

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

D. C. HOWARD
Lieutenant Colonel, Medical Corps, United States Army,
Chief Health Officer, Balboa Heights,
Canal Zone

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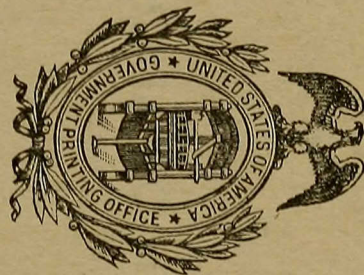
WASHINGTON
1916

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LETTER OF TRANSMITTAL.

THE PANAMA CANAL, CANAL ZONE,
HEALTH DEPARTMENT,
Balboa Heights, September 9, 1916.

Maj. Gen. GEO. W. GOETHALS,
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 August, 1916.

Very respectfully,

D. C. HOWARD,
Chief Health Officer.

GENERAL REMARKS.

No disease of a quarantinable nature originated on or was brought to the Isthmus during the month.

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

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

No case of smallpox has been contracted on the Isthmus since 1907.

VITAL STATISTICS.

EMPLOYEES.

The health of the employees remained good during the month. The following statistics are based upon the number of names appearing on the rolls for the preceding month, which was 33,609.

The total number of admissions to hospitals and quarters was 790, a rate of 282.06.¹ as compared with 262.11 for the preceding month and 335.44 for the corresponding month of last year.

The total number of deaths from all causes was 10; of these 8 died from disease, giving a death rate of 2.86, as compared with 2.49 for the preceding month and 3.99 for the corresponding period of last year.

The constantly noneffective rate was 8.06, as compared with 8.35 for the preceding month and 10.22 for the corresponding period of last year.

The total admission rate for malaria, hospitals, and quarters was 29.99, as compared with 42.26 for the preceding month and 72.28

¹ All morbidity and mortality rates are computed as equivalent annual per thousand.

for August, 1915. The total noneffective rate was 1.13, as compared with 1.41 for last month and 1.63 for the month of August, 1915.

The diseases causing the highest admission rates to hospital, in the order of their numerical importance, were: Malaria, venereal diseases, diseases of the digestive system, diseases of the circulatory system, and diseases of the respiratory system. These five classes of diseases caused 50 per cent of all admissions to hospitals; 18 per cent of all admissions to hospitals were caused by malaria.

There was one admission for typhoid fever during the month of August, giving an admission rate of 0.36, as compared with a rate of 0.71 for the preceding month and 0.33 for the corresponding month of last year.

EFFECTS OF RACE.

The admission rate to hospital and the death rate from disease were 99.98 and 3.31, respectively, for black employees, as compared with 91.78 and 2.44 for last month and 127.30 and 3.44 for the corresponding month of last year. For white employees the admission rate to hospital and the death rate from disease were 228.79 and 0.00, respectively, as compared with 283.09 and 2.83 for the preceding month and 367.71 and 7.77 for the corresponding period of last year.

The admission rate to hospitals and quarters for malaria was 26.03 for blacks and 55.23 for whites, as compared with a rate of 36.14 for blacks and 84.93 for whites for last month and 55.81 for blacks and 183.86 for whites for the corresponding month of last year.

There was one death from injury among American employees during the month, giving a death rate of 2.63, as compared with 2.83 for last month and 5.78 for the month of August last year. The admission rate to hospitals from disease was 177.16 for Americans, as compared with 202.63 for last month and 291.91 for the corresponding month of last year.

DEPORTATIONS.

There were 11 deportations accomplished during the month, 2 employees (for disease 1, for injury 1), and 9 nonemployees (for disease 7, not sick 2).

CANAL ZONE.

EMPLOYEES AND NONEMPLOYEES.

The population of the Canal Zone is 31,048, according to the last police census, taken in June, 1916. This includes employees, nonemployees, and military garrisons, residing or stationed within the Canal Zone limits. Among this population there were 25 deaths during the month of August, 21 of which were from disease, giving a death rate of 8.12, as compared with 12.37 for the preceding month and 18.26 for the corresponding month of last year.

Of the total deaths from disease the percentage under 5 years of age was 48, as compared with 53 for last month.

There were 60 births reported, giving a rate of 23.19; of these 15 were white and 45 colored.

There were four deaths of children under 1 year of age, all colored, giving an infant mortality rate, based upon the number of births reported during the month, of 0.00 for white and 91 for colored children, with a general average of 67.

The percentage of stillbirths to total births was 8.

PANAMA CITY.

EMPLOYEES AND NONEMPLOYEES.

The population of the city is 60,778, among whom there were 148 deaths during the month of August; of these 144 deaths were from disease, giving a rate of 28.43, as compared with 29.62 for the preceding month and 29.02 for the corresponding month of last year.

Of the total deaths from disease the percentage under 5 years of age was 61 as against 54 for last month.

The principal causes of deaths, as compared with last month, were as follows:

	August.	July.
Diarrhea and enteritis (under 2 years).....	35	44
Tuberculosis of the lungs.....	19	18
Broncho-pneumonia.....	9	6

There were 225 births reported, giving a rate of 44.42. There were 63 deaths under 1 year of age, giving an infant mortality rate, based upon the number of births reported for the month, of 280.

The percentage of stillbirths to total births was 11.

COLON.

EMPLOYEES AND NONEMPLOYEES.

The population of the city is 24,693, among whom there were 56 deaths during the month of August. Of these 55 were from disease, giving a rate of 26.73, as compared with 20.41 for the preceding month, and 20.86 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 49 for the preceding month.

The principal causes of death, as compared with last month, were as follows:

	August.	July.
Tuberculosis of the lungs.....	6	6
Organic disease of the heart.....	4	2
Broncho-pneumonia.....	4	3

There were 64 births reported, giving a rate of 31.10. There were 14 deaths under 1 year of age, giving an infant mortality rate, based on the number of births reported for the month, of 219.

The percentage of stillbirths to total births was 9.

DIVISION OF HOSPITALS.

ANCON HOSPITAL.

The average number of patients constantly in the hospital proper during the month was 453, as compared with 436 for last month and 470 for the corresponding month of last year. The average number of days' treatment for each employee was 23.82. The daily per capita cost per patient in the hospital proper was \$1.51 gross for July.

Complete removal of the board of health laboratory to building No. 222 (formerly ward 16) was effected and laboratory operations resumed with practically no interruption. Building No. 287, the former laboratory, was razed by the building division, the site to be used for the new concrete dispensary building, work on which was started.

To relieve the present congestion in the colored women's wards a section of ward 17 was partitioned off and the tubercular patients (colored women) transferred thereto.

Two additional mahogany handrails were installed on the stairways of section A, the new concrete section.

A telephone booth was installed in the operating room.

One hundred and twenty-four malaria cases were admitted, as against 143 for July. Influenza increased from 6 cases in July to 23 admissions in August, and acute bronchitis from 7 cases to 20.

Twenty cases of follicular tonsillitis were admitted in August, against 11 in July.

The number of cases treated in isolation increased considerably, diphtheria and diphtheria suspects accounting for the increase.

COROZAL HOSPITAL (INSANE).

The average number of patients constantly cared for during August was 290, as compared with 289 for last month and 251 for the corresponding month of last year. During the month there were 20 admissions, 13 discharges, and 3 deaths. Of the admissions, three were cases that had been sent to Ancon Hospital for surgical treatment. The discharges included one case sent to Ancon Hospital for surgical treatment.

Two soldiers were deported to the United States, one of whom had only been in the hospital a few days in transit from the Marine detachment, American legation, Nicaragua. Six cases were deported to Barbados and one case to Italy.

The nurses' quarters were completed during the month.

Work on the addition to the piggery has not yet commenced.

The general health of the patients and cripples remains good. The daily per capita cost per patient was \$0.42 in July.

Detailed statistics of Ancon and Corozal Hospitals are shown in Table XIV.

CHRONIC WARD.

There were no admissions, discharges, deaths, or transfers during the month. The average number of chronic and incurable patients constantly cared for was 20. The per capita cost per patient per day for July was \$0.29.

Detailed statistics are shown in Table XIV.

BOARD OF HEALTH LABORATORY.

During the month of August work outside of routine as follows was performed at the board of health laboratory:

Five gallons of a disinfectant was prepared for use in the hospital, according to a formula proposed by the United States Public Health Service, in order to test the efficiency of this product as a bactericide in practice. It is prepared from pine oil and rosin, and while it is therefore noncresylic the preliminary tests have shown it to compare very favorably with other saponaceous disinfectants of a cresylic origin.

The physical properties of petroleum are being studied with the purpose of determining the possibility of improving its efficiency as a larvacide.

The rate of change of anhydrous sodium sulphite to sulphate while stored in a dry atmosphere is being studied, and in connection with this study a comparison has been made of the different accepted methods of determining the sulphite radicle.

COLON HOSPITAL.

The average number of patients constantly in hospital was 34, as compared with 41 for the preceding month and the same number for the corresponding period of last year. The average number of days' treatment per employee was 6.89.

The daily per capita cost per patient was \$2.14 for July.

Detailed statistics are shown in Table XV.

PALO SECO LEPER ASYLUM.

The average number of patients constantly cared for during August was 67.58, as compared with 66 for the preceding month and 57 for the corresponding month of last year. During the month there was one admission, no deaths, no discharges.

Work has been carried on continuously during the month on the new well for the water supply of the asylum. A good and ample supply has been obtained at a depth of 147 feet, and with the completion of the installation of a pump and connections will, it is hoped, solve the problem of water supply satisfactorily and permanently.

The daily per capita cost per patient for July was \$0.87.

SANTO TOMAS HOSPITAL.

During the month 1,439 patients were treated in the hospital, as compared with 1,339 for the preceding month and 1,334 for August of last year. The daily average number of patients was

440, as compared with 456 for the preceding month and 448 for the corresponding period of last year; the total number of days' treatment was 13,717, as compared with 14,134 for the month of July.

The number of deaths was 93, with tuberculosis of the lungs, diarrhea, and enteritis (under 2 years), and congenital debility the chief causes in the order named.

There were 13 cases of dysentery treated, with 1 death, and 9 cases of pneumonia treated, with 6 deaths.

Detailed statistics are shown in Table XVII.

DISTRICT DISPENSARIES.

The dispensary having the highest admission rate for malaria was Gatun, with an average weekly percentage of 0.504; that having the lowest was Paraiso, with a percentage of 0.12.

Detailed statistics are shown in Table X.

SANITATION—CANAL ZONE.

While the month has been one of heavy rainfall, antimosquito work has been carried on in the several districts with vigor and success. The mosquito catch and malaria rates in most of the districts are the lowest on record for August. A noticeable reduction in the malaria rate has been effected at Gatun, where an average weekly percentage of employees excused for malaria has been reduced from 1.06 in August, 1915, to 0.504 in August, 1916.

The destruction and removal of quarters at New Gatun is in progress, and it is believed that with the elimination of these 1,000 or 2,000 nonemployees—a great many of whom are malaria carriers and all of whom have been residing in unscreened quarters—the health conditions of this community will be permanently improved. In addition to the routine antimalaria measures of ditch cleaning, oiling, grass cutting, and adult mosquito catching, a large amount of permanent work has been accomplished at Gatun, Corozal, Paraiso, and La Boca, including filling and grading of marshy lands and laying of subsoil drains.

The construction of new quarters is in progress, and already better housing facilities have been afforded employees residing at Frijoles and Monte Lirio. The box cars at these places formerly occupied as quarters have been vacated and are now being demolished.

Inspection of hotels and restaurants and the physical examination of their employees was made during the month. Two cases of contagious disease were discovered at these examinations, and the employees suspended from their employment until such time as they presented a medical certificate of recovery.

Complete surveys have been made in each district of the permanent work required to reduce maintenance cost to a minimum. This work, as outlined, will not be undertaken comprehensively until the beginning of the dry season.

The following communicable diseases were reported during the month:

Chicken pox.....	3	Measles.....	5
Diphtheria.....	10	Puerperal septicemia.....	1
Malarial fever.....	94	Tuberculosis.....	13

SANITATION—PANAMA.

During the month there were reported 7 admissions to Ancon Hospital and 15 to Santo Tomas Hospital for malaria from the city of Panama, making a total of 22 cases. During the same month of 1915 there were 36 admissions, and during August, 1914, 274 admissions to both hospitals for this disease. There were no deaths reported due to malaria.

A survey was made of the outlying districts in which we carry on antimosquito work for the purpose of locating houses in which there were to be found cases of chronic malarial infection. Ten such houses were located and quinine, both in capsule and liquid form, was left with careful instructions to the occupants as to its use. These people are of the poorer class of Panamans and present marked anemia due to hookworm infection and chronic malaria.

It is thought that this distribution of quinine will be of considerable aid in lessening the prevalence of malaria near the outer limits of the city.

With the aid of the Panaman police an effort has been made to enforce stricter compliance with the sanitary regulation requiring that all chickens and other fowls or small animals be kept in sanitary rat-proof coops or cages.

It was found necessary to raid a number of places in which birds and animals were being kept more or less secretly, with the result that a large number of such birds and animals were taken up and sent to the city pound.

Considerable difficulty has been experienced in the past in this respect through the habit of some of the people of attempting to conduct a small poultry business in private houses and other thoroughly unsuitable places.

Vaccination.—The vaccination of the school children of the city was practically completed during the month, a total of 1,324 vaccinations being performed. Total number of vaccinations since this work was instituted in April, 1914, is 24,863.

During the month of August there were eight cases of diphtheria occurring in Panama city. Of this number there were two deaths. As a result of careful search for carriers in houses from which active cases had been removed six such bacillus carriers were detected and held in isolation until negative throat cultures were obtained. A total of 40 contacts were examined in this way by Santo Tomas Hospital Laboratory and the Board of Health Laboratory at Ancon, and the early detection of these cases made possible the control of the spread of the disease.

Request was made on all physicians practicing in Panama city for the prompt reporting of all suspicious cases, similar instruction being sent to the heads of all schools. Very willing and prompt cooperation was received.

It was necessary to impose a fine in one case where a house quarantine was violated.

During August the following infectious diseases have been reported from all sources:

Chicken pox.....	13	Mumps.....	1
Diphtheria.....	8	Pellagra.....	5
Diphtheria carriers.....	6	Tetanus.....	1
Dysentery, amebic.....	2	Tuberculosis, pulmonary.....	28
Leprosy.....	2	Typhoid fever.....	3
Malaria.....	22	Whooping cough.....	2
Measles.....	12		

SANITATION—COLON.

The general health conditions of the city continue excellent. There has been a marked reduction in the number of malaria cases in Cristobal-Colon as compared with previous years.

Building operations in the burned district of the city have commenced on certain of the lots. Preparations have been made for the installation of dry fills in the Mount Hope section, and the work will be begun within a few days.

One case of diphtheria in a Panaman was reported during the early part of the month; while there were 24 close contacts no secondary cases developed. Prophylactic immunization was employed on these contacts. One case of typhoid fever in a cook at the Cristobal Hotel appeared during the month. The last preceding case from this district occurred on February 5 last. The source of infection in this case could not be determined, but it is presumed that it was of carrier transmission. On this assumption a routine stool examination is being made of all the employees of the hotel handling food, not only in the effort to locate a particular carrier, but also as a measure of protection to the public.

The following communicable diseases were reported during the month:

Diphtheria.....	1	Measles.....	1
Malaria.....	35	Tuberculosis.....	3
Pneumonia.....	1	Whooping cough.....	2
Typhoid fever.....	1		

QUARANTINE SERVICE.

The work of the quarantine division was conducted during the month without special incident. No mosquito breeding was found in small sailing or other coastwise vessels at Cristobal-Colon.

The yellow fever and plague situation on the west coast remains practically unchanged. No new cases are reported from Buenaventura, Colombia, though there is no good reason to believe that the disease has been eradicated at this port. The plague situation in Peru and northern Chile remains practically unchanged.

The anthrax situation in the supply department pastures, commented upon in last month's report, is improving, no deaths having occurred during the last week of August. New and stringent regulations have been put in force, and it is believed that the present epidemic is well under control. Infected pasture areas will probably remain for some years to come unless drainage is perfected. The disease may be expected to recur each year if animals are pastured in such a

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

ABSOLUTE NUMBERS.

	Number of employees.	Admissions to hospitals.			Deaths.			Noneffective from sickness.	
		Total.	Disease.	External causes.	Total.	Disease.	External causes.	Days treated.	Constantly noneffective.
<i>August, 1916.</i>									
White.....	4,563	109	87	22	1	.....	1	2,135	68.88
Colored.....	29,046	317	242	75	9	8	1	6,266	202.13
Total..	33,609	426	329	97	10	8	2	8,401	271.01
<i>July, 1916.</i>									
White.....	4,239	126	100	26	1	1	.....	2,409	77.72
Colored.....	29,548	293	226	67	11	6	5	6,337	204.40
Total..	33,787	419	326	93	12	7	5	8,746	282.12
<i>August, 1915.</i>									
White.....	4,634	167	142	25	3	3	.....	3,141	101.32
Colored.....	31,390	443	333	110	14	9	5	8,276	266.96
Total..	36,024	610	475	135	17	12	5	11,417	368.28

PROPORTIONATE NUMBERS.¹

<i>August, 1916.</i>									
White.....	4,563	286.65	228.79	57.86	2.63	.....	2.63	.....	15.10
Colored.....	29,046	130.96	99.98	30.98	3.72	3.31	.41	.....	6.96
Total..	33,609	152.10	117.47	34.63	3.57	2.86	.71	.....	8.06
<i>July, 1916.</i>									
White.....	4,239	356.69	283.09	73.60	2.83	2.83	.....	.....	18.34
Colored.....	29,548	118.99	91.78	27.21	4.47	2.44	2.03	.....	6.92
Total..	33,787	148.81	115.78	33.03	4.26	2.49	1.78	.....	8.35
<i>August, 1915.</i>									
White.....	4,634	432.45	367.71	67.74	7.77	7.77	.....	.....	21.87
Colored.....	31,390	169.35	127.30	42.05	5.35	3.44	1.91	.....	8.50
Total..	36,024	203.19	158.22	44.97	5.66	3.99	1.67	.....	10.22

¹ Annual average per 1,000.

DEATHS OF RESIDENTS OF THE CITIES OF PANAMA, COLON, AND
THE CANAL ZONE.

Place.	Popula- tion.	Number.			Per cent.		
		Total.	Dis- ease.	Exter- nal causes.	Total.	Dis- ease.	Exter- nal causes.
<i>August, 1916.</i>							
Panama.....	60,778	148	144	4	29.22	28.43	0.79
Colon.....	24,693	56	55	1	27.21	26.73	.48
Canal Zone.....	31,048	25	21	4	9.66	8.12	1.54
Total.....	116,519	229	220	9	23.59	22.66	.93
<i>July, 1916.</i>							
Panama.....	60,778	157	150	7	31.00	29.62	1.38
Colon.....	24,693	47	42	5	22.84	20.41	2.43
Zone.....	31,048	39	32	7	15.07	12.37	2.71
Total.....	116,519	243	224	19	25.03	23.07	1.95
<i>August, 1915.</i>							
Panama.....	60,373	149	146	3	29.61	29.02	.59
Colon.....	29,331	54	51	3	22.08	20.86	1.22
Zone.....	30,219	50	46	4	19.85	18.26	1.59
Total.....	119,923	253	243	10	25.31	24.31	1.00

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

	White.			Colored.			Yellow.			Total.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Under 1 year....	2	1	3	42	35	77	....	1	1	44	37	81
1 to 4 years....	1	2	3	20	15	35	....	....	....	21	17	38
5 to 10 years....	....	1	1	1	1	2	1	1	2	2	3	5
11 to 20 years....	....	....	....	2	2	4	....	....	....	2	2	4
21 to 30 years....	....	1	1	20	12	32	....	....	....	20	13	33
31 to 40 years....	....	....	....	13	11	24	1	....	1	14	11	25
41 to 50 years....	4	1	5	12	2	14	....	....	....	16	3	19
51 to 60 years....	....	2	2	5	2	7	2	....	2	7	4	11
61 to 70 years....	2	1	3	3	2	5	1	....	1	6	3	9
71 to 80 years....	....	....	....	2	2	4	....	....	....	2	2	4
Total.....	9	9	18	120	84	204	5	2	7	134	95	229

TABLE III.—DEATHS BY NATIONALITY.

	Employees.		Nonemployees.		Total.		Grand total.
	Male.	Female.	Male.	Female.	Male.	Female.	
Antilles.....			1		1		1
Barbados.....	1		18	18	19	18	37
Colombia.....			8	8	8	8	16
China.....			4	2	4	2	6
Cuba.....			2		2		2
Ecuador.....				2		2	2
Fortune Island.....	1			1	1	1	2
France.....				1		1	1
Germany.....			1		1		1
Grenada.....			3	2	3	2	5
Guadeloupe.....				1		1	1
Guatemala.....			1		1		1
Italy.....			4		4		4
Jamaica.....	4		36	31	40	31	71
Japan.....			1		1		1
Martinique.....			5	1	5	1	6
Mexico.....				1		1	1
Montserrat.....	1				1		1
Nevis.....				1		1	1
Panama.....			30	18	30	18	48
Nicaragua.....			1		1		1
St. Thomas.....				1		1	1
St. Lucia.....	1		2	5	3	5	8
Spain.....			2		2		2
St. Vincent.....			1		1		1
St. Kitts.....	1				1		1
Trinidad.....			2	2	2	2	4
Turkey.....			1		1		1
United States.....	1		1		2		2
Total.....	10		124	95	134	95	229

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 (4,335):		
Disease.....		0.00
External causes.....	1	2.77
Total.....	1	2.77
White women and children from the United States (3,500):		
Disease.....		0.00
External causes.....		0.00
Total.....		0.00
White employees and their families from the United States (7,835):		
Disease.....		0.00
External causes.....	1	1.53
Total.....	1	1.53
Total number of Americans on the Canal Zone, including soldiers and their families (16,022):		
Disease.....		0.00
External causes.....	1	.75
Total.....	1	.75

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

	White.	Colored.	Total.
Disease:			
Chronic nephritis.....		2	2
Disseminated tuberculosis.....		4	4
Tuberculosis of the lungs.....		1	1
Organic heart disease.....		1	1
External causes:			
Compound fracture, base of skull.....	1		1
Fracture, simple, linear, concussion of brain.....		1	1
Total.....	1	9	10

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

Disease.	Pan-ama.		Colon.		Canal Zone.		Total.		Grand total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
<i>General diseases.</i>									
Malarial fever, estivo-autumnal.....					1		1		1
Whooping cough.....		1						1	1
Diphtheria and croup.....	2		1			1	3	1	4
Dysentery.....		1						1	1
Dysentery, unclassified.....	1						1		1
Septicemia.....		1						1	1
Tetanus.....	1						1		1
Pellagra.....	2	1	1	1		1	3	3	6
Tuberculosis of the lungs.....	12	7	4	2	2		18	9	27
Acute miliary tuberculosis.....		1						1	1
Tuberculosis meningitis.....				1				1	1
Disseminated tuberculosis.....	4		2		1		7		7
Syphilis, tertiary.....			1				1		1
Cancer and other malignant tumors of the stomach and liver.....	1	1					1	1	2
Cancer and other malignant tumors of the female genital organs.....		1						1	1
Cancer and other malignant tumors of other organs and of organs not specified.....		1						1	1
Alcoholism (acute or chronic).....		1						1	1
Alcoholism, acute.....	1		1				2		2
<i>Diseases of the nervous system and of the organs of special sense.</i>									
Simple meningitis.....						1		1	1
Pneumococcus meningitis.....		1						1	1
Cerebral hemorrhage, apoplexy.....		1		2				3	3
Epilepsy.....			1	1			1	1	2
Convulsions of infants (under 5 years of age).....	1			1			1	1	2
Neuritis.....						1		1	1
Other diseases of the nervous system.....		1						1	1

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

Disease.	Pan-ama.		Colon.		Canal Zone.		Total.		Grand total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
<i>Diseases of the circulatory system.</i>									
Acute endocarditis.....		1						1	1
Organic diseases of the heart.....	6	1	3	1	2		11	2	13
Aneurysm.....		1						1	1
Arterio-sclerosis.....					1		1		1
Embolism and thrombosis.....			1				1		1
Diseases of the lymphatic system (lymphangitis, etc.).....	1						1		1
<i>Diseases of the respiratory system.</i>									
Acute bronchitis.....	2	2		2			2	4	6
Chronic bronchitis.....	1		1	1			2	1	3
Broncho-pneumonia.....	5	4	1	3		1	6	8	14
Pneumonia (unqualified).....		2		1	1		1	3	4
Lobar pneumonia.....	1	1	2	1			3	2	5
Pulmonary congestion, pulmonary apoplexy.....	2		1				3		3
Asthma.....						1		1	1
<i>Diseases of the digestive system.</i>									
Chronic gastritis.....			1	1			1	1	2
Diarrhea and enteritis (under 2 years).....	23	12	2	2	1	1	26	15	41
Colitis.....	5	2					5	2	7
Diarrhea and enteritis (2 years and over).....			1				1		1
Intestinal parasites.....			1				1		1
Acute appendicitis.....	1						1		1
Other diseases of the liver.....	1						1		1
Simple peritonitis (nonpuerperal).....		1	1				1	1	2
Other diseases of the digestive system (cancer and tuberculosis excepted).....	1						1		1
<i>Nonvenereal diseases of the genito- urinary system and annexa.</i>									
Acute nephritis.....	3	1					3	1	4
Bright's disease (chronic nephritis)...	3		3		1		7		7
Pyelo-nephrosis.....	1						1		1
Salpingitis and other diseases of the female genital organs.....				1				1	1
<i>The puerperal state.</i>									
Abortion.....		1						1	1
Eclampsia.....				2				2	2
<i>Malformations.</i>									
Congenital malformations (stillbirth not included).....	1	1					1	1	2

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

Disease.	Pan-ama.		Colon.		Canal Zone.		Total.		Grand total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
<i>Diseases of early infancy.</i>									
Congenital debility, icterus, and sclerema.....	1	.....	.....	.....	1	.....	2	.....	2
Premature birth.....	.....	3	1	.....	.....	.....	1	3	4
Congenital debility.....	.....	2	.....	.....	.....	.....	.....	2	2
Atrophy of infants.....	1	.....	.....	.....	.....	.....	1	.....	1
Malnutrition.....	.....	2	.....	1	1	1	1	1	5
Other causes peculiar to early infancy (including various consequences of labor).....	.....	.....	.....	1	.....	.....	.....	1	1
<i>Old age.</i>									
Senility.....	.....	1	.....	.....	.....	.....	.....	1	1
<i>Affections produced by external causes.</i>									
Suicide by drowning.....	.....	.....	.....	.....	.....	1	.....	1	1
Suicide by firearms.....	1	.....	1	.....	.....	.....	2	.....	2
Accidental drowning.....	.....	.....	.....	.....	.....	1	.....	1	1
Traumatism by other crushings (vehicles, railroads, landslides, etc.).....	.....	.....	.....	.....	2	.....	2	.....	2
Homicide by firearms.....	.....	2	.....	.....	.....	.....	.....	2	2
Other external violence.....	1	.....	.....	.....	.....	.....	1	.....	1
<i>Ill-defined diseases.</i>									
Cause of death not specified or ill defined.....	2	1	.....	.....	1	.....	3	1	4
Total.....	88	60	31	25	15	10	134	95	229
Stillbirths.....	16	8	5	1	3	2	24	11	35
Total deaths, including stillbirths.....	104	68	36	26	18	12	158	106	264

TABLE VII.—DEATHS OF NONRESIDENTS.

Residence.	Nationality.	Color.	Sex.	Age.	Diagnosis.
Steamship Ancon	Sweden.....	White...	Male....	47	Drowning, acci- dental.
Steamship Pas- tores.	United States. ....do.....	do.....	do.....	29	Suicide by fire - arms.
Interior of Pan- ama.	Panama.....	do.....	do.....	26	Chronic nephritis.
Do.....	do.....	Black...	do.....	30	Septicemia.
Do.....	do.....	do.....	Female .	16	Amebic dysen- tery.
Do.....	do.....	do.....	Male....	25	Lobar pneumonia.
Do.....	do.....	do.....	do.....	70	Arteriosclerosis.
Do.....	Chinese.....	Yellow...	do.....	30	Fever, undeter- mined.
Do.....	do.....	do.....	do.....	51	Tuberculosis of the lungs.
Do.....	Panama.....	Black...	Female .	68	Acidosis.
Do.....	do.....	do.....	Male....	20	Tuberculosis of the lungs.
Do.....	Colombia.....	do.....	do.....	40	Septicemia follow- ing liver abscess.
Do.....	Panama.....	do.....	do.....	60	Organic heart dis- ease.
Do.....	Jamaica.....	do.....	do.....	21	Tuberculosis of the lungs.
Do.....	Panama.....	do.....	do.....	40	Do.

IN THE HOSPITALS OF THE PANAMA CANAL—Continued.

Nonemployees.										Nonresidents.								Total admissions.	Total deaths.
Admissions.					Deaths.					Admissions.				Deaths.					
White.			Black.		White.			Black.		White.		Black.		White.		Black.			
Soldiers.	Others.				Soldiers.	Others.				M.	F.			M.	F.				
	M.	F.	M.	F.		M.	F.	M.	F.			M.	F.			M.	F.		
	2			1														4	
4																		12	
																		1	
9		1																14	
																		3	
4	4	2	5	2						1								2	
1	1																	24	
																		1	
			3	1				2				1						3	
			1	2														8	2
																		5	
																		3	
2										1								4	
1			1															1	
7	2	4		7														11	
		1		4														29	
		1		1														2	
	1			1														3	
	2		1															7	
																		5	
	1	1	1	1					1									4	1
																		1	
			2															3	
1																		2	
6	1	1																1	
4	1	1								1								9	
1	1	1	1															8	
			1															13	
			1															1	

TABLE VIII.—SHOWING ADMISSIONS AND DEATHS

Diseases.	Employees.											
	Admissions.						Deaths.					
	White.				Black.		White.				Black.	
	Ameri- cans.		Euro- peans.				Ameri- cans.		Euro- peans.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>The puerperal state.</i>												
Normal labor.....												
Accidents of pregnancy.....												
Extra-uterine pregnancy.....												
Hyperemesis gravidarum.....												
Abortion.....												
Other accidents of labor.....												
Puerperal septicemia.....												
Puerperal albuminuria and convulsions.....												
Eclampsia.....												
Puerperal diseases of the breast.....												
<i>Diseases of the skin and of the cellular tissue.</i>												
Gangrene.....												
Furuncle.....	1											
Acute abscess.....			1		4							
Phlegmon and cellulitis.....					1							
Elephantiasis.....					1							
Myiasis of skin.....												
Dhobie itch.....		1										
Ulcer of the skin.....					2							
Urticaria.....												
Ingrowing nail.....	1		1									
Other diseases of the skin and annexa.....	1				2							
<i>Diseases of the bones and of the organs of locomotion.</i>												
Diseases of the bones (tu- berculosis excepted).....	1				2							
Caries (nontuberculous).....												
Diseases of the joints (tu- berculosis and rheuma- tism excepted).....					1							
Arthritis.....	1				1							
Synovitis.....												
Other diseases of the organs of locomotion.....					1							
<i>Malformations.</i>												
Congenital malformations (stillbirth not included).....					1							

TABLE VIII.—SHOWING ADMISSIONS AND DEATHS

Diseases.	Employees.											
	Admissions.						Deaths.					
	White.				Black.	White.				Black.		
	Ameri- cans.		Euro- peans.			Ameri- cans.		Euro- peans.				
	M.	F.	M.	F.		M.	F.	M.	F.			
<i>Diseases of early infancy.</i>												
Newborn child.....												
Premature birth.....												
<i>Affections produced by exter- nal causes.</i>												
Poisoning by food.....	1				3							
Burns (conflagration ex- cepted).....	1		1									
Traumatism by firearms.....												
Traumatism by cutting or piercing instruments.....					12							
Traumatism by fall.....	4											
Traumatism in mines and quarries.....					1							
Traumatism by machines.....					2							
Traumatism by other crush- ings (vehicles, railroads, landslides, etc.).....					22		1				1	
Railroad traumatism.....					1							
Traumatism by landslides.....					1							
Heat exhaustion.....			1									
Fractures (cause not speci- fied).....	1		3		11							
Sprains.....					4							
Other external violence.....	4	1	5		18							
<i>Ill-defined diseases.</i>												
Ill-defined organic disease.....												
Cause of death not specified or ill defined.....												
Infections of undetermined origin.....					16							
No disease.....					1							
Total.....	73	3	33		314	3	1				8	

IN THE HOSPITALS OF THE PANAMA CANAL—Continued.

Nonemployees.										Nonresidents.								Total admissions.	Total deaths.
Admissions.					Deaths.					Admissions.				Deaths.					
White.			Black.		White.			Black.		White.		Black.		White.		Black.			
Soldiers.	Others.				Soldiers.	Others.				M.	F.	M.	F.	M.	F.	M.	F.		
	M.	F.	M.	F.		M.	F.	M.	F.										
.....	8	8	4	4					1									24	
.....				1														1	1
.....		1																5	
.....	1																	3	
.....	1																	2	
.....	4		2															15	
.....			1															11	
.....			1															1	
.....																		4	
.....			1															23	
.....																		1	
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TABLE IX.—CONSOLIDATED

	Remaining Aug. 1.			Admitted.			Died.		
	A.	F.	B.	A.	F.	B.	A.	F.	B.
ANCON HOSPITAL.									
Panama Canal employees.....	17	16	114	51	23	193	1	....	2
Panama Railroad employees.....	5	8	53	6	2	55	....	....	3
Panama pay cases.....	....	....	3	....	....	....	....	....	....
Other pay cases.....	90	16	71	288	58	168	....	....	12
Charity cases.....	7	1	22	17	2	30	....	....	3
Total.....	119	41	263	362	85	446	1	....	20
<i>Insane department.</i>									
Panama Canal employees.....	....	5	10	....	....	1	....	....	....
Panama Railroad employees ¹.....	....	....	7	....	....	1	....	....	....
Panama pay cases ¹	2	29	173	....	....	11	....	....	2
Other pay cases.....	1	3	3	3	1	2	....	....	....
Charity cases.....	3	5	48	....	4	15	....	....	1
Total.....	6	42	241	3	5	30	....	....	3
Grand total.....	125	83	504	365	90	476	1	....	23
<i>Corozal farm.</i>									
Panama Canal employees.....	....	12	53	....	2	3	....	....	....
<i>Chronic ward.</i>									
Charity cases.....	....	....	20	....	....	....	....	....	....
COLON HOSPITAL.									
Panama Canal employees.....	3	1	11	14	7	27	....	....	1
Panama Railroad employees.....	1	2	5	5	1	40	....	....	2
Panama pay cases.....	....	....	1	....	1	9	....	1	2
Other pay cases.....	5	6	2	19	15	8	....	....	....
Charity cases.....	2	1	....	5	1	3	....	....	....
Total.....	11	10	19	43	25	87	....	1	5
PALO SECO LEPER ASYLUM.									
Panama Canal employees ¹.....	....	....	4	....	....	....	....	....	....
Panama pay cases.....	....	2	38	....	....	....	....	....	....
Charity cases.....	....	2	21	....	....	5	....	....	....
Total.....	....	4	63	....	....	5	....	....	....
GRAND TOTALS.									
Panama Canal employees.....	20	34	192	65	32	224	1	....	3
Panama Railroad employees.....	6	10	65	11	3	96	....	....	5
Panama pay cases.....	2	31	215	....	1	20	....	1	4
Other pay cases.....	96	25	76	310	74	178	....	....	12
Charity cases.....	12	9	111	22	7	53	....	....	4
Total.....	136	109	659	408	117	571	1	1	28

¹ 16 incurable insane and 5 lepers were dropped as Panama Canal and Panama Railroad employees and taken up as charity patients.

HOSPITAL REPORT.

Discharged.			Transferred.			Remaining Aug. 31.			Average number constantly sick,			
A.	F.	B.	A.	F.	B.	A.	F.	B.	Amer- ican.	Foreign.	Black.	Total.
46	27	154	1	1	1	20	11	150	18.97	13.84	117.42	150.23
6	8	41	.....	.....	3	5	2	64	4.01	5.26	52.74	62.01
256	38	157	1	1	2	121	35	68	103.26	25.87	71.84	200.97
15	2	14	.....	.....	1	9	1	34	7.39	1.03	28.77	37.19
323	75	366	2	2	7	155	49	316	133.63	46.00	273.00	452.63
.....	.....	.....	.....	4	9	.....	1	2	.....	1.32	2.17	3.49
.....	.....	.....	.....	.....	6	.....	2	2	.....	.....	1.83	1.83
.....	3	.....	.....	.....	.....	2	26	182	2.00	27.81	176.10	205.91
1	.....	1	1	.....	1	2	4	3	1.19	3.55	2.13	6.87
.....	.....	.....	.....	1	3	3	8	59	3.00	9.23	59.83	72.06
1	3	1	1	5	19	7	39	248	6.19	41.91	242.06	290.16
324	78	367	3	7	26	162	88	564	139.82	87.91	515.06	742.79
.....	3	5	.....	1	.....	.....	10	51	.....	11.06	50.68	61.74
.....	.....	.....	.....	.....	.....	.....	.....	20	.....	.....	20.00	20.00
13	6	27	1	1	3	3	1	7	2.26	.77	7.42	10.45
6	3	27	.....	.....	7	.....	.....	9	1.03	.29	7.74	9.06
.....	.....	2	.....	.....	6	.....	.....	.....	.....	.03	.38	.41
19	17	6	1	2	2	4	2	2	4.78	4.77	1.74	11.29
5	2	2	.....	.....	1	2	.....	.....	1.48	1.00	.13	2.61
43	28	64	2	3	19	9	3	18	9.55	6.86	17.41	33.82
.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	2	38	.....	2.00	38.00	40.00
.....	.....	.....	.....	.....	.....	.....	2	26	.....	2.00	25.58	27.58
.....	.....	.....	.....	.....	4	.....	4	64	.....	4.00	63.58	67.58
59	36	186	2	7	17	23	23	210	21.23	26.99	177.69	225.91
12	11	68	.....	.....	13	5	2	75	5.04	5.55	62.31	72.90
.....	3	2	.....	.....	9	2	28	220	2.00	29.84	216.71	248.55
276	55	164	3	3	5	127	41	73	109.23	34.19	75.71	219.13
20	4	16	.....	1	5	14	11	139	11.87	13.26	134.31	159.44
367	109	436	5	11	49	171	105	717	149.37	109.83	666.73	925.93

Number of employees remaining in hospitals: White, 53; black, 285; total, 338.
A.—White Americans; F.—White foreign; B.—Black.

TABLE X.—CONSOLIDATED DISPENSARY REPORT.

EMPLOYEES TREATED IN QUARTERS.

Station.	Re-main-ing Aug. 1.		Admit-ted.		Died.		Dis-charged.		Trans-ferred.		Re-main-ing Aug. 31.		Days lost.		
	W.	B.	W.	B.	W.	B.	W.	B.	W.	B.	W.	B.	W.	B.	Total.
Ancon.....	1	....	96	13	....	....	95	11	2	2	....	....	170	30	200
Balboa.....	4	....	93	3	....	....	93	2	....	1	4	....	204	4	208
Pedro Miguel	1	....	9	2	....	....	7	1	1	1	2	....	25	4	29
Paraiso.....	....	....	12	4	....	....	11	4	....	....	1	....	21	17	38
Gamboa.....	....	....	1	....	....	....	1	....	....	....	....	....	3	....	3
Gatun.....	1	....	14	6	....	....	14	4	1	....	....	2	38	23	61
Colon.....	5	11	89	47	....	....	87	45	....	....	7	13	197	319	516
■ Total..	12	11	314	75	....	....	308	67	4	4	14	15	658	397	1,055

ALL CASES TREATED BUT NOT EXCUSED.

Station.	Employees.			Nonemployees.			Total.		
	W.	B.	Total.	W.	B.	Total.	W.	B.	Total.
Ancon.....	2,613	3,980	6,593	1,882	2,709	4,591	4,495	6,689	11,184
Balboa.....	3,436	3,899	7,335	1,006	940	1,946	4,442	4,839	9,281
Pedro Miguel	406	608	1,014	508	596	1,104	914	1,204	2,118
Paraiso.....	869	2,883	3,752	556	869	1,425	1,425	3,752	5,177
Gamboa.....	53	156	209	43	444	487	96	600	696
Gatun.....	290	1,656	1,946	742	1,679	2,421	1,032	3,335	4,367
Colon.....	727	3,109	3,836	723	798	1,521	1,450	3,907	5,357
Total..	8,394	16,291	24,685	5,460	8,035	13,495	13,854	24,326	38,180

CONSOLIDATED ADMISSIONS REPORT.

	White.	Black.	Total.
Total admissions to hospitals, excluding Corozal Farm and Chronic Ward.....	523	568	1,091
Total admissions of employees to quarters.....	314	75	389
Total.....	837	643	1,480
Less number of patients transferred between hospitals and from quarters to hospitals, whose admissions are duplicated in above figures.....	19	53	72
Net admissions to hospitals and quarters....	818	590	1,408
Employees admitted to hospitals.....	109	317	426
Employees admitted to quarters.....	314	75	389
Total.....	423	392	815

TABLE X.—CONSOLIDATED DISPENSARY REPORT—Continued.

CONSOLIDATED ADMISSIONS REPORT—Continued.

	White.	Black.	Total.
Less number of patients transferred between hospitals and from quarters to hospitals, whose admissions are duplicated in above figures.....	8	17	25
Net admissions of employees to hospitals and quarters.....	415	375	790
Annual average per thousand of admissions of employees to hospitals and quarters.....	1,091.38	154.92	282.06

CONTAGIOUS AND INFECTIOUS DISEASES REPORTED DURING THE MONTH.

Diseases.	Pana-ma.	Colon.	Canal Zone.	Total.
Chicken pox.....	12		3	15
Diphtheria.....	8	1	10	19
Dysentery.....	1			1
Leprosy.....	2			2
Malarial fever.....	22	35	94	151
Measles.....	12	1	5	18
Mumps.....	1			1
Puerperal septicemia.....				1
Pneumonia.....		1		1
Tetanus.....	1			1
Tuberculosis (any organ).....	21	3	13	37
Typhoid fever.....	3	1		4
Whooping cough.....	2	2		4

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

	White.	Colored.	Total.
Hospitals.			
Ancon Hospital.....	43.40	174.16	217.56
Colon Hospital.....	4.35	15.16	19.51
Total.....	47.75	189.32	237.07
Quarters:			
Ancon.....	5.48	.97	6.45
Balboa.....	6.58	.13	6.71
Pedro Miguel.....	.81	.13	.94
Paraiso.....	.68	.55	1.23
Gamboa.....	.01		.01
Gatun.....	1.22	.74	1.96
Colon.....	6.35	10.29	16.64
Total.....	21.13	12.81	33.94

TABLE XI.—AVERAGE NUMBER OF EMPLOYEES CONSTANTLY SICK IN HOSPITALS AND QUARTERS—Continued.

	Hospitals.	Quarters.	Total.
Average number of employees constantly sick:			
White.....	47.75	21.13	68.88
Colored.....	189.32	12.81	202.13
Total.....	237.07	33.94	271.01
Average number of employees constantly sick per 1,000:			
White.....	10.47	4.63	15.10
Colored.....	6.52	.44	6.96
Total.....	7.05	1.01	8.06

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

	White.	Black.	Total.
Hospitals:			
Ancon Hospital.....	17.66	26.73	23.82
Colon Hospital.....	6.10	6.95	6.89
Quarters:			
Ancon.....	1.94	2.31	1.98
Balboa.....	2.01	1.33	2.09
Pedro Miguel.....	3.12	2.00	2.90
Paraiso.....	1.91	4.25	2.53
Gamboa.....	3.00	.....	3.00
Gatun.....	2.60	5.75	3.26
Colon.....	2.41	10.00	5.00

TABLE XIII.—FINANCIAL STATEMENT, DEPARTMENT OF HEALTH.

	July, 1916.	June, 1916.	July, 1915.
Administration, chief health office.....	\$792.97	\$566.43	\$475.12
Hospital division:			
Ancon Hospital.....	25,742.20	26,075.79	25,441.84
Board of health laboratory.....	1,440.96	2,107.05	1,551.67
Corozal farm.....	6,143.71	6,024.47	5,553.60
Chronic ward.....	202.35	229.08	254.08
Colon Hospital.....	3,803.60	4,316.32	3,042.33
Palo Seco Leper Asylum.....	1,691.10	1,508.86	2,956.20
Santo Tomas Hospital.....	866.63	805.50	1,058.18
Medical storehouse.....	930.17	1,595.41	1,031.69
Reserve for new tools (depreciation).....	835.80	834.15	.....
	41,656.52	43,496.63	40,889.59
District dentists.....	91.21	294.48	445.52

TABLE XIII.—FINANCIAL STATEMENT, DEPARTMENT OF HEALTH—
Continued.

	July, 1916.	June, 1916.	July, 1915.
Dispensaries:			
Naos Island.....			\$126.95
Balboa.....	\$1,028.61	\$1,061.40	952.29
Corozal.....			521.92
Pedro Miguel.....	500.47	448.99	416.18
Paraiso.....	595.63	600.97	441.92
Gamboa.....	151.00	260.44	124.93
Gatun.....	623.07	577.24	465.16
	2,989.99	3,198.52	3,494.87
Sanitary division:			
General inspector.....	50.00	50.00	50.00
Health office, Panama.....	3,338.25	3,630.77	3,185.35
Street cleaning.....	4,254.49	4,128.26	4,202.74
Health office, Colon-Cristobal.....	2,680.64	3,007.35	2,225.22
Street cleaning.....	2,101.29	2,327.39	2,087.92
	12,424.67	13,143.77	11,749.23
Zone sanitation—			
Ancon.....	2,196.93	2,584.37	2,519.73
Balboa.....	1,413.51	2,215.55	4,088.45
Corozal.....	2,072.61	2,772.26	2,030.75
Pedro Miguel.....	3,965.59	4,043.61	2,563.72
Culebra.....			24.58
Frijoles.....	70.01	70.22	100.06
Gatun.....	4,130.88	4,437.65	2,736.93
Cristobal-Mount Hope.....	2,393.27	2,374.31	1,619.22
	28,667.47	31,641.74	27,434.67
Quarantine division:			
Chief quarantine office.....	170.87	117.23	209.55
Balboa-Panama.....	1,912.00	2,188.81	1,925.91
Colon-Cristobal.....	3,182.57	3,172.94	3,120.54
	5,265.44	5,478.98	5,256.00
RECAPITULATION.			
Chief health office.....	792.97	566.43	475.12
Hospital division.....	41,656.52	43,496.63	40,889.59
Dispensaries.....	2,989.99	3,198.52	3,494.87
Sanitary division.....	28,667.47	31,641.74	27,434.67
Quarantine division.....	5,265.44	5,478.98	5,256.00
	79,372.39	84,382.30	77,550.25

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

	Total number treated.	American.		Other nations.	
		White.	Black.	White.	Black.
Hospital:					
Panama Canal employees.....	414	68	2	39	305
Panama Railroad employees.....	129	11	.....	10	108
Panama Government pa- tients.....	3	.....	.....	.....	3
Other pay patients.....	691	378	.....	74	239
Charity patients.....	79	24	.....	3	52
Total.....	1,316	481	2	126	707
Asylum:					
Panama Canal employees.....	16	.....	.....	5	11
Panama Railroad employees.....	8	.....	.....	.....	8
Panama Government pa- tients.....	215	2	.....	29	184
Other pay patients.....	13	4	.....	4	5
Charity patients.....	58	3	.....	5	50
Total.....	310	9	.....	43	258
Grand total.....	1,626	490	2	169	965
Soldiers.....	272	272	.....	.....	.....
Chronics.....	20	.....	.....	.....	20
Farm (cripples).....	70	.....	.....	14	56

REPORT OF DAYS LOST IN HOSPITAL.

Hospital:					
Panama Canal employees.....	4,657	588	.....	429	3,640
Panama Railroad employees.....	1,925	127	.....	163	1,635
Panama Government pa- tients.....	69	.....	.....	.....	69
Other pay patients.....	6,230	3,201	.....	802	2,227
Charity patients.....	1,153	229	.....	32	892
Total.....	14,034	4,145	.....	1,426	8,463
Asylum:					
Panama Canal employees.....	453	.....	.....	155	298
Panama Railroad employees.....	231	.....	.....	.....	231
Panama Government pa- tients.....	6,383	62	.....	862	5,459
Other pay patients.....	213	37	.....	110	66
Charity patients.....	1,715	93	.....	172	1,450
Total.....	8,995	192	.....	1,299	7,504
Grand total.....	23,029	4,337	.....	2,725	15,967
Soldiers.....	2,398	2,398	.....	.....	.....
Chronics.....	620	.....	.....	.....	620
Farm (cripples).....	1,914	.....	.....	343	1,571

Average cost per subsistence per day, \$0.2589.

TABLE XIV.—ANCON HOSPITAL—Continued.

WARD LABORATORY REPORT.

Blood examinations (total number).....	703
Estivoautumnal.....	123
Quartan.....	2
Tertian.....	20
Differential counts.....	20
Hemoglobulin estimations.....	170
Leucocyte counts.....	128
Red-blood counts.....	1
Stool examinations (total number).....	695
Ascaris lumbricoides.....	19
Cercomonas intestinalis.....	6
Ciliated nomads.....	31
Entameba (hystolition and tetragena).....	4
Guaiac tests.....	1
Pus and blood.....	75
Strongloides.....	23
Tenia saginata dispar (ova).....	2
Tricocephalus dispar.....	38
Uncinaria (ova).....	19
Urine examinations (total number).....	2,009
Albumen.....	454
Bile.....	87
Casts.....	441
Epitholia.....	918
Guaiac tests.....	11
Indicon.....	67
Pus.....	566
Pus and blood.....	96
Sugar—(positive 1, negative 176).....	177
Sputum examinations (total number).....	374
Positive for tubercle bacilli.....	22
Smear examinations (total number).....	30
Urethral.....	9
Vaginal.....	9
Eye.....	3
Prostatic.....	1
Spinal fluid.....	8
Albumin estimation.....	1

REPORT OF SURGICAL OPERATIONS.

	Number.	Died.
Amputations: Digits, multiple.....	1	.....
Operations on bones:		
Craniectomy, decompressive.....	1	.....
Ostectomy.....	2	.....
Wiring of fractures—		
Simple.....	1	.....
Compound.....	1	.....
Adenectomy:		
Cervical.....	1	.....
Inguinal—		
Single.....	15	.....
Compound.....	5	.....
Femoral.....	1	.....
Herniotomy: Inguinal, single.....	2	.....
Genito-urinary tract:		
Urethrotomy—		
Internal.....	2	.....
External.....	1	.....

TABLE XIV.—ANCON HOSPITAL—Continued.
REPORT OF SURGICAL OPERATIONS—Continued.

	Number.	Died.
Genito-urinary tract—Continued.		
Hydrocele—		
Single, radical cure.....	3	.....
Double, radical cure.....	1	.....
Epididymotomy.....	8	.....
Curetage uteri.....	13	.....
Perineoplasty.....	1	.....
Trachelorrhaphy.....	1	.....
Obstetrical:		
Caesarian section, vaginal.....	1	.....
Low forceps.....	2	.....
Rectum:		
Hemorrhoids, radical cure.....	6	.....
Fistula in anus, excision of.....	2	.....
General:		
Thyroidectomy.....	1	.....
Aneurismorrhaphy.....	1	.....
Varicose veins, excision of.....	4	.....
Excision of surface neoplasms.....	5	.....
Plastic operation for—		
Severe injuries.....	1	.....
Effects of disease.....	1	.....
Laparotomy:		
Exploratory.....	1	.....
Castroenterostomy.....	1	.....
Enterectomy.....	1	.....
Appendectomy.....	16	.....
Colostomy.....	1	.....
Supravaginal hysterectomy.....	4	1
Hysteromyomectomy.....	5	.....
Salpingectomy—		
Single.....	1	.....
Double.....	2	.....
Salpingo-oophorectomy.....	5	.....
Ovarian cystectomy.....	1	.....
Oophorectomy.....	1	.....
Suspensio-uteri.....	3	.....
Plastic operation for chronic pelvis peritonitis.....	1	.....
Major operations.....	3	.....
Minor operations.....	105	.....
Total.....	235	1

REPORT OF OPERATIONS, EYE AND EAR CLINIC.

Tonsillectomy.....	17
Adenoidectomy.....	13
Submucous resectory.....	9
Minor eye.....	3
Minor ear.....	3
Turbinectomy.....	3
Pterygium transplantations.....	2
Total.....	48
Refractions.....	92

TABLE XIV.—ANCON HOSPITAL—Continued.
REPORT OF OUT-PATIENT DEPARTMENT.

Clinic.	Total visits.	New cases.	Pay cases.	Prescriptions.
Medical.....	288	224	45	252
Surgical.....	236	105	8	34
Eye and ear.....	659	212	3	61
Total.....	1,183	541	56	347

MONTHLY VACCINATION REPORT.

Number of adults vaccinated.....	48
Number of "takes".....	10
Number of school children vaccinated.....	24
Number of "takes".....	1

BOARD OF HEALTH LABORATORY.

Bacteriological examinations of—	
Blood cultures.....	16
Throat cultures.....	111
Urines.....	73
Stools.....	101
Sputum.....	4
Pathological fluids, exudated, etc.....	14
Smears, gonococcus.....	17
Culture of autopsies.....	3
Leper suspects.....	7
Milk.....	7
Dairy milk from Corozal.....	30
Miscellaneous.....	1
Wassermann reactions.....	847
Agglutination reactions.....	5
Amebic pyorrhea.....	11
Antityphoid vaccinations.....	1
Animal inoculations.....	10
Blood for malaria.....	28
Dark field examinations.....	13
Chemical examinations of—	
Mother's milk.....	6
Urines.....	6
Beer.....	1
Fat determinations of milk from Corozal farm.....	23
Spinal fluids—	
Butyric acid test.....	11
Ammonium sulphate.....	11
Phenol test.....	11
Colloidal gold.....	9
Pathological tissues prepared—paraffin, 568; frozen, 2.....	570
Surgical tissues reported.....	73
Placental smears examined.....	21
Autopsies performed.....	21
Animals autopsied.....	19
Rats examined:	
<i>Mus musculus</i>	489
<i>Mus norvegicus</i>	793
<i>Mus alexandrinus</i>	12
<i>Mus rattus</i>	153
	1,447
Bodies embalmed.....	4
Interments at Corozal.....	7
Taken to Panama.....	2
Taken to Mount Hope.....	1
Cremations.....	17

TABLE XIV.—ANCON HOSPITAL—Continued.

MOSQUITOES IDENTIFIED AT THE BOARD OF HEALTH LABORATORY DURING
AUGUST, 1916.

Stations.	Anopheles, albianus.	Anopheles, tarisaculata.	Anopheles, pseudopunctipennis.	Anopheles, apircimacula.	Anopheles, malefactor.	Culex and allied genera.	Mansonia titillans.	Mansonia nigricans.	Stegomyia.	Aedes taeniorhynchus.	Wyeomyia.	Aedeomyia squamipennis.	Sabathes.	Jlotia.	Hemogogue.	Total.
Ancon.....						62	65		2	3	3					135
Balboa.....						41	840			17						898
Corozal post.....	34					38	347	1		9			1			430
Corozal district.....	3					1	119				1					124
Pedro Miguel.....	22					38	670				3					733
Pedro Miguel railroad station.....	14		1			6	2,193									2,214
Paraiso.....	16					83	1,355		24							1,478
Lirio and Cerio.....	4						1,256									1,260
Rio Grande.....						6	2,406									2,412
Red Tank.....	7					1	1,224									1,232
Dredges, Culebra Cut.....	21		1		1	434	1,567		93							2,117
Tower R.....							87									87
Gamboa.....	58					27	6,030				1					6,116
Other places in Pedro Miguel district.....	2					2	229			20				1		254
Gatun.....	912	35		1		98	701	1								1,748
New Gatun.....	743	27		5		64	762									1,601
Frijoles.....	1,231	36				67	7,563				1					8,898
Monte Lirio.....	350	1				50	4,927									5,328
Barracks, Cristobal.....	102	69			1,297		21	2	1	2						1,494
Silver Married Quar- ters, Cristobal.....	56	47			1,083		16		8	1						1,211
Mount Hope village.....	343	261				194	485	13	2		1	1				1,300
Colon Hospital.....	91	71		1	1,068		553	1	1	9						1,795
Other places, Colon— Cristobal district.....	129	34				435	122	3		1	1					725
Fort Grant.....						6	9			85						100
Camp Gaillard.....	2			1	2	89	7,536				6					7,636
Empire.....						5	663				1					669
Camp E. S. Otis.....					1	38	4,358				1					4,398
Fort Randolph.....	1,590	704				103	385			9		1				2,792
Fort Sherman.....	119	28				422	3,275	2		5					3	3,854
Total.....	5,849	1,313	2	2	10	5,758	49,764	23	131	141	39	2	1	1	3	63,039

COROZAL HOSPITAL.
STATEMENT OF COMMITMENTS, DISCHARGES, AND DEATHS.

	Male.	Female.
Commitments:		
From Canal Zone, first admission.....	6	3
From Panama government, first admission.....	3	5
From Panama government (retransfer from Ancon Hospital).....	13	.....
Total.....	12	8

	Well.		Improved.		Unimproved.	
	Male.	Female.	Male.	Female.	Male.	Female.
Discharges:						
Barbados.....		2 1	2 3		2 2	.....
Italy.....					3 1	.....
Panama.....					3 2	4 1
Spain.....	1					
United States.....			2 1		2 1	
Total.....	1	1	4		6	1

Deaths.		Medical diagnosis.	Mental diagnosis.
Male.	Female.		
1		Tertiary syphilis.....	Psychosis associated with syphilis.
1		Lobar pneumonia; tertiary syphilis.	Psychosis undifferentiated.
1		Arteriosclerosis; multiple abscesses of the lungs.	Psychosis associated with arteriosclerosis.

¹ Had been transferred Ancon Hospital for surgical treatment.

² 6 deported to Barbados; 2 to United States; 1 to Italy.

³ 1 transferred Ancon Hospital for surgical treatment.

⁴ 1 eloped.

TABLE XV.—COLON HOSPITAL.

NATIONALITY OF PATIENTS.

	White American.	White foreign.	Black.	Total.
Panama Canal employees.....	17	8	38	63
Panama Railroad employees.....	6	3	45	54
Panama pay.....	.....	1	10	11
Other pay.....	24	21	10	55
Charity cases.....	7	2	3	12
Total.....	54	35	106	195

TABLE XV.—COLON HOSPITAL—Continued.

LABORATORY REPORT.

Blood examinations.....	86
Estivo-autumnal.....	45
Tertian.....	4
White-blood counts.....	4
Differential counts.....	9
Hemoglobin.....	2
Stool examinations.....	12
Tricocephalus dispar.....	1
Strongyloides.....	1
Ascaris lumbricoides.....	1
Urine examinations.....	191
Albumen.....	38
Pus.....	19
Blood.....	3
Sugar.....	2
Crystals.....	28
Bile.....	1
Sputum examinations.....	12
Positive for tubercle bacilli.....	2
Smear examinations.....	4
Urethral.....	2

SURGICAL OPERATIONS.

Amputations: Forearm.....	1
Herniotomy:	
Inguinal, single.....	5
Inguinal, double.....	3
Genito-urinary tract: Curetage uteri.....	2
Rectum: Hemorrhoids, radical cure.....	1
General:	
Aneurismorrhaphy matos obliterative, femoral.....	1
Tenorrhaphy and myorrhaphy combined.....	3
Excision of surface neoplasms.....	1
Laparotomy:	
Gastro-enterostomy.....	1
Appendectomy.....	2
Appendectomy with local peritonitis.....	2
Minor operations, various.....	11
Minor operations, various (dispensary).....	133
Obstetrical: Deliveries.....	7

TABLE XVI.—PALO SECO LEPER ASYLUM.

NATIONALITY OF PATIENTS.

Class.	Number treated.		Americans.		Others.	
	White.	Black.	White.	Black.	White.	Black.
Pay cases.....	2	38			2	38
Charity cases.....	2	26			2	26
Total.....	4	64			4	64

Cost of subsistence per patient per day, \$0.23.

TABLE XVII.—SANTO TOMAS HOSPITAL.

	Remain- ing Aug. 1.	Admit- ted.	Dis- charged.	Died.	Remain- ing. Aug. 31.
Pay cases.....	44	52	76	3	17
Charity cases.....	432	911	827	90	426
Total.....	474	963	903	93	443

Average number of patients constantly sick.....	440
Total number of days treatment.....	13,717
Average number of days treatment for each patient.....	9

NATIONALITY.

Class.	Number treated.	Americans.		Other nations.	
		White.	Black.	White.	Black.
Pay cases.....	96	15	.....	27	54
Charity cases.....	1,343	.....	.....	155	1,188
Total.....	1,439	15	.....	182	1,242

DISPENSARY REPORT.

Class.	White.	Black.	Total.
Natives.....	50	679	729
Foreigners.....	68	410	478
Total.....	118	1,089	1,207

DISEASES TREATED.

Malaria.....	30
Measles.....	7
Diphtheria and croup.....	10
Influenza.....	6
Dysentery.....	12
Other epidemic diseases.....	5
Purulent infection and septicemia.....	15
Pellagra.....	6
Tuberculosis of the lungs.....	22
Abdominal tuberculosis.....	1
Syphilis.....	47
Soft chancre.....	4
Gonococcus infection.....	44
Cancer and other malignant tumors—	
Of the buccal cavity.....	1
Of the female genital organs.....	2
Of the skin.....	1
Of other organs.....	2
Leuchemia.....	1
Alcoholism (acute or chronic).....	12
Locomotor ataxia.....	1
Other forms of mental alienation.....	4
Epilepsy.....	4

TABLE XVII.—SANTO TOMAS HOSPITAL—Continued.

DISEASES TREATED—Continued.

Hysteria.....	5
Neuralgia and neuritis.....	5
Other diseases of the nervous system.....	9
Other diseases of the eyes and their annexa.....	11
Organic diseases of the heart.....	7
Diseases of the arteries.....	4
Diseases of the veins.....	6
Diseases of the lymphatic system.....	22
Hemorrhage; other diseases of the circulatory system.....	1
Chronic bronchitis.....	14
Broncho-pneumonia.....	6
Pleurisy.....	3
Asthma.....	1
Other diseases of the respiratory system.....	1
Diseases of the teeth and gums.....	1
Diseases of the pharynx.....	6
Other diseases of the stomach (cancer excepted).....	2
Diarrhea and enteritis (under 2 years).....	8
Diarrhea and enteritis (2 years and over).....	12
Ankylostomiasis.....	67
Appendicitis and typhlitis.....	5
Hernias, intestinal obstructions.....	18
Diseases of the anus and fecal fistula.....	2
Other diseases of the intestines.....	5
Biliary calculi.....	1
Other diseases of the liver.....	4
Diseases of the spleen.....	1
Simple peritonitis (nonpuerperal).....	1
Pneumonia.....	6
Bright's disease (chronic nephritis).....	10
Other diseases of the kidney.....	2
Diseases of the bladder.....	7
Diseases of the urethra.....	11
Nonvenereal diseases of the female genital organs.....	12
Uterine hemorrhage.....	2
Uterine tumor (noncancerous).....	3
Metritis.....	9
Other diseases of the uterus.....	12
Cysts and tumors of the ovary.....	1
Salpingitis and other diseases of the female genital organs.....	8
Nonpuerperal diseases of the breast (cancer excepted).....	1
Normal labor.....	80
Accidents of pregnancy.....	24
Puerperal hemorrhage.....	2
Puerperal albuminuria.....	1
Furuncle.....	2
Acute abscess.....	10
Other diseases of the skin and annexa.....	34
Congenital malformations.....	4
Diseases of the bones.....	6
Diseases of the joints.....	6
Amputations.....	1
Other diseases of the organs of locomotion.....	2
Nurslings discharged from hospital without disease.....	85
Burns (conflagration excepted).....	3
Traumatism by firearms.....	9
Traumatism by cutting or piercing instruments.....	12
Traumatism by other crushings.....	1
Injuries by animals.....	1
Dislocations.....	4
Fractures.....	19
Other external violence.....	17
Disease not specified or ill-defined.....	3
No disease.....	28
Total.....	903
Deaths of patients.....	93

TABLE XVII.—SANTO TOMAS HOSPITAL—Continued.

SURGICAL OPERATIONS.

	Number.	Died.
Amputation of thigh.....	1	.....
Amputation of foot.....	2	.....
Amputation of digits, multiple.....	6	.....
Ostectomy.....	2	.....
Excision of maxilla.....	1	.....
Resection of elbow.....	1	.....
Wiring of fractures, simple.....	1	.....
Wiring of fractures, compound.....	2	.....
Adenectomy:		
Cervical.....	1	.....
Inguinal, single.....	5	.....
Herniotomy:		
Inguinal, single.....	15	.....
Inguinal, double.....	1	.....
Femoral.....	1	.....
Ventral.....	1	.....
Combined (any two of the above).....	1	.....
Cystotomy.....	1	.....
Urethrotomy:		
Internal.....	4	.....
External.....	3	.....
Hydrocele, single, radical cure.....	1	.....
Orchidectomy.....	1	.....
Epididymotomy.....	1	.....
Curetage uteri.....	8	.....
Perineoplastic.....	1	.....
Vaginal sections.....	5	.....
Perineorrhaphy.....	2	.....
Hemorrhoids, radical cure.....	4	.....
Plastic operation for severe injuries.....	1	.....
Gunshot wound of soft parts, operation for.....	1	.....
Skin graft.....	13	.....
Laparotomy exploratory.....	1	.....
Gastro-enterostomy.....	1	.....
Appendectomy.....	10	.....
Appendectomy, with local peritonitis.....	1	.....
Colostomy.....	1	.....
Cholecystostomy.....	2	.....
Cholecystectomy.....	1	.....
Choledochotomy.....	1	.....
Splenectomy.....	1	.....
Panhysterectomy.....	1	1
Supravaginal hysterectomy.....	4	.....
Myomectomy.....	2	.....
Salpingectomy, single.....	2	.....
Salpingo-oophorectomy.....	9	.....
Suspensio-uteri.....	2	.....
Minor various operations.....	54	.....
Total.....	180	1

TABLE XVIII.—SUMMARY OF SANITARY WORK PERFORMED AND MATERIAL EXPENDED DURING THE MONTH OF AUGUST IN THE CANAL ZONE.

Work requests on supply department:	
Grass cutting.....	30
Screening.....	8
Miscellaneous.....	13
Work requests on municipal engineering department.....	18
Work requests on other departments.....	1
Buildings inspected:	
For screening.....	1,733
For mosquitoes.....	4,438
For general sanitation.....	2,260
Stores, inspections of.....	24
Restaurants, inspections of.....	16
Ships, inspection of.....	82
Pit closets, inspections of.....	552
Closets disinfected.....	793
Garbage cans emptied.....	2,912
Houses fumigated and disinfected.....	5
Rat traps in use.....	425
Rats destroyed.....	637
Adult Anopheles caught.....	3,043
Adult culices caught.....	29,011
Stegomyia destroyed.....	95
Fly-breeding places destroyed.....	6
Larvacide used..... gallons.....	589
Crude oil used..... do.....	17,061
Kerosene used..... do.....	918

SUMMARY OF ROUTINE WORK DONE BY PANAMA HEALTH OFFICE.

General sanitation:	
Linear feet of ditches cleaned and maintained.....	29,620
Linear feet of new ditches dug.....	2,520
Number of cubic yards of earth used in filling.....	0
Gallons of larvacide used.....	600
Gallons of crude oil used.....	5,805
Square yards of pools oiled.....	439,650
Water containers treated.....	14,890
Mosquito-breeding places found (Stegomyia 108).....	327
Fly-breeding places found.....	47
Flies trapped (13,000 per quart)..... quarts.....	66
Number of rats killed.....	979
Number of room disinfections.....	18
Square feet of vegetation removed.....	383,950
Garbage collection:	
Number of loads of garbage removed to dump.....	5,771
Number of cubic yards of garbage removed to dump.....	8,756
Total number of cans garbage emptied.....	42,509
Buildings:	
Number of buildings inspected.....	4,952
Number of plans for new buildings approved.....	18
Number of permits issued for repairs to old buildings.....	79
Total number of building permits issued.....	97
Number of buildings condemned.....	8
Number of stables condemned.....	0
Number of buildings demolished.....	5
Street cleaning:	
Average number of square yards of streets cleaned daily.....	600,000
Average number of square yards of streets sprinkled daily.....	45,000
Number of private properties cleaned during month.....	2
Number of notices served and nuisances abated.....	397
Vaccination:	
Number of vaccinations performed during month.....	1,324
Total number of vaccinations since Apr. 1, 1914.....	24,863

TABLE XVIII.—SUMMARY OF SANITARY WORK, ETC.—Continued.

MONTHLY WORK REPORT FOR COLON AND CRISTOBAL AND MOUNT HOPE.

Sanitation, Colon-Cristobal:

Streets cleaned	square yards..	4, 200, 604
Alleys maintained	do.....	702, 000
Private properties cleaned		777
Fumigated	cubic feet..	
Quinine issued	doses..	6, 925
Fogs caught		56
Dogs killed		
Rats caught		236
Loads of yard garbage disposed of		710
Cans garbage (cubic yards, 2,598)		67, 722
Colon dump maintained.		
Litches constructed (cubic yards, 92)	linear yards..	850
Ditches maintained	do.....	898
Vegetation removed—		
Colon	acres..	2
Quarantine station	do.....	3½
Panama Railroad properties	do.....	35
Colon Hospital	do.....	3½
Panama Railroad reservation, Colon	do.....	30
Parkway and E Street maintained.		
Square yards oiled		61, 680
Receptacles treated		45, 630
Mosquitoes caught on Colon Hospital screens—		
Culex		1, 600
Anopheles		118
Fly-breeding places destroyed		3
Buildings inspected		11, 205
Larvacide used in Colon	gallons..	131. 87
Crude oil used in Colon	do.....	1, 375
Nuisances abated		361

Building, Colon:

Building plans approved		6
Permits to occupy issued		8
Permits to repair issued		41
Bills collected		164

Sewers, Colon:

New connections made during the month		7
Total number of connections made to date		1, 338
Houses to which connections were made		18
Outstanding permits		42

Sanitation, Cristobal:

Cans garbage (cubic yards, 740)		14, 646
Loads of yard garbage handled		231
Square yards oiled		13, 701
Receptacles treated		10, 320
Larvacide used	gallons..	19. 5
Crude oil used	do.....	525
Buildings inspected		2, 250
Nuisances abated		64

Sanitation, Mount Hope:

Cans garbage (cubic yards, 178)		1, 524
Square yards oiled		193, 000
Doses of quinine issued		556
Receptacles treated		28, 700
Mosquito breeding places destroyed		139

Mosquitoes caught—	Anopheles	Culex.
Barracks	175	1, 460
Sil. mar. quarters	48	1, 067
Steamships	65	318
Mount Hope Village	239	457

Total	527	3, 302
Larvacide used	gallons..	200
Crude oil used	do.....	2, 930

TABLE XVIII.—SUMMARY OF SANITARY WORK, ETC.—Continued.

MONTHLY WORK REPORT, ETC.—Continued.

Sanitation, Mount Hope—Continued.

Mount Hope Cemetery maintained—

Ditches constructed—

Mindi Islands (824 cubic yards).....	linear yards..	4,732
Mount Hope (89 cubic yards).....	do.....	400
Maintained.....	do.....	11,375
Vegetation removed.....	square yards..	254,350
Burials during the month.....		54

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

Vessels inspected and passed.....	205
Vessels held in quarantine.....	15
Total number of vessels entered.....	220
Special inspections made to enforce compliance with antiplague and mosquito-breeding regulations.....	156
Vessels fumigated on arrival.....	21
Vessels fumigated on departure.....	1
Vessels detained but sailed in quarantine.....	6
Stowaways inspected.....	21
Crew examined.....	12,270
Passengers examined.....	3,532
	15,823
Supplementary inspections.....	3,011
Persons vaccinated at port of arrival because of compulsory vaccination law.....	320
Persons vaccinated at port of departure or en route because of compulsory vaccination law.....	1,290
	1,610
Persons held in quarantine at the detention houses to complete period of incubation of yellow fever or plague.....	374
Persons held in quarantine on board vessels to complete period of incubation of yellow fever or plague.....	2,081
	2,455
Total number of persons landed from foreign ports:	
Cabin.....	1,652
Steerage.....	1,124
	2,776
Total number of persons embarked for foreign ports:	
Cabin.....	1,862
Steerage.....	1,474
	3,336
Total number of persons arriving from coast towns on small launches and sailing craft.....	1,685
Total number of persons sailing from coast towns on small launches and sailing craft.....	1,363
Apparent increase for month from coast towns.....	322
Apparent decrease for month from foreign ports:	
Cabin.....	210
Steerage.....	350
	560
Clearances issued.....	53
Bills of health issued or viséed.....	211
Inspection of docks.....	10
Total number of persons landed.....	4,461
Less number for Pacific ports.....	226
	4,235
Total number of persons sailing.....	4,699
Total apparent decrease for month.....	464

TABLE XIX.—CONSOLIDATED REPORT OF QUARANTINE TRANSACTIONS, ETC.—Continued.

IMMIGRATION REPORT FOR COLON AND CRISTOBAL.

From—	Cabin.	Steerage.
Europe.....	9	9
United States.....	670	155
Jamaica and West Indies.....	73	308
Venezuela.....	11	4
Colombia.....	70	145
Cuba.....	27	16
Costa Rica.....	89	14
Bocas del Toro.....	28	134
Coast towns.....	0	154
Total.....	977	939
Grand total.....	1,916	

Men.....	864
Women.....	484
Children.....	272
United States troops.....	142
Unclassified.....	154
	1,808

QUARANTINE TRANSACTIONS AT THE PORT OF BOCOS DEL TORO, PANAMA.

Vessels inspected and passed.....	19
Crew inspected and passed.....	1,332
Passengers inspected and passed.....	238
Passengers, in transit, inspected and passed.....	89

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

TABLE XX.—STATEMENT OF QUININE ISSUED.

Quinine sulphate.....	kilos..	22.00
Pounds avoirdupois.....	do....	48.50

TABLE XXI.—PERSONNEL REPORT.

	August, 1916.			July, 1916.	August, 1915.
	Gold em- ployees.	Silver em- ployees.	Total em- ployees.	Total em- ployees.	Total em- ployees.
Chief health officer.....	5	-----	5	5	4
Medical storehouse.....	4	4	8	8	8
Quarantine division.....	15	34	49	46	43
Health office, Panama.....	11	152	163	164	173
Health office, Colon-Mount Hope.....	9	175	184	194	167
Ancon Hospital.....	125	250	375	371	323
Colon Hospital.....	15	25	40	41	34
Santo Tomas Hospital.....	6	-----	6	6	4
Palo Seco Leper Asylum.....	2	38	40	36	35
Zone sanitation.....	7	132	139	135	126
Hospital farm.....	2	63	65	58	45
Dispensaries:					
Balboa.....	5	3	8	7	6
Corozal.....	-----	-----	-----	-----	4
Gamboa.....	2	-----	2	1	1
Gatun.....	2	2	4	4	4
Naos Island.....	-----	-----	-----	-----	1
Paraiso.....	2	2	4	4	4
Pedro Miguel.....	3	1	4	4	3
Total.....	215	881	1,096	1,084	985



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