions include not only the administration of Hospitals, Lunatic Asylum and the Public Health and Sanitation of the colony, but also the Poor Houses, feeding of school children, and the scavenging in the City of Belize and the District Towns.

The estimated expenditure of the Department for the year was \$221,618.45, representing 7.61% of the Colony's budget.

RBB/50(n)

A. Revenue—

Laboratory fees	\$ 502.00	
Hospital—(maintenance of patients and operation fees)	12,141.00	
Total		\$12,643.00

B. Expenditure—

(1) Personal Emoluments	75,201.82	
(2) Dieting—Total expenditure	\$41,029.74	incurred in respect of

the following institutions:—

Institution	Total Expenditure in Dollars	Average daily number of Patients	Cost per Head per diem in Cents
Belize Hospital	\$15,183.10	\$80.00	51
Mental Hospital & Poor Houses	16,000.37	132.14	33
Corozal Hospital	1,942.88	13.16	40
Orange Walk Hospital	1,058.77	8.28	35
Stann Creek Hospital	2,415.36	20.00	33
Toledo Hospital	2,043.70	18.00	31
Cayo Hospital	2,385.56	12.15	52

(3) Feeding of School Children—

Belize	\$3,175	
District Towns and villages	\$1,130	
Total		\$4,305

Number of children fed in Belize 80.

(4) Health and Sanitation	\$20,907.62
Scavenging	26,788.58
(5) Other Charges	\$98,720.43

LEGISLATION.

Ordinance No. 24—"To amend the Public Health Ordinance, 1942". The purpose of this legislation is to provide powers for the more effective control and detection of Typhoid carriers.

HOSPITALS AND DISPENSARIES.

REPAIRS AND EXTENSIONS.

As the prospect of a new Hospital for Belize receded farther into the dim future, the structure of the existing Hospital was thoroughly repaired and renovated. Extensions were made consisting of a new Children's Ward, and an addition to the Nurses Home designed to provide residential accommodation for ten nurses, with recreation and study rooms. Two of the wooden barracks acquired from the Army were transferred to the present Hospital grounds and erected with certain structural modifications which will enable them to provide additional accommodation for twenty patients including isolation wards for patients suffering from infectious diseases. Owing to the delays involved in obtaining sanitary fittings and plumbing fixtures from abroad, the extensions could not be put into use by the end of the year. The former Children's Ward was converted into a new X-Ray Department, and the old X-Ray room into an Eye Clinic.

Radiological facilities were not available throughout the year at any time. New X-Ray equipment consisting of a 100 KVA 200 MA. diagnostic machine and a Mobile Ward Unit had arrived and at the end of the year were in process of installation. Installation had been somewhat delayed owing to the necessity for having to acquire a 25 KVA Generator to provide the alternating current essential for the operation of these machines.

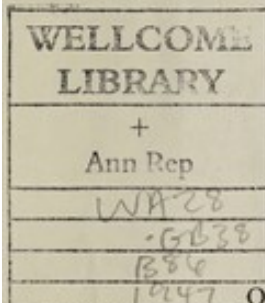
The Hospital at El Cayo was extended to provide accommodation for four Maternity beds.

There were 2,658 admissions to the Belize Hospital, and 2,320 to the district hospitals.

The attendances at the Out-Patients Department in Belize totalled 36,176.

MATERNITY WARD.

446 deliveries took place in the Maternity Ward, with three maternal deaths. Thirty-one cases of Pre-eclamptic toxæmia were treated, representing an incidence of 7%.



VENERAL DISEASES CLINIC.

There were 6,471 attendances in the course of the year.

DENTAL CLINIC.

Total attendance 1,165.

LABORATORY.

The following examinations were carried out in the Pathological Laboratory of the Belize Hospital:—

Blood.

Haemoglobin estimations	839
White Blood Cell and Differential counts	231
Blood counts	236
Thick films for Malaria	2,086
Blood Sugar estimations	7
Blood Urea estimations	66
Kahn Tests	2,943
Widal Tests	159
Erythrocyte Sedimentation Tests	68
Van den Bergh Tests	6

Urine.

Clinical examinations	2,913
Kidney function tests (Rowntree-Geraghty)	7

Faeces.

Smears	688
Sputum examinations	239
Smears for Diphtheria	7
Smears for Gonococcus	100
Fractional test meals	12
Bacteriological cultures	17

SURGICAL OPERATIONS.

Major—

Appendicectomy	33
Herniorrhaphy	38
Laporatomy	32
Dilatation and Curettage	24
Ectopic Gestation	6
Hysterectomy	24
Prostatectomy	10
Other genito-urinary procedures	45
Caesarean Sections	3
Fractures	80
Minor Operations	270

TOTAL 555

PUBLIC HEALTH.

Communicable Diseases.

Malaria. This disease still remains the principal cause of morbidity throughout the colony. There were 45 registered deaths from malaria, accounting for 8.5% of the deaths certified by medical practitioners.

Cases admitted to the various hospitals were as follows:—

Institutions	Cases	Total Admissions	Percentage of Admissions
Belize	353	2,658	13.2
Corozal	73	303	24.1
El Cayo	59	339	17.4
Stann Creek	252	874	29
Toledo	228	629	36.2
Orange Walk	45	175	26

The disease is most prevalent in the two Southern districts, which have a much heavier rainfall than the rest of the colony, and lowest in El Cayo. The hospital admissions reflect faithfully the general incidence amongst the population in the out-districts, but in Belize it does not constitute such a reliable index as a greater proportion of cases are treated as out-patients, and by private practitioners.

During the dry months of the year in Belize the majority of cases appear to be due to relapses of Benign tertian infections, and the percentage of positive films in cases of clinical Malaria is low; with the onset of the rainy season, however, *Plasmodium Falciparum* infections preponderate and a much larger ratio of positive smears is obtained.

Toward the latter part of the previous year an experiment in adult mosquito control by residual spraying of huts in the Toledo Indian villages of San Antonio and San Pedro Columbia was initiated. Unfortunately, the low general state of health in these communities rendered it inadvisable to carry out these measures as a rigidly controlled scientific experiment, and so antimalarial treatment was given concurrently. The vital statistics (vide Appendix "B"—following a report by Dr. G. G. Smith, Medical Officer, Toledo) of these villages have shown within fifteen months of the inception of these measures a reversal in their trend; for the first time for many years the birth rate exceeded the death rate. This experience indicates the important role played by Malaria in inhibiting the natural increase of the Mayan populations in rural areas.

A survey of the spleen rates of the school population in the villages of the Northern District yielded the following results:—

Villages	Number of children examined	Splenomegaly	%
Caledonia	39	9	23
Chunax	59	13	22
Douglas	38	6	15
Guinea Grass	61	13	21
Louisville	62	4	6
Patchakan	43	6	14
Progreso	64	12	19
San Antonio	43	0	—
San Estevan	34	11	32
San Roman	59	2	3
Xaibe	62	11	17
Yo Creek	64	0	—
Total	628	87	14

Spleen Survey.

The splenic index obtained from an examination of 545 school children in Belize was 8%.

In the Toledo District the corresponding spleen rates of the Mayan and Kekchi Indian villages were:—

San Antonio	27%
Columbia	49%
Crique Sarco	55%
Santa Theresa	90%

Vectors—While the local Anopheline mosquitoes have within the last decade been identified by Drs. Komp, Kumm, and Walker, their habits have not yet been the subject of detailed study, an undertaking which would appear to be a pre-requisite to the adoption of any large scale antimalarial measures based on adult mosquito control.

Insecticides—It is difficult to assess the contribution of residual spraying with D. D. T. to the gratifying results of the antimalarial work in the Toledo Indian villages. Our limited experience of its use in other localities suggests that it is of limited value against vectors whose habits do not render them susceptible to the lethal effects.

Typhoid.—There were 61 cases of this disease notified, among which 9 deaths occurred. This is the highest incidence in any year so far. The majority of the cases occurred in the Belize district in a sporadic manner. The distribution of the cases indicated the spread

of infection by means of carriers, who in many cases could be traced. A graph of the incidence by months for the last three years is given—see "B".

Pulmonary Tuberculosis.—There were 74 cases and 32 deaths from this disease registered. The death rate for the year was 50 per 100,000 of population or 6% of the total deaths certified by medical practitioners.

The death rate from the disease during the last ten years is given in the following table:—

Year	Total deaths	Death rate per 100,000 of population
1938	28	40
1939	30	50
1940	34	50
1941	38	60
1942	31	50
1943	44	73
1944	29	46
1945	37	51
1946	42	70
1947	32	50

At present there is accommodation available for the isolation of 12 cases. Until recently patients have been extremely reluctant to remain in these hutments. The application of Artificial Pneumothorax with encouraging results in a few early cases has so modified that attitude, however, that the present accommodation is now quite inadequate to the demand.

The present financial resources of the Colony do not offer any immediate prospect of adequate institutional care being provided for cases of this disease. The only hope appears to lie in the development of reasonably cheap antibiotics or synthetic drugs for their treatment and in preventive measures such as B. C. G. inoculation.

Dysentery.—A total of 112 cases were treated in the hospitals throughout the colony; of these 51 were Amoebic, 33 Bacillary, and 28 unspecified.

Virulent forms of this disease do not occur in the Colony, and owing to the effectiveness of drugs of the Sulpha group, the mortality in treated cases is negligible.

In rural areas where the services of medical practitioners are not available, some form of dysentery is frequently the terminal event in a debilitated condition produced by chronic malaria and malnutrition.

Diphtheria.—Four cases occurred as compared with two in 1946, and eight in 1945.

All the cases were in children under the age of five years.

Nutritional deficiencies.—Comparatively few cases are seen presenting visible stigmata of recognised deficiency syndromes. It is nevertheless obvious that a large section, probably a majority of the population live in a state of chronic subnutrition. This is particularly true with one or two conspicuous exceptions of the village population of school-age in rural areas. The local nutritional problem is in no way different from that prevalent among all poor tropical populations—an inadequate supply of high grade protein, fats and vitamins in the dietary. The subject is discussed more fully under Rural Health.

VITAL STATISTICS.

The table at "C" gives the estimated population of the Colony, birth and death rates by districts.

2. The following table gives comparative data over a period of three years:—

	Birth Rate	Death Rate	Infantile Mortality
1947	41.2	17.5	120
1946	34.3	16.0	105
1945	33.2	18.7	140

The birth and death rates are per 1,000 of estimated population. The infantile mortality per 1,000 births.

3. Table of still-births by districts:—

	1947	1946	1945
Belize	41	41	24
Northern District	18	17	12
Stann Creek	14	19	12
Toledo	10	13	8
El Cayo	8	13	6

4. Table showing proportion of deaths certified by medical practitioners during the year under review:—

	Deaths certified	Total deaths	Proportion certified
Belize	306	397	77%
Northern District	73	246	29%
Stann Creek	67	100	67%
Toledo	46	203	23%
El Cayo	38	101	38%
<i>Colony</i>	530	1,049	50%

TABLE "C"

RECORD OF BIRTHS AND DEATHS OF THE COLONY.

Districts	Est. Population		Total	Population per Sq. Mile	Area in Sq. Mile	Births	Deaths	Infantile Mortality
	Males	Females						
Belize ..	12,961	14,909	27,870	17.18	1,623	1,042 37.3	397 14.2	111 10.65
Northern	6,537	6,273	12,810	5.87	2,180	563 43.9	248 19.3	84 14.92
Stann Creek	3,076	3,538	6,614	7.87	840	248 37.4	100 15.1	21 8.46
Toledo	3,211	3,311	6,522	3.06	2,125	309 47.3	203 31.1	51 16.50
Cayo ..	4,050	3,637	7,687	4.20	1,830	311 40.4	101 13.1	30 13.82
COLONY	29,835	31,668	61,503	7.15	8,598	2,473 40.2	1,049 17.5	297 12.01

INFANT WELFARE CLINICS.

Belize—Clinics were held weekly at two centres, Mesopotamia and Hutson Street, throughout the year. The following statistics show the volume of the work done:—

	Mesopotamia	Hutson St.	TOTAL
Number of clinics held	48	50	98
Attendances	8,120	5,880	14,000
New babies registered	346	268	614
Medical examinations	508	421	929
Deaths	13	19	32
Deaths under age of 1 year	6	12	18

Infantile mortality of clinic babies—29 per 1,000 registered babies.

This is to be compared with the infantile mortality for the Belize District which was 106.5 per 1,000 registered births.

Districts—Clinics were held weekly in all the principal district towns. District nurses are now stationed in Corozal, and Stann Creek and the work of the clinics is being followed up by home visits.

SCHOOL MEDICAL WORK.

Belize—A limited amount of school medical work was restarted in the course of the year. Examination of three age groups, children aged 6, 9 and 12 years was undertaken. The results of these examinations are shown in the following table:—

Total number examined	545	
Poor nutrition	133	26%
Anaemia	78	14%
Tonsillitis	101	18%
Adenoids	5	0.9%
Enlarged cervical glands	93	17%
Dental caries	133	26%
Heart disease	9	1.6%
Hernia— Umbilical	14	2.6%
Inguinal	0	—
Splenomegaly	45	8%

Sick children received free treatment at the Out-Patients Department of the Belize Hospital

A midday meal was served to eighty children selected on account of their poor nutritional condition, every school day throughout the year.

In the Annual Medical Report for 1946 the Senior Medical Officer stated—"In one village only (so far) is every child given a meal at mid-day on every school day. This is the Carib village of Seine Bight. In order to discourage a total dependence on Government bounty the Department insisted that the village should provide fish for the meal while the department provided the other ingredients. To assist them in the procuring of fish the Department 'loaned' the villagers a seine. It is with regret that I have to report that so far the experiment has been of dubious—the villagers being adepts at a war of attrition against a Government department which appears to them to have a determined desire to feed somebody."

The final episode in this nutritional project was a demand from the villagers for payment by the Department for the fish which was destined for the midday meals of their own children. In the face of such a wholly un-cooperative attitude, the Department had no alternative but to abandon the experiment.

In contrast the provision of school-meals at the school of Nazareth in the Toledo District has functioned smoothly, largely owing to excellent organisation of the Pallotine Sisters who run the school.

RURAL HEALTH.

The rural population of this colony is scattered over a wide area in small villages and settlements, linked by communications which still consist mainly of forest trails and rivers. Road construction within the last thirteen years has linked the principal towns of

the Northern and Western districts, and in the Southern districts roads have extended some twenty-five miles into the interior from the chief coastal town. A certain amount of ribbon development has taken place along these roads, but the majority of the rural population are still dependent on the more primitive methods of communication.

Under such conditions the prospect of being able to supply a medical practitioner's service to these scattered communities is dim. Fortunately the health problems of these communities are relatively simple. Malaria, worms and malnutrition account for the bulk of the illness among them, and the experiment of stationing Rural Nurses, locally trained in elementary hygiene and simple methods of treatment, has within the short time since its inception proved an unqualified success. The villages of San Antonio, Toledo, Placencia, Monkey River, Gales Point, Banana Bank, Crooked Tree and Double Head Cabbage have been the scene of their labours.

The problem of malnutrition is more difficult, as it is more directly related to economic conditions. Generally speaking, while little clinically detectable evidence of nutritional disease is encountered, the rural population, with a few conspicuous exceptions, suffers from a state of chronic subnutrition manifested by the poorer physical development of the children of school age, as compared with that of children in towns. The conspicuous exceptions are the villagers of Crooked Tree, Placencia, Barranco, and the Caye settlements of San Pedro and Caye Caulker. In these communities prosperity is based on agriculture; husbandry, and fishing with ready access to a market for their produce.

The elimination of the health handicap imposed on people residing in rural areas should be an essential preliminary to any land settlement or agricultural programme, on which the future progress of the Colony depends.

D. W. DEGAZON,

Acting Senior Medical Officer.

31.7.48

APPENDIX "A"

REPORT ON ANTI-MALARIA WORK CARRIED OUT IN TWO INDIAN VILLAGES IN TOLEDO DISTRICT, BRITISH HONDURAS.

The purpose of this report is to try to outline the scope of anti-malaria work carried out in the Indian villages of San Antonio and San Pedro Columbia in Toledo District, and to try to assess the value of the factors which have contributed to the gradually lessening incidence of malaria in these villages.

Both villages have for years been visited periodically by the District Medical Officer, and the inhabitants have therefore received spasmodic anti-malaria treatment. During the past ten years (since the road has been opened) the Medical Officer's visits have been more regular, and the Indians themselves could visit Punta Gorda for treatment or hospitalisation. Recently a further improvement has taken place with the establishment of two rural nurses in San Antonio (March 1947). This has undoubtedly had a marked beneficial effect on Indian health in the two villages concerned, and a steady decline in the incidence of malaria has resulted. As malaria is the chief detriment to health amongst Indians, a consequent all-round physical and mental improvement has taken place. In San Antonio alone, a debit balance of deaths over births in 1946 was turned into a credit balance of 42 in 1947. Possible factors involved are set out later on.

The Survey was carried out in June 1947 and findings must be viewed in the light of the fore-going information:—

I. *Topography.* Both villages are in the hills behind the coast about 20 miles from Punta Gorda.

San Antonio—Height 650 feet above sea level. The village is built on a series of hills. The soil is loose and contains a good deal of stone and slate. The village itself has good natural drainage. The stream which runs below the village has been damned to provide a bathing point, but the bush has been cut well back both from this point and from the edges of the village itself. The village has a reputation of being comparatively free of malaria.

San Pedro Columbia—This village is built on clay soil, and has very little natural drainage. The Columbia branch of the Rio Grande runs beside it; and as this river is in dry weather reduced to a series of pools, ideal conditions exist for the breeding of Anopheline Mosquitoes.

The incidence of malaria is high.

II. *Splenic Indices*—These were taken in December 1946 and again in December 1947 in both villages amongst the children only—

	December 1946	December 1947
San Antonio	33—1/3 %	27 %
San Pedro Columbia	54 %	49 %

III. *Parasitic Indices*—

- (1) San Antonio—1 %
- (2) San Pedro Columbia—5.3 %

IV. *Anopheline Survey*—

- (1) San Antonio —A. ALBIMANUS
- (2) San Pedro Columbia —A. APICIMACULA

Considerable difficulty was experienced in trapping A. Albimanus at San Antonio, and only after the heaviest of rains was any success obtained. This fact accords with its reputation of being comparatively malaria free and it is thought that most of the infections must occur out of the village, that is, when the inhabitants go to their crops.

No difficulty was experienced in trapping A. Apicimacula at Columbia. Other Anophelines were trapped as well, but could not be identified.

Spraying—Spraying was carried out in June, August and November. The mixture used contained—

Cytos	(50% D.D.T.)	1/2 Gal.)	made up to 5 gals. with rain water.
Xylol		1/2 Gal.)	
Triton		8 Oz.)	

The Indian population was at first extremely suspicious of the effects which the spraying would have on the interior of their houses but when they found that these were entirely beneficial i.e. the destruction of all forms of insect life, they were quick to appreciate the benefits and they now openly welcome the Sanitary Inspector with his gasoline-driven sprayer. Eighty-nine houses were sprayed in San Antonio and sixty-one in San Pedro Columbia.

Rainfall figures at Punta Gorda and total incidence of fever figures are shown for each month at Appendix "B"—also rainfall figures for 1946 and 1945. It will be possible to show comparative figures at the end of this year.

Summary—A brief review of a very modest beginning at antimalaria work in two Indian villages is given. The total incidence of fever in San Antonio would appear to have dropped throughout the year, though comparative figures for previous years are not available. This drop in incidence may be due (i) to the increased availability of anti-malaria drugs through having nurses in San Antonio or (ii) to the effects of the spraying.

The topography of San Antonio would appear to be an important factor in its comparative freedom from malaria. No other Indian village I have been in has had a spleen rate as low as 27 %.

The D.D.T. spraying is popular with the Indians. This is an important factor.

APPENDIX "B"

Births and Deaths in San Antonio and San Pedro Columbia—1945, 1946, 1947.

	SAN ANTONIO			SAN PEDRO COLUMBIA		
	Births	Deaths	Balance	Births	Deaths	Balance
1945	38	66	-28	12	30	-18
1946	24	36	-12	18	30	-12
1947	71	39	42	19	20	- 1

MORBIDITY REPORT ON IN-PATIENTS IN ALL THE HOSPITALS OF THE COLONY FOR 1947
INFECTIOUS AND PARASITIC DISEASES

Disease	Belize	Corozal	Toledo	Cayo	Orange Walk	Stann Creek	TOTAL
1. Typhoid fever and Para-typhoid fevers	55	2	1	8	—	2	68
2. Bacillary dysentery	6	—	25	2	—	—	33
3. Amoebic dysentery including amoebiasis of any site	17	22	4	1	6	1	51
4. Dysentery unspecified	14	3	1	—	2	8	28
5. Scarlet fever	—	—	—	—	—	—	—
6. Whooping cough	14	—	—	—	—	—	14
7. Diphtheria	5	1	—	—	—	—	6
8. Measles	33	—	2	—	2	2	39
9. Influenza	1	30	—	—	18	—	49
10. Chickenpox	—	—	—	—	—	—	—
11. Mumps	2	—	—	—	—	—	2
12. Tuberculosis of the respiratory system	29	10	1	3	3	4	50
13. Other forms of tuberculosis	10	1	2	—	—	2	15
14. Gonococcus infection of the female genito-urinary system	16	1	1	7	—	6	31
15. Gonococcus of the male genito-urinary system	11	3	1	—	—	4	19
16. Gonococcus infection of the eye	5	—	2	—	—	—	7
17. Other forms of gonococcus infection	11	—	—	—	1	5	17
18. Malaria, unspecified	245	35	9	39	12	249	589
19. Malignant tertian malaria (P. falciparum)	86	36	9	17	32	1	181
20. Quartan malaria (P. malariae)	3	—	—	—	—	—	3
21. Benign tertian malaria (P. vivax)	17	—	209	3	1	—	230
22. Blackwater fever	2	2	1	—	—	2	7
23. Early syphilis	19	—	—	—	1	1	21
24. Cardiovascular syphilis	3	—	—	—	—	—	3
25. Syphilis of the nervous system	2	—	1	—	—	1	4
26. Other forms of syphilis	19	—	1	2	1	7	30
27. Congenital syphilis	8	—	—	—	—	3	11
28. Undulant fever (brucellosis)	2	—	—	—	—	—	2
29. Cerebrospinal (meningococcus) meningitis	1	—	—	—	—	—	1
30. Erysipelas	3	—	—	—	—	—	3
31. Tetanus	3	—	—	—	2	1	6
32. Septicemia	—	—	—	—	—	1	1
33. Gas bacillus infection	2	—	—	—	—	2	2
34. Rabies	—	—	—	—	—	—	—
35. Tularemia	—	—	—	—	—	—	—
36. Smallpox including alastrim	—	—	—	—	—	—	—
37. Acute poliomyelitis but not sequelae to the acute disease	—	—	1	—	—	—	1
38. Acute infectious encephalitis	1	—	—	—	—	—	1
39. Typhus exanthematicus and other Rickettsias	—	—	—	—	—	—	—
40. Intestinal Worms other than Ankylostomiasis	12	—	3	1	1	5	22
41. Ankylostomiasis	15	—	—	10	—	9	34
42. Dermatophytosis and other forms of mycosis	1	1	—	1	—	—	3
43. Chancroid	1	—	—	—	—	1	2
44. Lympho-granuloma inguinale	10	—	—	—	—	2	12
45. Other forms of venereal diseases	4	—	—	—	—	5	9
46. Leishmaniasis	—	—	—	2	—	—	2
47. Leprosy	—	—	—	—	—	—	—
48. Plague	—	—	—	—	—	—	—
49. Yellow fever	—	—	—	—	—	—	—
50. Cholera	—	—	—	—	—	—	—
51. Relapsing fever	—	—	—	—	—	—	—
52. Dengue	—	—	—	—	—	—	—
53. Other infectious or parasitic diseases	3	—	6	1	—	—	10
NEOPLASMS							
54. Malignant neoplasm of the buccal cavity and pharynx	5	—	—	—	—	2	7
55. Malignant neoplasm of Stomach	4	—	3	—	—	7	14

Disease	Belize	Corozal	Toledo	Cayo	Orange Walk	Stann Creek	TOTAL
56. Malignant neoplasm of other digestive organs	3	1	—	2	—	—	6
57. Malignant neoplasm of the respiratory system	1	—	—	—	—	—	1
58. Malignant neoplasm of the cervix uteri	7	1	1	1	—	—	10
59. Malignant neoplasm of other female genital organs (except breast)	4	—	—	—	—	2	6
60. Malignant neoplasm of the female breast	5	—	—	—	—	—	5
61. Malignant disease of bone ..	2	1	1	—	—	—	4
62. Leukemias and aleukemias, Hodgkin's disease and other forms of generalised or localised malignant neoplasm	1	—	—	—	—	—	1
63. Fibro-myoma of the uterus ..	25	—	—	1	—	1	27
64. Other non-malignant neoplasm of the female genital organs and breast	3	—	—	—	—	1	4
65. Other non-malignant neoplasms	9	—	2	—	—	—	11

*RHEUMATIC FEVER, DISEASES OF THE ENDOCRINE GLANDS
AND NUTRITION, AND OTHER GENERAL DISEASES.*

66. Rheumatic fever with heart involvement	11	—	4	2	—	4	21
67. Rheumatic fever without heart involvement and including chorea	2	3	—	—	—	1	6
68. Diabetes mellitus	10	4	—	—	4	—	18
69. Diabetes mellitus with infection or gangrene, acidosis or other sequelae	2	—	—	—	—	—	2
70. Toxic goiter	1	—	1	—	—	—	2
71. Other forms of goiter	2	—	—	—	—	—	2
72. Other diseases of the endocrine glands	2	—	1	—	—	—	3
73. Malnutrition and related disorders but not of infants under 1 year of age	18	—	—	—	—	—	18
74. Pellagra	2	—	—	—	1	—	3
75. Rickets	—	—	—	—	—	—	—
76. Other avitaminoses	6	—	—	—	4	—	10
77. Other general diseases	4	3	4	—	—	—	11

DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS

78. Anaemia, pernicious including macrocytic, and anaemia gravis of pregnancy	25	—	3	—	3	1	32
79. Other forms of Anaemia	13	1	7	4	6	7	38
80. Other diseases of the blood and blood-forming organs	1	—	—	—	1	—	2

CHRONIC POISONING AND INTOXICATION

81. Alcoholism (chronic)	—	3	—	—	—	—	3
82. Other chronic poisoning including drugs of addiction e.g. marihuana	—	—	—	—	—	—	—

*DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS
INCLUDING MENTAL DISORDERS*

83. Inflammatory diseases of the central nervous system	2	—	—	—	—	—	2
84. Intracranial lesions of vascular origin	4	—	—	2	—	—	6
85. Residuals of intracranial lesions of vascular origin	—	—	—	—	—	—	—
86. Other disease of the central nervous system	6	—	—	—	—	—	6
87. Diseases of the sympathetic and the peripheral nervous system..	3	—	2	1	1	—	7

Disease	Belize	Corozal	Toledo	Cayo	Orange Walk	Stann Creek	TOTAL
88. Psychoses	6	—	—	—	—	—	6
89. Psychoses due to poisons, injuries or somatic disease	—	2	—	—	—	—	2
90. Psychoneurosis	1	2	—	—	1	—	4
91. Psychopathic personality—Behaviour and related problems	3	—	—	—	—	—	3
92. Mental deficiency	2	—	—	—	—	2	4
93. Epilepsy	10	1	2	1	—	—	14
94. Migraine	—	—	—	—	—	—	—
95. Other mental and nervous diseases	4	3	—	4	—	2	13
96. Diseases of the organs of vision except trachoma but including errors of refraction	32	—	—	1	1	1	35
97. Trachoma	—	—	—	—	—	—	—
98. Diseases of the ear and mastoid process	6	1	4	—	—	2	13

DISEASES OF THE CIRCULATORY SYSTEM

99. Hypertensive cardio-vascular disease	3	1	—	2	—	1	7
100. Hypertensive cardiovascular-renal disease	4	—	—	—	—	—	4
101. Subacute bacterial endocarditis	1	—	—	—	—	—	1
102. Other diseases of the cardiac valves, and of the myocardium	8	1	7	—	—	10	26
103. Diseases of the coronary arteries and angina pectoris	1	1	—	—	1	—	3
104. Functional disease of the heart	—	—	—	—	—	—	—
105. Other diseases of the heart	11	—	3	—	—	4	18
106. Arteriosclerosis	4	—	—	—	—	6	10
107. Other diseases of the arteries	1	1	—	—	—	1	3
108. Other diseases of the veins including haemorrhoids and varicose veins	8	—	—	2	—	—	10
109. Lymphadenitis and lymphangitis of septic origin—as distinct from lymphadenitis of, say syphilis and other general diseases	2	—	—	—	1	—	3

DISEASES OF THE RESPIRATORY SYSTEM

110. Acute nasopharyngitis (common cold)	2	1	1	—	—	—	4
111. Tonsillitis	19	3	2	—	1	2	27
112. Hypertrophied tonsils with or without adenoids	3	—	—	—	—	—	3
113. Other diseases of the pharynx and of the larynx	8	2	2	—	—	—	12
114. Bronchitis	60	6	11	9	6	121	213
115. Pneumonia (all forms)	61	7	84	13	1	22	188
116. Pleurisy with effusion	11	—	13	2	—	6	32
117. Sinusitis and other diseases of the Nasal fossae	3	—	5	1	—	—	9
118. Allergic rhinitis (hay fever)	—	—	—	—	—	—	—
119. Asthma	17	4	3	2	—	7	33
120. Other diseases of the respiratory system	12	—	5	3	1	2	23

DISEASES OF THE DIGESTIVE SYSTEM

121. Diseases of the buccal cavity and esophagus	11	—	4	1	1	2	19
122. Ulcer of the stomach and duodenum	—	2	1	1	—	—	4
123. Diarrhea and enteritis over two years of age	18	—	2	4	—	3	27
124. Diarrhea and enteritis under two years of age	25	—	4	4	—	2	35
125. Appendicitis	47	—	2	4	1	4	58
126. Hernia	49	—	6	—	—	2	57
127. Intestinal obstruction	2	1	—	1	—	—	4
128. Other diseases of the stomach and intestines	36	—	2	7	2	5	52

Disease	Belize	Corozal	Toledo	Cayo	Orange Walk	Stann Creek	TOTAL
129. Cirrhosis of the liver	6	2	1	2	—	2	13
130. Catarrhal jaundice	6	1	1	—	—	3	11
131. Other diseases of the gall-bladder and biliary ducts	8	3	3	4	—	1	19
132. Other diseases of the digestive system	28	—	11	2	—	5	46
<i>DISEASES OF THE GENITO-URINARY SYSTEM</i>							
133. Nephritis	10	1	2	—	1	5	19
134. Pyelitis, pyelonephritis and pyelocystitis but not of pregnancy	10	1	28	4	2	—	45
135. Other diseases of the kidneys and ureters	10	—	—	3	1	1	15
136. Stricture of the urethra ..	18	—	2	1	—	—	21
137. Other diseases of the urinary system	16	—	1	1	—	3	21
138. Diseases of the prostate ..	17	3	1	—	1	—	22
139. Other diseases of the male genital organs including phimosis ..	28	1	2	—	1	2	34
140. Diseases of the female genital organs and breast (not neoplasms)	74	2	11	9	2	9	107
141. Menopause	2	1	—	—	—	5	8
142. Menstrual disorders	18	2	1	1	—	6	28
<i>DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND THE PUERPERIUM.</i>							
143. Delivery with live birth ..	431	1	3	10	1	84	530
144. Toxemias of pregnancy ..	21	2	2	2	—	4	41
145. Placenta praevia	—	1	1	—	—	—	2
146. Other haemorrhage of pregnancy and puerperium	6	—	—	—	—	1	7
147. Pyelitis and pyelonephritis of pregnancy, childbirth and the puerperium	5	—	5	—	—	—	10
148. Other infections of pregnancy, childbirth and the puerperium	2	—	—	1	—	3	6
149. Abortion	40	3	9	3	4	15	74
150. Ectopic pregnancy	5	1	—	1	—	—	7
151. Other complications of pregnancy, childbirth and the puerperium	41	3	5	2	—	5	56
152. Delivery with still birth (foetus over 28 weeks)	19	2	2	4	—	1	28
153. Diseases of the skin but not fungus infections	73	5	3	31	3	8	123
<i>DISEASES OF THE BONES AND ORGANS OF MOVEMENT</i>							
154. Arthritis but not gonococcal ..	12	3	1	1	—	1	18
155. Other diseases of the bones and joints	13	—	1	1	2	—	17
156. Other diseases of the organs of movement	8	—	6	4	—	—	18
<i>CONGENITAL MALFORMATIONS.</i>							
157. Congenital malformations ..	4	—	—	1	—	—	5
<i>DISEASES PECULIAR TO THE FIRST YEAR OF LIFE.</i>							
158. Prematurity	38	—	—	1	—	1	40
159. Feeding problems including malnutrition under one year of age	—	—	—	—	—	—	—
160. Other diseases peculiar to the first year of life and including birth trauma	2	—	2	1	—	—	5
<i>OTHER AND ILL-DEFINED DISEASES.</i>							
161. Senility	2	3	—	—	—	2	7
162. Lumbago, myalgia, rheumatism, fibrositis, neuralgia except neuritis and trigeminal neuralgia ..	7	—	1	—	5	4	17
163. Other ill-defined diseases ..	—	—	5	—	1	—	6

Disease	Belize	Corozal	Toledo	Cayo	Orange Walk	Stann Creek	TOTAL
164. Reaction from prophylactic inoculation and other allergic manifestations	—	1	—	—	—	—	1
165. Other conditions due to previous disease of injury	3	—	2	—	—	—	5
<i>INJURIES AND POISONINGS.</i>							
166. Acute poisoning	17	—	1	1	—	—	19
167. Injury by foreign body and general effects of external causes, including concussion without fracture	3	2	7	—	1	1	14
168. Snake bite	1	—	1	—	2	1	5
169. Other general effects of external causes	3	4	6	1	—	1	15
170. Concussion of brain or spinal cord	8	—	—	—	—	1	9
171. Compound fracture	13	1	2	1	2	1	20
172. Simple fracture	36	6	2	6	3	7	60
173. Dislocation, sprain, or other joint injury without fracture ..	8	—	2	—	—	1	11
174. Burn or scald	10	1	2	—	3	2	18
175. Cut, laceration or puncture wounds, abrasion, contusion ..	135	43	18	24	17	46	283
176. Other or unspecified injury ..	8	—	—	—	2	2	12
<i>OTHER ENUMERATED CONDITIONS WITHOUT SICKNESS.</i>							
177. Medical examinations, negative findings including post operation check up	38	1	—	1	—	—	40
178. Infectious disease carrier without sickness	2	—	—	—	—	—	2
179. Prophylactic inoculation without sickness	—	—	—	—	—	—	—
180. Uncomplicated pregnancy without delivery	—	—	—	1	—	—	1
181. Well-baby and child care ..	1	—	—	1	—	—	2
182. Infant born alive ..	—	See No. 143		—	—	—	—
183. Therapeutic manoeuvres ..	—	—	—	3	—	—	3
TOTAL	2,642	303	625	300	173	791	4,834

