

REPORT
OF THE
DEPARTMENT OF HEALTH
OF THE
PANAMA CANAL
FOR THE
MONTH OF MAY, 1916

E. E. PERSONS

Major, Medical Corps, United States Army, Acting
Chief Health Officer, Balboa Heights, Canal Zone

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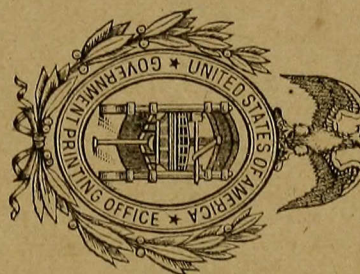
WASHINGTON
1916

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LETTER OF TRANSMITTAL.

THE PANAMA CANAL, CANAL ZONE,
HEALTH DEPARTMENT,
Balboa Heights, June 19, 1916.

Col. CHESTER HARDING,
*Acting Governor The Panama Canal,
Balboa Heights, Canal Zone.*

SIR: I have the honor to submit the following report of the operations of the department of health for the month of May, 1916.

Very respectfully,

E. E. PERSONS,
Acting Chief Health Officer.

GENERAL REMARKS.

No cases of yellow fever, smallpox, or plague originated on or were brought to the Isthmus during the month. The last case of smallpox on the Isthmus occurred in a passenger from a steamer arriving at Cristobal on February 3, 1915. The last case of smallpox contracted on the Isthmus was in 1907.

The last case of yellow fever brought to the Isthmus was on December 10, 1915. The last case of yellow fever contracted on the Isthmus occurred in November, 1905.

The last case of bubonic plague brought to the Isthmus was on October 17, 1911. The last case of bubonic plague contracted on the Isthmus occurred in August, 1905.

VITAL STATISTICS OF EMPLOYEES.

The health of the employees remained good during the month. The following statistics are based on the number of names on the rolls for the preceding month, which was 34,393.

The total number of admissions to hospitals and quarters was 821, a rate of 285.45 per thousand, as compared with 207.70 per thousand for the preceding month, and 307.28 per thousand for the corresponding month of last year.

The total number of deaths from all causes was 15; of these 10 died from disease, or 3.49 per thousand, as compared with 6.38 for the preceding month, and 2.43 for the corresponding month of last year.

The constantly noneffective rate was 8.59 per thousand as compared with 9.81 for the preceding month, and 9.95 for the corresponding month of last year.

The total admission rate for malaria, hospitals, and quarters was 10.47 per thousand, as compared with 7.80 for last month, and

33.64 for the corresponding period of last year, and the total non-effective rate 0.26 per thousand, the same as for last month, as compared with a rate of 0.97 for the month of May, 1915.

The five diseases causing the highest admission rates to hospital, in the order of their numerical importance, were: Venereal diseases, diseases of the digestive system, diseases of the respiratory system, malaria, and diseases of the skin and of the cellular tissue. These five classes of disease caused 46 per cent of all admissions to hospitals. Eight per cent of all admissions to hospitals were caused by malaria.

There were no admissions of employees to hospital from typhoid fever, as against a rate of 1.77 for the preceding month.

EFFECTS OF RACE.

The admission rate to hospital and the death rate from disease for black employees were 64.95 and 3.63 per thousand, as compared with 60.40 and 6.99 per thousand for last month, and 102.70 and 2.83 per thousand for the corresponding period of last year. For white employees, the admission rate to hospital and the death rate from disease for the month were 276.13 and 2.58 per thousand, as compared with 221.89 and 2.58 per thousand for the preceding month, and 307.19 and 0.00 for the corresponding month of last year.

The admission rate to hospitals and quarters from malaria was 8.87 per thousand for blacks and 20.64 for whites, as compared with a rate of 5.34 for blacks and 23.22 for whites for last month, and 21.83 for blacks and 104.84 for whites for the corresponding month of last year.

The death rate for Americans was 0.00 and the admission rate to hospitals from disease was 205.06 per thousand, as compared with a rate of 0.00 and 224.04 for May, 1915.

DEPORTATIONS.

There were three deportations accomplished during the month, two employees and one nonemployee, all on account of disease.

CANAL ZONE.

The population of the Canal Zone (including employees, non-employees, and the military garrisons) is 33,023, among whom there was a total of 30 deaths; of these 26 deaths were from disease, giving a rate of 9.45 per thousand, as compared with 8.02 for the preceding month and 10.41 for the corresponding month of last year.

Of the total deaths from disease the percentage under 5 years of age was 38, as compared with 32 for last month.

There were 56 births reported, giving a rate of 20.35. Of these 19 were of white and 37 of colored children. There were four deaths of children under 1 year of age, all colored, giving an infant mortality rate, based on number of births reported for the

month, of 0.00 for white, and 108 per thousand for colored children, with a general average of 71. The percentage of stillbirths to total births was 5.

PANAMA CITY.

The population of the city is 60,778, among whom there was a total of 138 deaths; of these 132 deaths were from disease, giving a rate of 26.06 per thousand, as compared with 24.48 for the preceding month and 25.24 for the corresponding period of last year.

Of the total deaths from disease the percentage under 5 years of age was 48, with a comparison of 41 per cent for last month.

The principal causes of deaths showing a decrease as compared with the preceding month were: Tuberculosis of the lungs 21, as compared with 24 for last month; diarrhea and enteritis 15, as compared with 19 for the preceding month; and arterio-sclerosis none, as compared with 3 for the month of April.

There were 189 births reported, giving a birth rate of 37.32. There were 32 deaths under 1 year of age, giving an infant mortality rate, based on the number of births reported during the month, of 169 per thousand.

The percentage of stillbirths to total births was 7.

COLON.

The population of the city is 24,693, among whom there were 52 deaths; of these 50 deaths were from disease, giving a death rate of 24.29 per thousand, as compared with 26.73 for the preceding month and 18 for the corresponding month of last year.

Of the total deaths from disease the percentage under 5 years of age was 38, as compared with 44 for last month.

The principal causes of death showing a decrease as compared with the preceding month were: Broncho-pneumonia 6, as compared with 7 for the preceding month; diarrhea and enteritis 2, as compared with 6 for last month; and tuberculosis of the lungs 3, as compared with 5 for the month of April.

There were 73 births reported, giving a birth rate of 36.85 per thousand, with an infant mortality rate, based on the number of births reported for the month, of 219 per thousand.

The percentage of stillbirths to total births was 7.

HOSPITAL DIVISION.

ANCON HOSPITAL.

During the month the average number of patients constantly in hospital was 428.76. The per capita cost of patients in hospital proper was \$2.17 gross and \$1.07 net. The net per capita cost of patients in the insane asylum was \$0.42 per day.

Detailed statistics are shown in Table XIII.

BOARD OF HEALTH LABORATORY.

Out of 5,192 *Anopheles* mosquitoes which were sent to the laboratory for identification from all parts of the Canal Zone, all were *albimanus* except 10 *tarsimaculata*, 2 *argyritarsis*, 9 *pseudopunctipennis*, 1 *apicimacula*, and 9 *malefactor*.

Other mosquitoes sent in for identification were as follows: 9,248 *Culex* and allied genera, 7,446 *Mansonia*, 90 *Stegomyia*, 75 *Wyeomyia*, 42 *Aedes taeniorhynchus*.

INSANE DEPARTMENT.

During the month there were 15 admissions, 7 discharges, and 4 deaths.

Included in these figures are one retransfer from Ancon Hospital and two transfers to Ancon Hospital for surgical treatment. There were two deportations to the United States and one to Scotland.

The general health of the patients and cripples remains good.

Detailed statistics are shown in Table XIII.

CHRONIC WARD.

There were 29.84 chronic and incurable patients constantly cared for during the month. The cost per patient per day was 23 cents.

Detailed statistics are shown in Table XIII.

COLON HOSPITAL.

The average number of employees constantly sick was 24.33. The average number of days' treatment per employee was 8.79. The per capita cost of patients was \$2.82 gross and \$2.17 net.

Detailed statistics are shown in Table XIV.

PALO SECO LEPER ASYLUM.

The number of patients under treatment at the end of the month was 60. There were three admissions during the month, with no deaths nor discharges.

Detailed statistics are shown in Table XV.

SANTO TOMAS HOSPITAL.

During the month a total of 1,348 patients were treated, 33 less than the preceding month.

The daily average of patients in the hospital was 438, as compared with 456 for the preceding month, and the total number of days' treatment was 13,596, as compared with 13,860 for the month of April.

A total of 76 deaths occurred, with tuberculosis, pneumonia, and congenital debility the chief causes in the order named.

Detailed statistics are shown in Table XVI.

DISTRICT DISPENSARIES.

The dispensary having the highest admission rate for malaria was Cristobal, with a percentage of 0.08. No malaria cases among employees were reported from either the Balboa or Culebra-Empire districts during the month.

SANITATION.

CANAL ZONE.

The several sanitary districts of the zone have been maintained in particularly good condition, with a view to controlling the breeding of mosquitoes at the beginning of the rainy season. Reports thus far received indicate that there is very little mosquito breeding, and there has been much less malaria than during May of any preceding year.

Culex and *stegomyia* larvae were found in the "ant-proof gutters" of the concrete foundation blocks used under some houses in Balboa Heights. These blocks have proven worse than a failure, in that they do not render the houses ant proof and are a breeding place for mosquitoes.

At Frijoles, Monto Lirio, and New Gatun a number of old buildings have been condemned as insanitary, and these will be promptly removed.

PANAMA.

The health officer, Panama, reports as follows concerning malarial conditions:

"A new malaria rate record was established during the month for the 15,000 employees who live in Panama City. There were no reported hospital admissions on account of malarial fever from among the employees, giving us a perfect score for the month of May. As the employees living in Panama City constitute 25 per cent of its population, the admissions to Ancon Hospital for this disease serve as a very accurate index as to the prevalence of malaria in the city. Eleven cases of malaria were reported from other sources, which is the lowest recorded to date. Below is submitted a table showing the admissions to Ancon Hospital of cases of malaria from the employees living in Panama City, by months for 1914, 1915, and 1916:

ANCON HOSPITAL CASES.
EMPLOYEES FROM PANAMA CITY.

	1914	1915	1916
January.....	187	50	6
February.....	59	34	6
March.....	49	36	2
April.....	61	17	7
May.....	105	9	.....
Total.....	461	146	21

“For 1916 it may be noted that we have had an average of one admission per week from our employees living in Panama City. In view of the fact that these employees are living in unscreened houses, it would seem that the minimum admission rate has been reached for a number of persons living under such circumstances.

“In explanation of the favorable showing obtained in anti-malarial work for this season of the year, it is believed that the usually anticipated “May rise” in the malaria rate may be largely obviated by “April hustle” in thoroughly preparing the drainage ditches for the onset of the rainy season.”

COLON.

A physical examination of all bakers plying their trade in Colon was made during the month. This examination had particular reference to active pulmonary tuberculosis and visible evidences of syphilis, gonorrhea, and other transmissible diseases.

Owing to the increased incidence of malaria, an extension of antimosquito work has been undertaken on the south end of Mindi Island and in the section at Mount Hope known as Arcia's swamp. This work embraces drainage, grasscutting, and burning off of grassy areas.

TABLE I.—ADMISSIONS, DEATHS, AND NONEFFECTIVE RATES FOR EMPLOYEES, DEATHS OF RESIDENTS OF PANAMA, COLON, AND CANAL ZONE.

ABSOLUTE NUMBERS.

	Number of employees.	Admissions to hospitals.			Deaths.			Noneffective from sickness.	
		Total.	Disease.	External causes.	Total.	Disease.	External causes.	Days treated.	Noneffective.
<i>May, 1916.</i>									
White.....	4,650	125	107	18	1	1	.....	2,546	82.14
Colored.....	29,743	221	161	60	14	9	5	6,921	223.25
Total.....	34,393	346	268	78	15	10	5	9,467	305.39
<i>April, 1916.</i>									
White.....	4,651	99	86	13	3	1	2	2,551	85.02
Colored.....	29,205	210	147	63	20	17	3	7,409	246.98
Total.....	33,856	309	233	76	23	18	5	9,960	332.00
<i>May, 1915.</i>									
White.....	4,922	162	126	36	2	.....	2	2,945	99.49
Colored.....	29,678	350	254	96	11	7	4	7,727	249.28
Total.....	34,600	512	380	132	13	7	6	10,672	344.27

PROPORTIONATE NUMBERS.

<i>May, 1916.</i>									
White.....	4,650	322.58	276.13	46.45	2.58	2.58	.....	.....	17.66
Colored.....	29,743	89.16	64.95	24.21	5.68	3.63	2.02	.....	7.51
Total.....	34,393	120.72	93.51	27.21	5.23	3.49	1.74	.....	8.59
<i>April, 1916.</i>									
White.....	4,651	255.43	221.89	33.54	7.74	2.58	5.16	.....	18.29
Colored.....	29,205	86.29	60.40	25.89	8.22	6.99	1.23	.....	7.29
Total.....	33,856	109.52	82.58	26.94	8.15	6.38	1.77	.....	9.81
<i>May, 1915.</i>									
White.....	4,922	394.96	307.19	87.77	4.88	.....	4.88	.....	19.29
Colored.....	29,678	141.52	102.70	38.82	4.45	2.83	1.62	.....	8.39
Total.....	34,600	177.57	131.78	45.79	4.51	2.43	2.08	.....	9.95

TABLE I.—DEATHS OF RESIDENTS OF THE CITIES OF PANAMA, COLON, AND CANAL ZONE—Continued.

Place.	Popula- tion.	Deaths.			Annual average per 1,000.		
		Total.	Dis- ease.	Exter- nal causes.	Total.	Dis- ease.	Exter- nal causes.
<i>May, 1916.</i>							
Panama.....	60,778	138	132	6	27.24	26.06	1.18
Colon.....	24,693	52	50	2	25.27	24.29	.97
Zone.....	33,023	30	26	4	10.90	9.45	1.45
Total.....	118,494	220	208	12	22.28	21.06	1.22
<i>April, 1916.</i>							
Panama.....	60,778	129	124	5	25.47	24.48	.99
Colon.....	24,693	60	55	5	29.16	26.73	2.43
Zone.....	32,905	25	22	3	9.12	8.02	1.10
Total.....	118,376	214	201	13	21.69	20.37	1.32
<i>May, 1915.</i>							
Panama.....	60,373	132	127	5	26.23	25.24	.99
Colon.....	29,331	147	44	3	19.23	18.00	1.23
Zone.....	34,560	36	30	6	12.50	10.41	2.09
Total.....	124,264	215	201	14	20.76	19.41	1.35

TABLE II.—DEATHS BY AGE, COLOR, AND SEX.

	White.			Colored.			Yellow.			Total.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Under 1 year.....	3	2	5	23	23	46	2	.....	2	28	25	53
1 to 4 years.....	3	3	6	21	13	34	.....	.....	.....	24	16	40
5 to 10 years.....	.....	1	1	2	.....	2	.....	.....	.....	2	1	3
11 to 20 years.....	.....	1	1	4	4	8	.....	.....	.....	4	5	9
21 to 30 years.....	4	2	6	23	17	40	.....	.....	.....	27	19	46
31 to 40 years.....	2	1	3	16	10	26	.....	.....	.....	18	11	29
41 to 50 years.....	1	.....	1	13	10	23	.....	.....	.....	14	10	24
51 to 60 years.....	1	.....	1	3	1	4	.....	.....	.....	4	1	5
61 to 70 years.....	3	.....	3	1	4	5	1	.....	1	5	4	9
71 to 80 years.....	.....	.....	.....	1	1	2	.....	.....	.....	1	1	2
Total.....	17	10	27	107	83	190	3	.....	3	127	93	220

TABLE III.—DEATHS BY NATIONALITY.

Nations.	Employees.	Nonem- ployees.	Total.
Antigua.....		1	1
Bahamas.....		1	1
British Guiana.....		1	1
Barbados.....	4	29	33
China.....		3	3
Chile.....		1	1
Colombia.....	1	8	9
Costa Rica.....		1	1
Dominica.....	2		2
Demerara.....		1	1
France.....		1	1
Guadaloupe.....		3	3
Grenada.....		4	4
Honduras.....		1	1
Italy.....		3	3
Jamaica.....	2	59	61
Martinique.....	1	7	8
Montserrat.....		1	1
Nicaragua.....		1	1
Norway.....		1	1
Panama.....	1	52	53
Peru.....	2	2	4
Russia.....	1		1
St. Kitts.....		1	1
St. Lucia.....	1	5	6
St. Thomas.....		3	3
St. Vincent.....		1	1
Spain.....		2	2
Trinidad.....		2	2
United States.....		7	7
Venezuela.....		3	3
Total.....	15	205	220

TABLE IV.—DEATH RATE AMONG AMERICANS ON THE ISTHMUS CONNECTED WITH THE PANAMA CANAL.

	Number of deaths.	Annual average per 1,000.
White employees from the United States (4,272):		
Disease.....	0	.....
External causes.....	0	.....
Total.....	0	.....
White women and children from the United States (3,543):		
Disease.....	3	10.18
External causes.....	0	.....
Total.....	3	10.18
White employees and their families from the United State (7,815):		
Disease.....	3	4.61
External causes.....	0	.....
Total.....	3	4.61
Total number of Americans on the Canal Zone, including soldiers and their families (15,827):		
Disease.....	5	3.79
External causes.....	0	.....
Total.....	5	3.79

TABLE V.—CAUSES OF DEATHS OF EMPLOYEES ON THE PANAMA CANAL AND PANAMA RAILROAD CO.

Causes of death.	White.	Colored.	Total.
<i>Disease.</i>			
Pulmonary tuberculosis.....	1	1	2
Heart disease.....		1	1
Chronic nephritis.....		1	1
Disseminated tuberculosis.....		1	1
Lobar pneumonia.....		5	5
<i>External causes.</i>			
Railroad traumatism.....		1	1
Accidental drowning.....		4	4
Total.....	1	14	15

TABLE VI.—CAUSES OF DEATHS OF CIVIL POPULATION (EMPLOYEES AND NONEMPLOYEES) AND MILITARY AND PLACES WHERE CHARGEABLE.

Disease.	Pana- ma.	Colon.	Canal Zone.	Total.
<i>General diseases.</i>				
Malarial fever, estivo-autumnal.....			1	1
Malarial fever, tertian.....	2			2
Measles.....	1			1
Diphtheria and croup.....			1	1
Croup.....		1		1
Dysentery, unclassified.....			1	1
Purulent infection and septicemia.....	1			1
Septicemia.....			1	1
Tetanus.....	2			2
Pellagra.....	5			5
Tuberculosis of lungs.....	21	3	4	28
Acute miliary tuberculosis.....	1		1	2
Tuberculous meningitis.....	1			1
Pott's disease.....		1		1
Disseminated tuberculosis.....	6	1	2	9
Syphilis, period not stated.....	2			2
Cancer and other malignant tumors of the buccal cavity.....	1			1
Cancer and other malignant tumors of the stomach and liver.....		1		1
Cancer and other malignant tumors of the female genital organs.....	1			1
Cancer and other malignant tumors of other organs and of organs not specified.....	4			4
Chronic rheumatism and gout.....	1			1
Alcoholism, chronic.....			1	1
Pneumococcus meningitis.....	2			2
Cerebral hemorrhage, apoplexy.....		3		3
Softening of the brain.....	1			1
Tumor of the brain.....	1			1
Diseases of the ears.....	1			1

TABLE VI.—CAUSES OF DEATHS OF CIVIL POPULATION (EMPLOYEES AND NONEMPLOYEES) AND MILITARY AND PLACES WHERE CHARGEABLE—Continued.

Disease.	Pana- ma.	Colon.	Canal Zone.	Total.
<i>Diseases of the circulatory system.</i>				
Pericarditis.....	1	.....	.....	1
Acute endocarditis.....	1	.....	.....	1
Organic diseases of the heart.....	6	3	.....	9
Embolism and thrombosis.....	1	.....	.....	1
<i>Diseases of the respiratory system.</i>				
Acute bronchitis.....	2	6	1	9
Chronic bronchitis.....	.....	3	.....	3
Broncho-pneumonia.....	8	6	3	17
Pneumonia (unqualified).....	4	1	.....	5
Lobar pneumonia.....	6	5	1	12
Empyema.....	1	.....	.....	1
Asthma.....	1	.....	.....	1
<i>Diseases of the digestive system.</i>				
Acute gastritis.....	.....	1	.....	1
Diarrhea and enteritis (under 2 years).....	15	2	2	19
Colitis.....	7	1	.....	8
Diarrhea and enteritis (2 years and over).....	1	.....	.....	1
Hernia, intestinal obstructions.....	.....	1	.....	1
Intestinal obstructions.....	2	.....	1	3
Other diseases of the intestines.....	.....	.....	1	1
Doudenal ulcer.....	.....	.....	1	1
Abscess of liver (unqualified).....	1	.....	.....	1
Cholecystitis.....	1	.....	.....	1
Ankylostomiasis.....	1	.....	.....	1
<i>Nonvenereal diseases of the genito-urinary system and annexa.</i>				
Acute nephritis.....	1	2	.....	3
Bright's disease (chronic nephritis).....	5	5	1	11
<i>The puerperal state.</i>				
Puerperal septicemia.....	1	1	.....	2
Puerperal albuminuria and convulsions.....	.....	1	.....	1
<i>Diseases of the bones and of the organs of locomotion.</i>				
Diseases of the bones (tuberculosis excepted)...	1	.....	.....	1
<i>Diseases of early infancy.</i>				
Newborn child.....	.....	1	.....	1
Congenital debility, icterus, and sclerema.....	.....	.....	1	1
Premature birth.....	3	1	.....	4
Malnutrition.....	4	.....	1	5
<i>Affections produced by external causes.</i>				
Suicide by hanging or strangulation.....	.....	1	.....	1
Burns (conflagration excepted).....	1	.....	.....	1
Accidental drowning.....	.....	1	4	5

TABLE VI.—CAUSES OF DEATHS OF CIVIL POPULATION (EMPLOYEES AND NONEMPLOYEES) AND MILITARY AND PLACES WHERE CHARGEABLE—Continued.

Disease.	Pana- ma.	Colon.	Canal Zone.	Total.
<i>Affections produced by external causes—Contd.</i>				
Traumatism by other crushings (railroads, etc).	1	.....	.....	1
Railroad traumatism.....	1	.....	.....	1
Homicide by firearms.....	2	.....	.....	2
Other external violence.....	1	.....	.....	1
<i>Ill-defined diseases.</i>				
Cause of death not specified or ill defined.....	4	.....	1	5
Total.....	138	52	30	220
Stillbirths.....	15	5	3	23
Grand total.....	153	57	33	243

DEATHS OF NONRESIDENTS.¹

Residence.	Nationality.	Color.	Sex.	Age.	Diagnosis.
S. S. Peru (seaman).	Chile.....	White...	Male....	20	Accidental drowning.
West Indies.....	Cayman Island.	...do....	...do....	33	Lobar pneumonia.
Interior of Panama.	Panaman.	Black...	...do....	64	Shock and hemor- rhage following re- section of bowel.
S. S. Colon (seaman)	Porto Rico	White...	...do....	43	Tertiary syphilis.
Interior of Panama.	Panaman.	Black...	...do....	44	Chronic nephritis.
Do.....	Spain.....	White...	...do....	34	Syphilis.
S. S. Strathask (sea- man).	Scotland..	...do....	...do....	43	Accidental drowning.
Interior of Panama.	Ecuador..	...do....	...do....	52	Tuberculosis of colon.
United States.....	United States.	...do....	Female .	33	Embolism.

¹ Deaths of nonresidents are not included in the statistical charts relating to the cities of Panama and Colon or of the Canal Zone.

TABLE VII.—ADMISSIONS AND DEATHS

Diseases.	Ancon Hospital.											
	Employees.						Nonemployees.					
	Admissions.			Deaths.			Admissions.			Deaths.		
	White.			White.			White.			White.		
	Americans.	Europeans.	Black.	Americans.	Europeans.	Black.	Soldiers.	Others.	Black.	Soldiers.	Others.	Black.
<i>General diseases.</i>												
Typhoid fever.....								1	1			
Paratyphoid fever.....								1				
Malarial fever, estivo-autumnal.....		1	11				11	5	3			
Malarial fever, tertian.....	1	1					8					
Malarial fever, quartan.....							1					
Malarial fever, clinical.....		1	2				8	1	1			
Malarial fever, cachexia.....							1					
Measles.....			1						3			
Scarlet fever.....								1				
Diphtheria and croup.....			1									
Influenza.....	5		4				3	3				
Dysentery.....												
Dysentery, entamebic.....							1	1				
Dysentery, bacillary.....	1											
Dysentery, unclassified.....						1		1	1			1
Leprosy.....			1									
Erysipelas.....								1				
Chicken pox.....			4						1			
Yaws.....			1					1				
Acute infectious jaundice (Weil's disease).....			1									
Pellagra.....									2			1
Tuberculosis of the lungs.....		2	1		1	1			2			3
Acute miliary tuberculosis.....												1
Tuberculous meningitis.....									1			1
Tuberculosis of bones and joints.....								1				
Disseminated tuberculosis.....						1			3			3
Syphilis, primary.....	1		3						1			
Syphilis, secondary.....			2				4		2			
Syphilis, tertiary.....	2		13				2		1			
Syphilis, hereditary.....												
Syphilis, period not stated.....								1				
Gonococcus infection.....			1									
Gonorrhea.....	2	1	7				3	2				
Gonorrheal orchitis and epididymitis.....							1					
Gonorrheal ophthalmia.....									1			
Soft chancre.....	2		6				1	8				
Adenitis chancroidal.....			1				1					
Acute articular rheumatism.....												
Diabetes.....		1										
Anemia secondary, cause not determined.....			1						1			

TABLE SHOWING ADMISSIONS AND DEATHS IN

Diseases.	Ancon Hospital.											
	Employees.						Nonemployees.					
	Admissions.			Deaths.			Admissions.			Deaths.		
	White.			White.			White.			White.		
	Americans.		Black.	Americans.		Black.	Americans.		Black.	Americans.		Black.
	Americans.	Europeans.		Americans.	Europeans.		Soldiers.	Others.		Soldiers.	Others.	
<i>General diseases—Contd.</i>												
Alcoholism, acute.....												
Alcoholism, chronic.....								1			1	
Alcoholic psychosis.....								1				
Other chronic occupation poisonings.....								1			1	
<i>Diseases of the nervous system and of the organs of special sense.</i>												
Pneumococcus meningitis.....									1			1
Other diseases of the spinal cord.....								1				
Cerebral hemorrhage, apoplexy.....												
Softening of the brain.....												1
Paralysis without specified cause.....									1			
General paralysis of the insane.....									1			
Other forms of mental alienation.....								4	5			
Dementia precox.....									4			
Epilepsy.....			1						1			
Hysteria.....								1				
Neuritis.....	1						1	1	2			
Other diseases of the nervous system.....												
Neurasthenia.....							5					
Diseases of the eyes and their adnexa.....	2	1	7				3	1	4			
Diseases of the ears.....	1		1				7	2				1
<i>Diseases of the circulatory system.</i>												
Organic diseases of the heart	1						1	2	2			1
Angina pectoris.....												
Aneurysm.....												
Embolism and thrombosis.....												
Diseases of the veins (varices, hemorrhoids, phlebitis, etc.).....	1	1					2					

TABLE SHOWING ADMISSIONS AND DEATHS IN

[illegible]

TABLE SHOWING ADMISSIONS AND DEATHS

Diseases.	Ancon Hospital.											
	Employees.						Nonemployees.					
	Admissions.			Deaths.			Admissions.			Deaths.		
	White.			White.			White.			White.		
	Americans.	Europeans.	Black.	Americans.	Europeans.	Black.	Soldiers.	Others.	Black.	Soldiers.	Others.	Black.
<i>Diseases of the digestive system—Continued.</i>												
Ankylostomiasis.....								1	1			
Intestinal parasites.....			1				1	2				
Teniasis.....	1											
Acute appendicitis.....	3		2				1					
Chronic appendicitis.....							1					
Inguinal hernia.....	3		1				3	2	1			
Intestinal obstruction.....										1		
Other diseases of the intestines.....	1							5	1			
Constipation.....		1						2				
Duodenal ulcer.....			1				2		1			
Cirrhosis of the liver.....												
Biliary calculi.....								2				
Other diseases of the liver.....								1				
Other diseases of the digestive system (cancer and tuberculosis excepted).....			1									
<i>Nonvenereal diseases of the genito-urinary system and adnexa.</i>												
Acute nephritis.....									2			
Bright's disease (chronic nephritis).....	1		5			1		5				
Other diseases of the kidney and adnexa.....	1						1	3				
Diseases of the bladder.....								1				
Cystitis.....	1		1					1	1			
Diseases of the urethra, urinary abscess, etc.....	1		2					1				
Stricture of the urethra, nonvenereal.....		1	1									
Chronic prostatitis.....								1				
Nonvenereal diseases of the male genital organs.....		1						2				
Hydrocele.....			1				2					
Uterine tumor (noncancerous).....								2	1			
Other diseases of the uterus.....	1							4	6			
Metritis.....									2			

TABLE SHOWING ADMISSIONS AND DEATHS

Diseases.	Ancon Hospital.											
	Employees.						Nonemployees.					
	Admissions.			Deaths.			Admissions.			Deaths.		
	White.			White.			White.			White.		
	Americans.	Europeans.	Black.	Americans.	Europeans.	Black.	Soldiers.	Others.	Black.	Soldiers.	Others.	Black.
<i>Nonvenereal diseases of the genito-urinary system and adnexa—Continued.</i>												
Cysts and other tumors of the ovary.....								2	1			
Salpingitis and other diseases of the female genital organs.....								3	6			
<i>The puerperal state.</i>												
Normal labor.....								14	7			
Accidents of pregnancy.....								1				
Extra-uterine pregnancy.....									2			
Hyperemesis gravidarum....	1							2	1			
Abortion.....	1							4	2			
Other accidents of labor.....									2			
Puerperal septicemia.....												
Puerperal diseases of the breast.....									1			
<i>Diseases of the skin and of the cellular tissue.</i>												
Acute abscess.....		4	3						2			
Phlegmon and cellulitis....	1	1	4				1					
Dhobie itch.....	1											
Ulcer of the skin.....		2	1				1		1			
Ingrowing nail.....	1											
Other diseases of the skin and annexa.....							1	1				
<i>Diseases of the bones and of the organs of locomotion.</i>												
Diseases of the bones (tuberculosis excepted).....			2					1	1			
Mastoid abscess.....									1			1
Osteomyelitis.....								1				
Arthritis.....			3				1	1	2			
Amputations.....												
Other diseases of the organs of locomotion.....	1						2					

TABLE SHOWING ADMISSIONS AND DEATHS IN

Diseases.	Ancon Hospital.											
	Employees.						Nonemployees.					
	Admissions.			Deaths.			Admissions.			Deaths.		
	White.			White.			White.			White.		
	Americans.	Europeans.	Black.	Americans.	Europeans.	Black.	Soldiers.	Others.	Black.	Soldiers.	Others.	Black.
<i>Malformations.</i>												
Congenital malformations (stillbirth not included)...	1		1						1			
<i>Diseases of early infancy.</i>												
Newborn child.....								18	5			
Congenital debility, icterus, and sclerema.....									1			1
Malnutrition.....			1						5			
<i>Affections produced by external causes.</i>												
Poisoning by food.....	1		1						1			
Other acute poisonings.....												
Burns (conflagration excepted).....	1	1										
Traumatism by firearms.....							2					
Traumatism by cutting or piercing instruments.....	1		4				1	1				
Traumatism by fall.....	1		6				1					
Traumatism in mines and quarries.....		1										
Traumatism by machines.....			14						2			
Traumatism by other crushings (vehicles, railroads, landslides, etc.).....			1									
Injuries by animals.....									1			
Lightning.....												
Electricity (lightning excepted).....			1									
Fractures (cause not specified).....	1	1	3				2	2	3			
Dislocations.....			1									
Sprains.....			2									
Other external violence.....	2	3	10				4	2	4			
<i>Ill-defined diseases.</i>												
Ill-defined organic disease.....							1					
Cause of death not specified or ill-defined.....									1			1
Infections of undetermined origin.....	1		4				4					
No disease.....	1						6	12	7			
Total.....	60	30	161		1	4	122	173	141	2	2	19

THE HOSPITALS OF THE PANAMA CANAL—Continued.

Colon Hospital.												Total.											
Employees.						Nonemployees.						Employees.						Nonemployees.					
Admis- sions.			Deaths.			Admis- sions.			Deaths.			Admis- sions.			Deaths.			Admis- sions.			Deaths.		
W.			W.			W.			W.			W.			W.			W.			W.		
Americans.	Europeans.	Black.	Americans.	Europeans.	Black.	Soldiers.	Others.	Black.	Soldiers.	Others.	Black.	Americans.	Europeans.	Black.	Americans.	Europeans.	Black.	Soldiers.	Others.	Black.	Soldiers.	Others.	Black.
												1		1							1		
							1											19	5				
														1					1				1
														1					5				
1												2		1						1			
							1											1					
	2											1	1	2									
																		2					
		2					2	1				1		6				1	3	1			
							1					1		6				1	1				
													1										
						1								14				1		2			
1	2	7										1	2	8									
		1												1						1			
														1									
		4				1	1	1				1	1	7				3	3	4			
														1									
		1						1						3						1			
	1							1				2	4	10				4	2	5			
																		1					
																				1			1
								1				1		4				4		1			
		2										1		2				6	12	7			
22	13	60				5	6	20	20		2	82	43	221		1	9	128	197	161	2	4	21

TABLE VIII.—CONSOLIDATED

[A=white Americans; F=white

	Remaining May 1.			Admitted.			Died.		
	A.	F.	B.	A.	F.	B.	A.	F.	B.
ANCON HOSPITAL.									
Panama Canal employees.....	22	8	122	54	20	121	.....	.....	2
Panama Railroad employees.....	3	.....	56	6	10	40	.....	1	2
Panama pay patients.....	.....	.....	1	.....	.....	1	.....	.....	.....
Other pay patients.....	103	35	46	216	57	111	3	.....	12
Charity patients.....	5	3	29	14	8	15	1	.....	3
Total.....	133	46	254	290	95	288	4	1	19
COROZAL HOSPITAL.									
Panama Canal employees.....	.....	4	11	.....	.....	.....	.....	.....	.....
Panama Railroad employees.....	.....	.....	2	.....	.....	.....	.....	.....	.....
Panama pay patients.....	1	25	168	1	3	8	.....	.....	2
Other pay patients.....	3	2	3	.....	1	1	1	.....	.....
Charity patients.....	4	5	49	.....	.....	1	.....	.....	1
Total.....	8	36	233	1	4	10	1	.....	3
Grand total.....	141	82	487	291	99	298	5	1	22
Corozal farm.									
Panama Canal employees.....	.....	10	43	.....	2	8	.....	.....	.....
Chronic ward.									
Charity patients.....	.....	.....	30	.....	.....	3	.....	.....	.....
COLON HOSPITAL.									
Panama Canal employees.....	4	1	4	17	5	22	.....	.....	.....
Panama Railroad employees.....	.....	.....	7	5	8	38	.....	.....	5
Panama pay patients.....	.....	.....	1	.....	2	8	.....	.....	.....
Other pay patients.....	5	2	4	14	13	10	2	.....	2
Charity patients.....	.....	.....	.....	1	.....	2	.....	.....	.....
Total.....	9	3	16	37	28	80	2	.....	7
PALO SECO LEPER ASYLUM.									
Panama Canal employees.....	.....	.....	1	.....	.....	1	.....	.....	.....
Panama pay patients.....	.....	2	34	.....	.....	2	.....	.....	.....
Charity patients.....	.....	2	18	.....	.....	.....	.....	.....	.....
Total.....	.....	4	53	.....	.....	3	.....	.....	.....
GRAND TOTAL.									
Panama Canal employees.....	26	23	181	71	27	152	.....	.....	2
Panama Railroad employees.....	3	.....	65	11	18	78	.....	1	7
Panama pay patients.....	1	25	170	1	5	17	.....	.....	.....
Other pay patients.....	111	41	87	230	71	124	6	.....	16
Charity patients.....	9	10	126	15	8	21	1	.....	4
Total.....	150	99	629	328	129	392	7	1	29

Number of employees remaining in hospitals:

White..... 70

Colored..... 239

Total..... 309

HOSPITAL REPORT.

foreigners; B=blacks.]

Discharged.			Transferred.			Remaining May 31.			White.		Black.	Total.
A.	F.	B.	A.	F.	B.	A.	F.	B.	American.	Foreign.		
50	13	126	.....	.....	2	26	15	113	25.35	12.13	116.94	154.42
8	4	45	.....	.....	.....	1	5	49	3.64	3.26	47.58	54.48
.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	1.55	1.55
218	52	87	.....	1	3	98	39	55	92.77	39.77	55.58	188.12
18	6	16	.....	.....	1	.....	5	24	3.61	3.35	23.23	30.19
294	75	274	.....	1	7	125	64	242	125.37	58.51	244.88	428.76
.....	.....	1	.....	.....	.....	.....	4	10	.....	4.00	10.68	14.68
.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	2.00	2.00
.....	.....	1	.....	.....	1	2	28	172	1.65	26.19	169.19	197.03
2	1	.....	.....	.....	.....	.....	2	4	.87	2.00	3.35	6.22
.....	.....	.....	.....	.....	1	4	5	48	4.00	5.00	48.29	57.29
2	1	2	.....	.....	2	6	39	236	6.52	37.19	233.51	277.22
296	76	276	.....	1	9	131	103	478	131.89	95.70	478.39	705.98
.....	2	3	.....	.....	.....	.....	10	48	.....	9.52	45.00	54.52
.....	.....	2	.....	.....	.....	.....	.....	31	.....	.....	29.84	29.84
18	2	21	1	2	3	2	2	2	3.77	.74	4.38	8.89
4	3	24	.....	1	3	1	4	13	1.00	1.93	12.51	15.44
.....	.....	3	.....	2	6	.....	.....	.....	.....	.06	.58	.64
11	6	6	2	4	4	4	5	2	4.03	3.87	2.25	10.15
.....	.....	1	.....	.....	1	1	.....	.....	.25	.....	.06	.31
33	11	55	3	9	17	8	11	17	9.05	6.60	19.78	35.43
.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	1.45	1.45
.....	.....	.....	.....	.....	.....	.....	2	36	.....	2.00	35.09	37.09
.....	.....	.....	.....	.....	.....	.....	2	18	.....	2.00	18.00	20.00
.....	.....	.....	.....	.....	.....	.....	4	56	.....	4.00	54.54	58.54
68	17	151	1	2	5	28	31	175	29.12	26.39	178.45	233.96
12	7	69	.....	1	3	2	9	64	4.64	5.19	62.09	71.92
.....	.....	4	.....	2	8	2	28	173	1.65	26.25	171.32	199.22
231	59	93	2	5	7	102	48	97	97.67	47.64	96.27	241.58
18	6	19	.....	.....	3	5	12	121	7.86	10.35	119.42	137.63
329	89	336	3	10	26	139	128	630	140.94	115.82	627.55	884.31

TABLE IX.—CONSOLIDATED DISPENSARY REPORT.

EMPLOYEES TREATED IN QUARTERS.

	Remain- ing May 1.		Ad- mitted.		Died.		Dis- charged.		Trans- ferred.		Remain- ing May 31.		Days lost.		
	W.	B.	W.	B.	W.	B.	W.	B.	W.	B.	W.	B.	W.	B.	Total.
Ancon.....	2	.....	104	.....	.....	.....	106	.....	.....	.....	.....	.....	166	.....	166
Balboa.....	4	2	89	24	.....	.....	86	20	6	4	1	2	224	88	312
Pedro Mi- guel.....	.....	.....	28	.....	.....	.....	24	.....	2	.....	2	.....	64	.....	64
Paraiso.....	.....	.....	31	5	.....	.....	26	5	4	.....	1	.....	61	16	77
Gamboa.....	.....	.....	1	11	.....	.....	1	11	.....	.....	.....	.....	8	20	28
Gatun.....	1	.....	14	5	.....	.....	13	4	2	.....	.....	1	35	27	62
Colon.....	3	21	106	86	.....	.....	101	85	.....	.....	8	22	270	717	987
Total.	10	23	373	131	.....	.....	357	125	14	4	12	25	828	868	1,696

ALL CASES TREATED, BUT NOT EXCUSED.

	Employees.			Nonemployees.			Total.		
	W.	B.	Total.	W.	B.	Total.	W.	B.	Total.
Ancon.....	2,594	3,623	6,217	1,878	2,427	4,305	4,472	6,050	10,522
Balboa.....	3,342	3,787	7,129	874	884	1,758	4,216	4,671	8,887
Pedro Miguel.	573	894	1,467	618	236	854	1,191	1,130	2,321
Paraiso.....	1,025	2,951	3,976	806	881	1,687	1,831	3,832	5,663
Gamboa.....	54	212	266	38	424	462	92	636	728
Gatun.....	630	1,580	2,210	848	1,531	2,379	1,478	3,111	4,589
Colon.....	1,223	2,868	4,091	786	901	1,687	2,009	3,769	5,778
Total....	9,441	15,915	25,356	5,848	7,284	13,132	15,289	23,199	38,488

CONSOLIDATED ADMISSIONS REPORT.

	White.	Black.	Total.
Total admissions to hospitals, excluding Corozal farm and chronic ward	455	381	836
Total admissions of employees to quarters.....	373	131	504
Total	828	512	1,340
Less number of patients transferred between hos- pitals, and from quarters to hospitals, whose admissions are duplicated in above figures.....	27	30	57
Net admissions to hospitals and quarters.....	801	482	1,283
Net admissions of employees to hospitals and quarters.....	480	341	821
Annual average per thousand of admissions of em- ployees to hospitals and quarters.....	1,238.71	137.58	285.45

CONTAGIOUS AND INFECTIOUS DISEASES REPORTED.

Diseases.	Pan-ama.	Colon.	Canal Zone.	Total.
Measles.....	9	4	1	14
Typhoid fever.....	4	.....	1	5
Scarlet fever.....	1	.....	.....	1
Dysentery.....	.....	.....	4	4
Chicken pox.....	14	.....	3	17
Diphtheria.....	2	.....	3	5
Malaria fever.....	11	11	32	54
Tuberculosis.....	32	5	6	43
Whooping cough.....	.....	1	.....	1
Erysipelas.....	.....	.....	1	1
Diarrhea.....	.....	.....	1	1
Pneumonia.....	.....	1	.....	1
Gonorrheal ophthalmia.....	.....	.....	1	1
Pellagra.....	4	.....	.....	4
Syphilis.....	2	.....	.....	2
Yaws.....	1	.....	.....	.....

TABLE X.—NUMBER OF EMPLOYEES CONSTANTLY SICK IN HOSPITALS AND QUARTERS.

	White.	Colored.	Total.
Hospitals:			
Ancon Hospital.....	48.38	177.20	225.58
Colon Hospital.....	7.44	16.89	24.33
Palo Seco Leper Asylum.....	.....	1.45	1.45
Total.....	55.82	195.54	251.36
Quarters:			
Ancon.....	5.35	.....	5.35
Balboa.....	7.22	2.84	10.06
Pedro Miguel.....	2.05	.....	2.05
Paraiso.....	1.84	.52	2.36
Gamboia.....	.03	.36	.39
Gatun.....	1.13	.87	2.00
Colon.....	8.70	23.12	31.82
Total.....	26.32	27.71	54.03
	Hospit-als.	Quarters.	Total.
Average number of employees constantly sick:			
White.....	55.82	26.32	82.14
Colored.....	195.54	27.71	223.25
Total.....	251.36	54.03	305.39
Average number of employees constantly sick per 1,000:			
White.....	12.00	5.66	17.66
Colored.....	6.57	.94	7.51
Total.....	7.31	1.28	8.59

TABLE XI.—AVERAGE LENGTH OF STAY IN HOSPITALS OR QUARTERS FOR EACH ADMISSION OF SICK EMPLOYEE.

	White.	Black.	Total.
Hospitals:			
Ancon Hospital.....	10.45	26.02	21.36
Colon Hospital.....	5.90	10.39	8.79
Quarters:			
Ancon.....	1.95	.....	1.95
Balboa.....	2.90	3.54	3.03
Pedro Miguel.....	2.45	.....	2.45
Paraiso.....	2.03	3.20	2.20
Gamboa.....	8.00	1.77	2.29
Gatun.....	2.40	6.75	3.31
Colon.....	2.69	11.22	6.59

TABLE XII.—FINANCIAL STATEMENT—DEPARTMENT OF HEALTH.

	Apr., 1916.	Mar., 1916.	Apr., 1915.
Administration: Chief health office.....	\$357.97	\$1,348.00	\$570.88
Hospital division:			
Ancon Hospital.....	24,322.83	24,974.26	26,514.68
Board of Health Laboratory.....	1,534.14	1,388.90	1,412.42
Corozal farm.....	5,831.07	6,050.23	3,494.14
Chronic ward.....	236.34	218.97	219.71
Colon Hospital.....	3,845.21	3,842.12	3,551.01
Palo Seco Leper Asylum.....	1,572.57	1,564.08	1,828.97
Santo Tomas Hospital.....	887.62	714.75	909.18
Medical storehouse.....	1,582.84	817.00	863.92
Depreciation.....	783.19	.....	.....
	40,596.81	39,570.31	38,794.03
District dentists.....	65.64	¹ 125.31	5.88
Dispensaries:			
Naos Island.....	.....	.....	124.43
Balboa.....	1,298.87	1,124.83	933.23
Corozal.....	.....	.....	648.96
Pedro Miguel.....	478.00	451.04	476.86
Paraiso.....	662.64	600.58	535.88
Culebra.....	.....	123.08	134.51
Gamboa.....	162.99	149.34	142.77
Gatun.....	956.44	640.53	596.43
Toro Point.....	29.09	.....	18.20
	3,653.67	2,964.09	3,617.15
Sanitary division:			
General inspector.....	50.00	50.00	50.00
Health office, Panama.....	3,241.08	3,015.54	2,959.66
Street cleaning.....	3,879.13	4,081.38	4,273.73
Health office, Colon.....	2,682.77	3,332.20	1,439.21
Street cleaning.....	2,156.00	2,229.52	1,903.55
Zone sanitation—			
Ancon.....	1,196.21	4,070.88	757.84
Balboa.....	2,724.94	3,207.32	617.47
Corozal.....	1,025.56	391.92	1,315.70
Pedro Miguel.....	2,737.04	4,007.73	1,989.80
Culebra.....	.....	.....	357.70
Frijoles.....	69.76	69.07	99.77

¹ Credit.

TABLE XII.—FINANCIAL STATEMENT—DEPARTMENT OF HEALTH—
Continued.

	Apr., 1916.	Mar., 1916.	Apr., 1915.
Sanitary Division—Continued.			
Zone sanitation—Continued.			
Gatun.....	\$5,250.44	\$3,548.86	\$1,165.01
Cristobal-Mount Hope.....	1,427.07	2,426.42	1,522.40
	26,440.00	30,430.84	18,451.84
Quarantine division:			
Chief quarantine office.....	38.66	160.75	439.73
Balboa-Panama.....	1,826.35	2,081.72	1,647.96
Colon-Cristobal.....	3,031.18	2,807.74	2,659.55
	4,896.19	5,050.21	4,747.24
RECAPITULATION.			
Chief health office.....	357.97	1,348.00	570.88
Hospital division.....	40,596.81	39,570.31	38,794.03
Dispensaries.....	3,653.67	2,964.09	3,617.15
Sanitary division.....	26,440.00	30,430.84	18,451.84
Quarantine division.....	4,896.19	5,050.21	4,747.24
	75,944.64	79,363.45	66,181.14

April, 1916, last available figures.

TABLE XIII.—ANCON HOSPITAL.
REPORT OF NATIONALITY OF PATIENTS TREATED.

	Total number treated.	American.		Other nations.	
		White.	Black.	White	Black.
Hospital:					
Panama Canal employees..	347	76	.....	28	243
Panama Railroad employ- ees.....	115	9	.....	10	96
Panama Government pay patients.....	2	.....	.....	.....	2
Other pay patients.....	468	219	.....	92	157
Charity patients.....	74	19	.....	11	44
Total.....	1,106	323	.....	141	542
Asylum:					
Panama Canal employees...	15	.....	.....	4	11
Panama Railroad employ- ees.....	2	.....	.....	.....	2
Panama Government pay patients.....	206	.....	2	28	176
Other pay patients.....	10	3	.....	3	4
Charity patients.....	59	4	.....	5	50
Total.....	292	7	2	40	243
Grand total.....	1,398	330	2	181	785
Soldiers.....	200	200	.....	.....	.....
Chronics.....	33	.....	.....	.....	33
Farm (cripples).....	63	.....	.....	12	51

REPORT OF DAYS LOST IN HOSPITAL.

	Total.	Ameri- can.	Other white.	Black.
Hospital:				
Panama Canal employees.....	4,787	786	376	3,625
Panama Railroad employees.....	1,689	113	101	1,475
Panama Government pay patients..	48			48
Other pay patients.....	5,832	2,876	1,233	1,723
Charity patients.....	936	112	104	720
Total.....	13,292	3,887	1,814	7,591
Asylum:				
Panama Canal employees.....	455		124	331
Panama Railroad employees.....	62			62
Panama Government pay patients..	6,108	51	812	5,245
Other pay patients.....	193	27	62	104
Charity Patients.....	1,776	124	155	1,497
Total.....	8,594	202	1,153	7,239
Grand total.....	21,886	4,089	2,967	14,830
Soldiers.....	1,864	1,864		
Chronics.....	925			925
Farm (cripples).....	1,690		295	1,395

Average cost per subsistence per day, \$0.2236.

WARD LABORATORY REPORT.

Blood examinations, total number.....	454
Estivo-autumnal.....	33
Tertian.....	12
Differential counts.....	16
Hemoglobulin estimations.....	66
Leucocyte counts.....	57
Red blood counts.....	3
Stool examinations, total number.....	605
Ameba.....	1
Ascaris lumbricoides.....	14
Ciliated nomads.....	23
Entameba (hystolitica and tetragena).....	4
Guaiac tests.....	5
Pus and blood.....	52
Stronglodes.....	14
Tenia saginata dispar (ova).....	2
Tricocephalus dispar.....	30
Uncinaria (ova).....	20
Urine examinations, total number.....	1,369
Albumen.....	335
Bile.....	21
Casts.....	217
Epithelia.....	559
Indicon.....	57
Pus and blood.....	467
Sugar—positive 8, negative 188.....	196
Sputum examinations, total number.....	253
Positive for tubercle bacilli.....	24
Smear examinations, total number.....	33
Urethral.....	19
Vaginal.....	6
Spinal fluid.....	5
Fluid from knee.....	1
Fluid from chest.....	1
Fresh blood smear.....	1

REPORT OF SURGICAL OPERATIONS.

	Number.	Died.
Operations on bones: Digits, multiple.....	1	.....
Operations on bones:		
Ostectomy.....	3	.....
Wiring of fractures, simple.....	3	.....
Mayo bunion, single 1, bilateral 2.....	3	.....
Adenectomy:		
Inguinal, single.....	22	.....
Inguinal, double.....	8	.....
Femoral.....	1	.....
Herniotomy:		
Inguinal, single.....	7	.....
Inguinal, double.....	1	.....
Ventral.....	2	.....
Genito-urinary tract:		
Prostatectomy.....	1	.....
Varicocele, radical cure.....	2	.....
Hydrocele, single, radical cure.....	3	.....
Hydrocele, double, radical cure.....	1	.....
Epididymotomy.....	15	.....
Curettagc uteri.....	8	.....
Perineoplasty.....	3	.....
Obstetrical: Version.....	1	.....
Rectum:		
Hemorrhoids, radical cure.....	11	.....
Fistula in anus, excision of.....	2	.....
General:		
Thyroidectomy.....	1	.....
Varicose veins, excision of.....	4	.....
Tenorrhaphy.....	1	.....
Excision of surface neoplasms.....	3	.....
Plastic operation for congenital defect.....	1	.....
Plastic operation for severe injuries.....	1	.....
Laparotomy:		
For general peritonitis (not traumatic or appendicial).....	1	1
For intestinal obstruction.....	2	.....
For tuberculous peritonitis.....	1	.....
Exploratory.....	1	.....
Gastrotomy.....	1	.....
Gastroenterostomy.....	1	.....
Enterectomy.....	1	1
Appendectomy.....	7	.....
Appendectomy with local peritonitis.....	3	.....
Cholecystotomy.....	1	.....
Supravaginal hysterectomy.....	7	.....
Hysteromyomectomy.....	2	.....
Oophorectomy.....	1	.....
Suspensio-uteri.....	3	.....
Minor operations, various.....	98	.....

REPORT OF OPERATIONS, EYE AND EAR CLINIC.

Adenoidectomy.....	13
Cataract extraction.....	2
Evisceration.....	1
Enucleation.....	1
Pterygium excision.....	7
Submucous resection.....	9
Sinusotomy, frontal.....	1
Tonsillectomy.....	25
Turbinectomy.....	1
Plastic on face.....	1

REPORT OF OPERATIONS, EYE AND EAR CLINIC—Continued.

Minor operations:		
Eye.....	2	
Throat.....	1	
		3
Total.....		64
Refractions.....		125

REPORT OF OUT-PATIENT DEPARTMENT.

Clinic.	Total visits.	New cases.	Pay cases.	Prescriptions.
Medical.....	266	196	52	231
Surgical.....	219	130	16	57
Eye and ear.....	602	249	11	309
Total.....	1,087	575	79	597

MONTHLY VACCINATION REPORT.

Number of adults vaccinated.....	85
Number of "takes".....	14

REPORT OF BOARD OF HEALTH LABORATORY.

Bacteriological examinations:	
Blood cultures.....	25
Throat cultures.....	31
Urines.....	29
Stools.....	27
Sputum.....	3
Pathological fluids, exudates, etc.....	6
Cultures of autopsies.....	3
Wasserman reactions.....	694
Leper suspects.....	6
Agglutination reactions.....	7
Autogenous vaccines prepared.....	6
Antityphoid vaccinations.....	7
Trypanosomes in horses.....	2
Smallpox vaccination.....	1
Antityphoid inoculations.....	9
Animal inoculations.....	5
Dairy milk from Panama, bacteriological counts.....	5
Dairy milk from Corozal farm, bacteriological counts.....	31
Dark-field examinations.....	12
Blood for malaria.....	1
Bacteriological examination of oysters.....	1
Chemical examinations of milk from private dairies supplying cities of Panama and Colon.....	2
Mother's milk.....	5
Urines.....	10
Fat determinations of milk from Corozal dairy.....	15
Butyric acid tests.....	7
Examination of spots on clothing.....	1
Specific gravity determination of a Stovain solution.....	1
Examination of near beer.....	2
Surgical tissues neoplasms reported.....	38
Autopsies performed.....	25
Animals autopsied.....	6
Pathological tissues prepared, paraffin.....	328

REPORT OF BOARD OF HEALTH LABORATORY—Continued.

Rats examined:

<i>Mus musculus</i>	568
<i>Mus norvegicus</i>	875
<i>Mus alexandrinus</i>	17
<i>Mus rattus</i>	225
	— 1,685
Miscellaneous.....	1
Bodies embalmed.....	4
Interments at Corozal.....	16
Shipped to Gatun.....	1
Cremations.....	14

COROZAL HOSPITAL.

STATEMENT OF COMMITMENTS, DISCHARGES, AND DEATHS.

COMMITMENTS.

	Male.	Female.
From Canal Zone, first admission.....	1	3
From Canal Zone, second admission.....	1	.....
From Panama Government, first admission.....	4	5
From Panama Government (retransfer from Ancon Hospital).....	¹ 1	.....
Total.....	7	8

¹ Had been transferred to Ancon Hospital for surgical treatment.

DISCHARGES.

	Well.		Improved.		Unimproved.	
	Male.	Female.	Male.	Female.	Male.	Female.
Antigua.....	.....	.....	.....	.....	¹ 1	.....
Nevis.....	¹ 1	.....	.....	.....	.....	.....
Panama.....	.....	.....	.....	.....	1	.....
Scotland.....	.....	.....	² 1	.....	.....	.....
St. Lucia.....	1	.....	.....	.....	.....	.....
United States.....	.....	.....	.....	.....	² 2	.....
Total.....	2	.....	1	.....	4	.....

¹ 2 transferred to Ancon Hospital for surgical treatment.² 1 Deported to Scotland; 2 deported to United States.

DEATHS.

Medical diagnosis.	Mental diagnosis.	Male.	Female.
Disseminated tuberculosis; tuberculous meningitis.	Infective exhaustive psychosis.	1	.....
Tuberculosis of the lungs; epilepsy..	Epilepsy.....	1	.....
Dysentery; tuberculosis of the lungs.	Infective exhaustive psychosis.	1	.....
Softening of the brain; arteriosclerosis; carbuncle.	Dementia praecox, catatonic.	.....	1

TABLE XIV.—COLON HOSPITAL.
NATIONALITY.

	White Ameri- can.	White foreign.	Black.	Total.
Panama Canal employees.....	21	6	26	53
Panama Railroad employees.....	5	8	45	58
Panama pay.....		2	9	11
Other pay.....	19	15	14	48
Charity cases.....	1		2	3
	46	31	96	173

Cost of subsistence per patient per day, 34 cents.

LABORATORY REPORT.

Blood examinations.....	53
Estivo-autumnal.....	15
Tertian.....	2
Hemoglobin.....	4
White blood counts.....	12
Red blood counts.....	2
Differential counts.....	8
Stool examinations.....	26
Pus.....	8
Ciliated monads.....	3
Hookworm.....	2
Blood.....	2
Urine examinations.....	168
Albumen.....	66
Sugar.....	2
Casts.....	36
Epithelia.....	101
Pus.....	56
Blood.....	2
Triple phosphates.....	15
Calcium oxalates.....	2
Sputum examinations.....	16
Positive for tubercle bacilli.....	4
Smear examinations.....	3
Urethral.....	3

SURGICAL OPERATIONS.

Herniotomy:	
Inguinal, single.....	2
Strangulated.....	1
Genito-urinary tract: Curetage uteri.....	1
Obstetrical: Version.....	1
Laparotomy:	
Appendectomy.....	1
Salpingo-oophorectomy, bilateral.....	1
Minor operations, various.....	7
Minor operations, various (dispensary).....	152

¹ Died.

TABLE XV.—PALO SECO LEPER ASYLUM.

NATIONALITY OF PATIENTS.

Class.	Number treated.		Americans.		Others.	
	White.	Black.	White.	Black.	White.	Black.
Panama Canal employees.....		2				2
Panama pay cases.....	2	36			2	36
Charity cases.....	2	18			2	18
Total.....	4	46			4	56

Cost of subsistence per patient, per day, 26 cents.

TABLE XVI.—SANTO TOMAS HOSPITAL.

	Remain- ing May 1.	Admit- ted.	Dis- charged.	Died.	Remain- ing May 31.
Pay cases.....	25	89	78	4	32
Charity cases.....	413	821	755	72	407
Total.....	438	910	833	76	439

Average number of patients constantly sick..... 438
 Total number of days' treatment..... 13,596
 Average number of days' treatment for each patient..... 10

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		White.	Black.	White.	Black.
Pay cases.....	114	3		41	70
Charity cases.....	1,234	9	2	116	1,107
Total.....	1,348	12	2	157	1,177

DISPENSARY REPORT.

Class.	White.	Black.	Total.
Natives.....	36	842	878
Foreigners.....	85	526	611
Total.....	121	1,368	1,489

DISEASES TREATED.

Typhoid fever.....	1
Malaria.....	52
Measles.....	3
Influenza.....	18
Dysentery.....	5
Leprosy.....	2
Other epidemic diseases.....	10
Purulent infection and septicemia.....	4
Anthrax.....	1
Pellagra.....	4
Tuberculosis of the lungs.....	15
Acute miliary tuberculosis.....	1
Tuberculosis of other organs.....	1
Syphilis.....	68
Soft chancre.....	10
Gonococcus infection.....	39
Cancer and other malignant tumors of the female genital organs.....	2
Cancer and other malignant tumors of other organs.....	1
Other tumors.....	2
Acute articular rheumatism.....	2
Alcoholism (acute or chronic).....	10
Other forms of mental alienation.....	6
Epilepsy.....	3
Hysteria.....	4
Neuralgia and other diseases of the nervous system.....	3
Other diseases of the eyes and their annexa.....	12
Organic diseases of the heart.....	6
Angina pectoris.....	1
Diseases of the arteries.....	8
Diseases of the veins.....	10
Diseases of the lymphatic system.....	33
Diseases of the thyroid body.....	1
Acute bronchitis.....	27
Broncho-pneumonia.....	1
Pneumonia.....	4
Pleurisy.....	4
Asthma.....	1
Other diseases of the mouth and annexa.....	2
Diseases of the pharynx.....	15
Diarrhea and enteritis (under 2 years).....	1
Diarrhea and enteritis (2 years and over).....	5
Ankylostomiasis.....	35
Intestinal parasites.....	3
Appendicitis and typhlitis.....	4
Hernias, intestinal obstructions.....	13
Diseases of the anus and fecal fistulas.....	1
Other diseases of the intestines.....	5
Cirrhosis of the liver.....	1
Biliary calculi.....	1
Other diseases of the liver.....	2
Simple peritonitis.....	1
Bright's disease (chronic nephritis).....	25
Diseases of the bladder.....	7
Diseases of the urethra.....	6
Nonvenereal diseases of the male genital organs.....	7
Uterine hemorrhage.....	2
Uterine tumor.....	3
Metritis.....	12
Other diseases of the uterus.....	4
Salpingitis and other diseases of the female genital organs.....	11
Nonpuerperal diseases of the breast.....	2
Normal labor.....	64
Accidents of pregnancy.....	21
Puerperal hemorrhage.....	1
Other accidents of labor.....	1
Furuncle.....	2
Acute abscess.....	8
Other diseases of the skin and annexa.....	29

DISEASES TREATED—Continued.

Diseases of the bones.....	5
Diseases of the joints.....	9
Congenital malformation.....	4
Nursling discharged from hospital without disease.....	65
Suicide by poisoning.....	1
Other acute poisonings.....	3
Burns (conflagration excepted).....	3
Traumatism by firearms.....	16
Fractures.....	13
Other external violence.....	20
Ill-defined organic disease.....	2
Diseases not specified or ill defined.....	3
No disease.....	17
Total.....	833

SURGICAL OPERATIONS.

	Number.	Died.
Amputations:		
Forearm.....	1	.....
Leg.....	1	.....
Digits, multiple.....	1	.....
Ostectomy.....	1	.....
Wiring of fractures, single.....	1	.....
Adenectomy:		
Cervical.....	1	.....
Inguinal, single.....	2	.....
Inguinal, double.....	5	.....
Herniotomy:		
Inguinal, single.....	7	.....
Inguinal, double.....	1	.....
Femoral.....	1	.....
Strangulated.....	1	1
Nephrectomy.....	1	.....
Urethrotomy external.....	3	.....
Hydrocele, single, radical cure.....	3	.....
Orchidectomy.....	2	.....
Curetage uteri.....	8	.....
Vaginal punctures.....	1	.....
Caesarian section, abdominal.....	2	.....
Hemorrhoids, radical cure.....	10	.....
Fistula in anus, excision of.....	2	.....
Thyroidectomy.....	1	.....
Varicose veins, excision of.....	1	.....
Myorrhaphy.....	1	.....
Excision of surface neoplasms.....	2	.....
Gunshot wounds of soft parts, operation for.....	1	.....
Plastic operation for congenital defect.....	2	.....
Plastic operation for severe injuries.....	2	.....
Plastic operation for effects of disease.....	19	.....
Skin graft.....	16	.....
Gastro-enterostomy.....	1	.....
Appendectomy.....	3	.....
Abscess of liver, laparo-hepatotomy for.....	1	.....
Pan-hysterectomy.....	3	.....
Supravaginal hysterectomy.....	3	.....
Myomectomy.....	1	1
Salpingectomy:		
Single.....	1	.....
Double.....	1	.....
Salpingo-cophorectomy.....	4	.....
Ovarian cystotomy.....	2	.....
Suspensio-uteri.....	7	.....

SURGICAL OPERATIONS—Continued.

	Number.	Died.
Plastic operation for chronic pelvic peritonitis.....	1	.....
For eutopic gestation.....	3	.....
Gunshot wound of abdomen.....	1	1
Stab wound of abdomen.....	1	.....
Major operations, various other.....	1	1
Minor operations, various other.....	34	.....
Mastoidectomy.....	3	.....
Cataract extractions.....	2	.....
Tonsillectomy.....	11	.....
Pterygium.....	1	.....
Chalazion excision.....	1	.....
Total.....	185	4

TABLE XVII.—SANITATION.

The following is a summary of sanitary work performed and material expended during the month of May, 1916, in the Canal Zone:

Work requests of supply department:	
Grass cutting.....	16
Screening.....	2
Miscellaneous.....	4
Work requests on municipal engineering department.....	21
Work requests on other departments.....	3
Notices served to abate nuisances.....	1
Arrests and convictions.....	3
Closets, inspections of.....	845
Stores, inspections of.....	40
Shops, inspections of.....	79
Garbage cans emptied.....	2,930
Closets disinfected.....	906
Rat traps in use.....	435
Rats destroyed.....	468
Adult anopheles caught.....	5,509
Adult culices caught.....	14,769
Stegomyia destroyed.....	71
Larvacide used..... gallons.....	613
Crude oil used..... do.....	10,493
Kerosene used..... do.....	654

SUMMARY OF ROUTINE WORK DONE BY PANAMA HEALTH OFFICE.

Mosquito, rat, and fly work:	
Linear feet of ditches cleaned and maintained.....	43,345
Linear feet of new ditches dug.....	2,223
Number of cubic yards of earth used in filling.....	None.
Gallons of larvacide used.....	750
Gallons of crude oil used.....	2,540
Square yards of pools oiled.....	168,589
Water containers treated.....	14,936
Mosquito-breeding places found (stegomyia, 190).....	314
Fly-breeding places found.....	69
Flies trapped, quarts (13,000 per quart).....	62
Number of rats killed.....	1,303
Number of room disinfections.....	10
Square feet of vegetation removed.....	236,620
Garbage collection:	
Number of loads of garbage removed to dump.....	4,520
Number of cubic yards of garbage removed to dump.....	10,305
Total number of cans of garbage emptied.....	42,287

TABLE XVII.—SANITATION—Continued.

Buildings:	
Number of buildings inspected.....	5,046
Number of plans for new buildings approved.....	37
Number of permits issued for repairs to old buildings.....	110
Total number of building permits issued.....	147
Number of buildings condemned.....	15
Number of buildings demolished (stables 2).....	3
Number of stables condemned.....	2
Street cleaning:	
Average number of square yards of streets cleaned daily.....	600,000
Average number of square yards sprinkled daily.....	45,000
Number of private properties cleaned.....	3
Number of notices served and nuisances abated.....	338
Cementing tree cavities:	
Total number of trees treated in entire city.....	258
Approximate number of holes ("containers") closed.....	918
Average cost per tree.....	\$0.084

MONTHLY WORK REPORT FOR COLON AND CRISTOBAL AND MOUNT HOPE.

Sanitation, Colon-Cristobal:	
Square yards street cleaned.....	4,050,652
Square yards street sprinkled.....	67,200
Square yards alleys maintained.....	676,000
Number of private properties cleaned.....	740
Cubic feet fumigated.....	3,024
Number of rats caught.....	141
Number of dogs caught.....	76
Number of dogs killed.....	50
Loads of yard garbage disposed of.....	635
Number of cans garbage (cubic yards), 2,345.....	67,339
Colon dump maintained.....	
Linear yards ditches maintained.....	893
Acres of vegetation removed—	
Colon.....	3
Quarantine station.....	2½
Panama Railroad properties, Colon.....	6½
Washington Hotel.....	3½
Parkway and E Street maintained.....	
Square yards oiled.....	50,570
Number of receptacles treated.....	40,170
Number of mosquito-breeding places destroyed.....	81
Number of fly-breeding places destroyed.....	6
Number of buildings inspected.....	9,102
Gallons of larvacide used in Colon.....	116.04
Gallons of crude oil used in Colon.....	1,750
Number of nuisances abated.....	246
Buildings, Colon:	
Number of building plans approved.....	7
Number of permits to occupy issued.....	23
Number of permits to repair issued.....	61
Number of bills collected.....	159
Sewers, Colon:	
Number of new connections made during the month.....	16
Total number of connections made to date.....	1,306
Number of houses in which connections were made.....	1
Outstanding permits.....	68
Sanitation, Cristobal:	
Number of cans garbage (cubic yards, 745).....	14,623
Loads of yards garbage handled.....	210
Square yards of grading on fill at Camp Bierd.....	4,300
Acres of vegetation removed.....	2
Number of receptacles treated.....	7,500
Square yards oiled.....	7,475
Gallons of larvacide used.....	3
Gallons of crude oil used.....	700
Number of buildings inspected.....	1,150
Number of nuisances abated.....	50

TABLE XVII.—SANITATION—Continued.

Sanitation, Mount Hope:	
Number of cans garbage (144 cubic yards).....	1,085
Square yards oiled.....	200,700
Number of receptacles treated.....	14,850
Number of mosquito-breeding places destroyed.....	146
Number of mosquitoes caught in barracks. Anopheles.....	1,476
Number of mosquitoes caught in steamships—	
Anopheles.....	28
Culex.....	36
Gallons of larvacide used.....	50
Gallons of crude oil used.....	6,993
Mount Hope Cemetery maintained.....	
Linear yards of ditches maintained.....	10,110
Square yards of vegetation removed.....	109,650
Number of burials during month.....	57

TABLE XVIII.—CONSOLIDATED REPORT OF QUARANTINE TRANSACTIONS AT THE PORTS OF BALBOA-PANAMA AND COLON-CRISTOBAL.

Number of vessels inspected and passed.....	187
Number of vessels held in quarantine.....	22
Total number of vessels entered.....	209
Number of special inspections made to enforce compliance with antiplague and mosquito breeding regulations.....	143
Number of vessels fumigated on arrival.....	16
Number of crew examined.....	10,973
Number of passengers examined.....	3,929
	14,902
Number of supplementary inspections.....	3,135
Number of stowaways inspected.....	3
Number of persons vaccinated at port of arrival because of compulsory-vaccination law.....	369
Number of persons vaccinated at port of departure or en route because of compulsory-vaccination law.....	1,617
	1,986
Number of persons held in quarantine at the detention houses to complete period of incubation of yellow fever and bubonic plague.....	341
Number of persons held in quarantine on board vessels to complete period of incubation of yellow fever and bubonic plague.....	2,316
	2,657
Total number of persons landed from foreign ports:	
Cabin.....	1,606
Steerage.....	1,024
	2,630
Total number of persons embarked for foreign ports:	
Cabin.....	1,809
Steerage.....	1,094
	2,903
Total number of persons arriving from coast towns on small launches and sailing craft.....	2,607
Total number of persons sailing for coast towns on small launches and sailing craft.....	1,634
Apparent increase for month from coast towns.....	973

TABLE XVIII.—CONSOLIDATED REPORT OF QUARANTINE TRANSACTIONS AT THE PORTS OF BALBOA-PANAMA AND COLON-CRISTOBAL—Continued.

Apparent decrease for month from foreign ports:	
Cabin.....	203
Steerage.....	70
	273
Number of persons rejected and deported.....	20
Number of bills of health issued or viséed.....	69
Number of inspections of docks.....	22
Number of inspections of vessels at docks.....	54
Total number of persons landed.....	5,237
Less number for Pacific ports.....	270
	4,967
Total number of persons sailing.....	4,537
Total apparent increase for month.....	430

IMMIGRATION REPORT FOR COLON AND CRISTOBAL.

From—	Cabin.	Steerage.
Europe.....	19	14
United States.....	585	16
Jamaica and West Indies.....	52	185
Venezuela.....	16	1
Colombia.....	96	110
Cuba.....	21	15
Costa Rica.....	159	43
Bocas del Toro.....	33	126
Coast towns.....		145
Total.....	981	655

Grand total.....	1,636
Men.....	731
Women.....	414
Children.....	228
United States troops.....	118
Unclassified.....	145
	1,636

QUARANTINE, BOCAS DEL TORO.

Vessels inspected and passed.....	20
Number of crew inspected and passed.....	1,419
Number of passengers inspected and passed.....	249
Passengers in transit, inspected and passed.....	168

No quarantinable disease has appeared in this port, and the health conditions of the port and surrounding territory continue good.

TABLE XIX.—STATEMENT OF QUININE ISSUED.

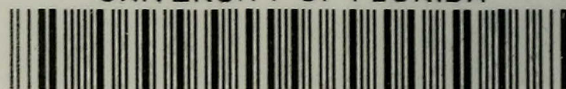
Quinine sulphate.....	kilos..	21.00
Pounds advoirdupois.....		46.29

TABLE XX.—PERSONNEL REPORT.

	May, 1916.			April, 1916.	May, 1915.
	Gold em- ployees.	Silver em- ployees.	Total em- ployees.	Total em- ployees.	Total em- ployees.
Chief health office.....	4	-----	4	4	3
Medical storehouse.....	4	4	8	8	7
Quarantine division.....	13	34	47	45	43
Health office, Panama.....	12	148	160	151	154
Health office, Colon ¹	9	172	181	163	139
Ancon Hospital.....	118	256	374	368	327
Colon Hospital.....	16	25	41	41	36
Santo Tomas Hospital.....	6	-----	6	6	5
Palo Seco Leper Asylum.....	2	17	19	22	25
Zone sanitation.....	7	128	135	117	110
Hospital farm, Corozal.....	2	56	58	58	53
Dispensaries:					
Balboa.....	4	2	6	6	6
Corozal.....	-----	-----	-----	-----	4
Gamboa.....	1	-----	1	1	1
Gatun.....	2	2	4	4	4
Naos Island.....	-----	-----	-----	-----	2
Paraiso.....	2	2	4	4	4
Pedro Miguel.....	2	1	3	3	3
Total.....	204	847	1,051	1,001	926

¹ Includes employees at Cristobal and Mount Hope.

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