

Rockefeller Foundation. International Health Commission

2018  
E-640

*File; Col. W. Caldwell*  
*C.A. 7-2* *2015* *83158*

Report of Work for the  
RELIEF AND CONTROL OF UNGINARIASIS  
IN BRITISH GUIANA

Up to March 31, 1915.

*Boy*  
*1098*

THE ROCKEFELLER FOUNDATION  
INTERNATIONAL HEALTH COMMISSION

61 BROADWAY, NEW YORK, U. S. A.

POSTAL SERVICE  
350510  
WASHINGTON, D. C. U.S.A.

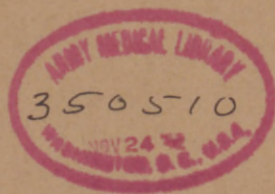
National Library of Medicine



PROPERTY OF THE  
NATIONAL  
LIBRARY OF  
MEDICINE

Report on Work for the  
RELIEF AND CONTROL OF UNCINARIASIS IN BRITISH GUIANA  
Up to March 31, 1915.

LIBRARY  
OCT 1. 1915  
SURGEON GENERAL'S OFFICE





BRITISH GUIANA

1. Plan of Work. All work in British Guiana is conducted on the intensive plan, which contemplates, as nearly as practicable, the complete relief and control of uncinariasis within restricted areas.

3. Extent of Operations. Work in the Peters' Hall District, lying on the East Bank of the Demerara river, near Georgetown, terminated during the quarter ending March 31, 1915; and operations in three areas (A, B, C) on the West Bank were begun. The time spent in each of these districts is shown below:

	Date Work Opened	Date Work Closed
<u>EAST BANK:</u>		
Area A .....	Nov. 1914	March 30, 1915
" B .....	March 1914	Jan. 23, 1915
" C .....	Sept. 1914	Jan. 16, 1915
<u>WEST BANK:</u>		
Area A .....	Feb. 1, 1915	-----
" B .....	Jan. 9, 1915	-----
" C .....	March 24, 1915	-----

In comparing the results in the areas on the West Bank with those in the areas on the East Bank, it should be borne in mind that work on the West Bank is still in progress.

I. RESULTS BY AREAS UP TO MARCH 31, 1915

1. Locating the Infected. The census of persons living on both the East and West Banks, up to March 31, 1915, was 19,713. Of these, 17,438, or 88.5 per cent., have been microscopically examined for uncinariasis; 10,653, or 61.1 per cent., of those examined have been found infected; and first treatment has been given to 8,827, or 82.9 per cent., of those infected.

Table 1 exhibits these results in detail for each of the six areas where work has been in progress:

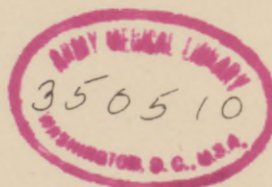


Table 1	GRAND TOTAL		EAST BANK								WEST BANK							
	TOTAL		TOTAL		Area A		Area B		Area C		TOTAL		Area A		Area B		Area C	
	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.
1. Census ....	19713	----	10380	----	3988	----	3532	----	2832	----	9332	----	4008	----	4954	----	376	----
2. Examined...	17438	88.5	9537	91.9	3575	89.7	3206	90.0	2756	97.3	7901	84.7	3180	79.5	4823	93.3	98	26.1
3. Infected...	10652	51.1	5590	58.6	1759	49.3	1918	59.8	1913	69.4	5062	64.1	2009	63.2	2981	64.5	72	73.5
4. Given First Treatment	8827	82.9	5160	92.3	1514	86.1	1876	97.8	1770	92.5	3557	72.4	1300	64.7	2387	79.4	---	----

2. Treating the Infected Until Cured. The number of persons found infected, up to March 31, 1915, was 10,652. Of these, 5,828, or 54.7 per cent., have been shown by microscopic re-examination to have been cured. The remaining 4,824, or 45.3 per cent., consist of persons who remain under treatment (2,412, or 22.6%); of persons who have removed from the areas (1,957, or 18.4%); of persons who could not be treated (447, or 4.2%) but who remain in the district as foci of infection; and of persons who died (8, or .08%) but whose death was not connected with thymol administration.

Table 2 gives these figures in detail for each area:

Table 2	GRAND TOTAL		EAST BANK								WEST BANK							
	TOTAL		TOTAL		Area A		Area B		Area C		TOTAL		Area A		Area B		Area C	
	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.	No.	P.C.
1. Infected...	10652	----	5590	----	1759	----	1918	----	1913	----	5062	----	2009	----	2981	----	72	----
2. Cured.....	5828	54.7	4109	73.5	1121	63.7	1427	74.4	1561	81.6	1719	34.0	409	20.4	1310	43.9	---	----
3. Under treatment	2412	22.6	484	8.7	176	10.0	223	11.6	85	4.5	1928	38.1	686	44.1	1043	35.0	---	----
4. Removed from area	957	18.4	710	12.7	320	18.2	204	10.6	186	9.7	1247	24.6	663	33.0	512	17.2	72	100.
5. Not treated	447	4.2	280	5.0	142	8.1	57	3.0	81	4.2	157	3.3	51	2.5	116	3.9	---	----
6. Died*.....	8	.08	7	.1	---	----	7	.4	---	----	1	.02	---	----	1	.03	---	----

3. Per Capita Cost of Examinations. Up to March 31, 1915, a total of \$10,963.82 had been expended in British Guiana for examining 17,438 persons. From this the per capita cost of examinations is found to be \$.62. Table 3 shows in detail the figures for each area:

\*Death not connected with thymol administration.

Table 3	Cost Per Person Examined	Amount Expended	Number of Persons Examined
GRAND TOTAL, .....	\$.62	\$10,963.62	17,438
EAST BANK: Total .....	.90	8,545.39	9,537
Area A .....	.53	1,900.04	3,575
" B .....	1.24	3,964.33	3,206
" C .....	.45	1,235.07	2,756
Supervision by Dr.Howard	----	1,445.95	-----
WEST BANK: Total .....	.31	2,418.23	7,901
Area A .....	.32	1,004.14	3,180
" B .....	.30	1,386.01	4,623
" C .....	.29	28.08	98

4. Educational Work. Table 4 exhibits the progress made in educational work. It indicates that a total of 34 lectures have been given (24 to public; 4 to school; and 6 to special audiences); and that these 34 lectures have been attended by 8,925 persons (4,618 at public; 692 at school; and 3,615 at special lectures). Based on the census of these districts, of 19,712 persons, we find that 8,925, or 45.3 per cent., have attended lectures and been educated in the measures necessary to relieve and control uncinariasis:

Table 4	TOTAL		PUBLIC		SCHOOL		SPECIAL	
	No.	Atten- dance	No.	Atten- dance	No.	Atten- dance	No.	Atten- dance
TOTAL .....	34	8925	24	4618	4	692	6	3615
EAST BANK: Total ....	26	5270	17	1638	4	692	5	2940
Area A .....	2	440	--	---	-	---	2	440
Area B .....	13	3512	10	1400	2	312	1	1800
Area C .....	11	1318	7	238	2	380	2	700
WEST BANK: Total ....	8	3655	7	2980	--	---	1	675
Area A .....	3	1234	3	1234	--	---	-	---
Area B .....	4	1989	3	1314	--	---	1	675
Area C .....	1	432	1	432	--	---	-	---

5. Preventive Measures. Measures for the prevention of uncinariasis are conducted by a staff of sanitary inspectors appointed by the government. The type of latrine adopted is the ordinary pit privy with a bank of clay around the top of the pit to keep out surface waters. The dimensions of the pit are three feet long, two feet wide, two and one-half feet deep. The pit is dug shallow to prevent the tapping of ground water, which rises

very high during the wet seasons.

In Table 5 the symbol D indicates a privy where night soil falls on the ground but is protected from flies, fowls, and animals; E, one built for concealment only, with no protection from flies, fowls, and animals; and F represents no latrine accomodation.

The improvement in sanitation of areas A, B and C on the East Bank is not indicated clearly in this table because of an error in making the initial sanitary survey. The number of homes inspected should have been reported as 2638, instead of 2120. On the supposition, however, that the incorrect figures afford a true average, we find that the percentage of homes with latrine accomodation was raised from 40.2% when the work began to 66.6% when it ended,- an increase of 26.4%.

The initial sanitary survey on the West Bank is still in progress. From figures now available the number of homes with privies is shown to be 1,280, or 45.8% of the total:

Table 5	Final Inspection							Initial Inspection							
	Type of Privy							Type of Privy							
	Total	A	B	C	D	E	F	Total	A	B	C	D	E	F	
TOTAL .....															
EAST BANK: Total ....	2638				1440	317	881	2120*				307	546	1267	
Area A .....								844*				129	266	449	
" B .....								525*				157	93	275	
" C .....								751				21	187	543	
WEST BANK: Total ....								2789				1167	113	1509	
Area A .....								1149				630	56	463	
" B .....								1499				536	47	916	
" C .....								141				1	10	130	

## II. RESULTS BY AREAS FOR FIRST QUARTER, 1915

1. Locating and Treating the Infected. The report for the first quarter 1915 shows that a census was taken of 9,334 additional persons; that 7,957

-----  
\*Figures incorrect; total for East Bank should have been 2,638; for Area A, 909; for Area B, 978.

persons were examined; 5,090 found infected; 3,767 given first treatment; and 2,127 cured. Table 6 gives figures for work accomplished in each of the six areas during the quarter ending March 31, 1915:

Table 6	TOTAL	EAST BANK				WEST BANK			
		Total	Area A	Area B	Area C	Total	Area A	Area B	Area C
1. Census .....	9334	2	2	---	---	9332	4002	4954	376
2. Examined .....	7957	56	56	---	---	7901	3180	4623	98
3. Infected .....	5090	28	28	---	---	5062	2009	2981	72
4. Given first treatment..	3767	100	99	---	1	3667	1300	2367	--
5. Cured .....	2127	408	344	12	52	1719	409	1310	--

2. Per Capita Cost of Examinations. The per capita cost of examinations during the quarter ending March 31, 1915, was \$.36. The amount expended was \$2,834.92; the number of persons examined, 7,957. Table 7 itemizes these figures for each area:

Table 7	Cost Per Person Examined	Amount Expended	Number of Persons Examined
TOTAL .....	\$.36	\$2,834.92	7,957
EAST BANK: Total .....	7.44	416.69	56
Area A .....	7.44	416.69	56
" B .....	--	--	--
" C .....	--	--	--
WEST BANK: Total .....	.31	2,418.23	7,901
Area A .....	.32	1,004.14	3,180
" B .....	.30	1,386.01	4,623
" C .....	.29	28.08	98

3. Educational Work. There were eight lectures delivered during the quarter to a total of 3,655 persons. Seven of these lectures were public, attended by 2,980 persons; and one was to a special audience of 675 persons. A report on the educational work in each area is given in Table 8:

Table 8	TOTAL		Kind of Lectures					
			Public		School		Special	
	No.	Atten- dance	No.	Atten- dance	No.	Atten- dance	No.	Atten- dance
TOTAL .....	8	3655	7	2980	--	---	1	675
EAST BANK: Total .....	-	--	-	--	--	---	-	--
Area A .....	-	--	-	--	--	---	-	--
" B .....	-	--	-	--	--	---	-	--
" C .....	-	--	-	--	--	---	-	--
WEST BANK: Total .....	8	3655	7	2980	--	---	1	675
Area A .....	3	1234	3	1234	--	---	-	--
" B .....	4	1989	3	1314	--	---	1	675
" C .....	1	432	1	432	--	---	-	--

### III. RESULTS BY VILLAGES UP TO MARCH 31, 1915

1. Locating the Infected. Table 9 shows by villages the progress made in examining and treating the inhabitants. This table gives the supporting figures upon which Table 1 is based:

Table 9	Census	Examined	Infected	Given First Treatment
GRAND TOTAL .....	19712	17438	10652	8827
EAST BANK: Total .....	10380	9537	5590	5160
Area A: Total .....	3986	3575	1759	1514
LaPenitence .....	1487	1246	581	516
Alexander Ville .....	1905	1791	860	745
Meadow Bank .....	520	467	277	218
Houston Front .....	74	71	41	35
Area B: Total .....	3562	3206	1918	1876
Agricola .....	1330	1210	635	621
Eccles .....	343	333	261	256
Bagotstown .....	780	681	393	383
Peters Hall .....	718	646	386	376
Providence Pasture .....	389	336	243	240
Area C: Total .....	2832	2756	1913	1770
Mocha .....	256	244	148	140
Arcadia .....	189	176	124	110
Covent Garden .....	359	348	223	208
Prospect .....	82	80	41	38
Diamond Front .....	80	78	56	50
Big Grove .....	1129	1111	829	767
Little Grove .....	399	386	281	260
Craig .....	310	305	191	179
Hope .....	28	28	20	18

Table 9 (continued)	Census	Examined	Infected	Given First Treatment
WEST BANK: Total .....	9332	7901	5062	3667
<u>Area A: Total .....</u>	<u>4002</u>	<u>3180</u>	<u>2009</u>	<u>1300</u>
Best .....	--	--	--	--
Vreed-en-Hoop .....	660	86	53	--
Pouderoyen ..	1263	1109	641	412
Goed Fortuin .....	1060	1042	654	539
LaGrange .....	1019	943	661	349
<u>Area B: Total .....</u>	<u>4954</u>	<u>4623</u>	<u>2981</u>	<u>2367</u>
<u>Bagotville .....</u>	<u>1972</u>	<u>1846</u>	<u>1194</u>	<u>1039</u>
North Bagotville .....	917	875	574	493
South Bagotville .....	1055	971	620	546
<u>Canal No. 1 .....</u>	<u>1641</u>	<u>1491</u>	<u>1025</u>	<u>650</u>
L'Heureuse Adventure..	190	178	116	109
Vaux Hall .....	317	301	189	182
Beauvosin .....	141	124	78	67
L'Oratoire .....	119	117	65	55
Bordeaux .....	42	41	31	27
Genieve .....	81	73	58	42
Mesdelices .....	60	56	48	41
Jacoba Constantia ....	77	74	54	51
Fiticoo .....	152	133	96	76
Java .....	18	14	9	--
DeRidder's Faith .....	75	62	45	--
Sans Souci .....	99	95	69	--
Studley Park .....	33	29	21	--
DeKinderen .....	--	--	--	--
The Lock .....	237	194	146	--
Toe Vlucht .....	88	86	50	45
LaRetraite .....	351	340	175	155
Stanleytown .....	902	860	537	478
<u>Area C: Total .....</u>	<u>376</u>	<u>98</u>	<u>72</u>	<u>--</u>
Good Intent .....	--	--	--	--
Sisters .....	--	--	--	--
Vive le Force .....	227	98	72	--
Potosi .....	74	--	--	--
Free and Easy .....	75	--	--	--

2. Treating the Infected Until Cured. Table 10 shows by villages the progress made up to March 31, 1915, in curing the infected persons. The supporting figures for Table 2 are given in this table:

Table 10	Infected	Cured	Under Treatment	Removed From Area	Not Treated	Died*
GRAND TOTAL .....	10652	5828	2412	1957	447	8
EAST BANK: Total .....	5590	4109	484	710	280	7
Area A: Total .....	1759	1121	176	320	142	-
LaPenitence .....	581	339	87	139	36	-
Alexander Ville .....	860	543	109	132	76	-
Meadow Bank .....	277	208	--	42	27	-
Houston Front .....	41	31	--	7	3	-
Area B: Total .....	1918	1427	223	204	57	7
Agricola .....	635	485	50	74	24	2
Eccles .....	261	210	25	22	3	1
Bagotstown .....	393	282	40	58	11	2
Peters Hall .....	386	279	66	27	13	1
Providence Pasture .....	243	171	42	23	6	1
Area C: Total .....	1913	1561	85	186	81	-
Mocha .....	148	134	--	8	6	-
Arcadia .....	124	106	--	5	13	-
Covent Garden .....	223	196	--	21	6	-
Prospect .....	41	36	--	4	1	--
Diamond Front .....	56	46	1	3	6	-
Big Grove .....	829	622	75	104	28	-
Little Grove .....	281	239	8	22	12	-
Craig .....	191	165	1	18	7	-
Hope .....	20	17	--	1	2	-
WEST BANK: Total .....	5062	1719	1928	1247	167	1
Area A: Total .....	2009	409	886	663	51	-
Best .....	--	--	--	--	--	-
Vreed-en-Hoop .....	53	--	--	53	--	-
Pouderoyen .....	641	98	314	210	19	-
Goed Fortuin .....	654	295	239	88	32	-
LaGrange .....	661	16	333	312	--	-
Area B: Total .....	2981	1310	1042	512	116	1
Bagotville .....	1194	587	438	114	54	1
North Bagotville .....	574	280	207	58	29	-
South Bagotville .....	620	307	231	56	25	1
Canal No. 1 .....	1025	279	370	345	31	-
L'Heureuse Adventure..	116	56	53	3	4	-
Vaux Hall .....	189	99	83	4	3	-
Beauvosin .....	78	24	42	7	5	-
L'Oratoire .....	65	29	26	2	8	-
Bordeaux .....	31	15	12	4	-	-
Genieve .....	58	8	34	16	-	-
Mesdelices .....	48	4	27	6	1	-
Jacoba Constantia .....	54	18	33	-	3	-
Fitico .....	96	16	60	13	7	-
Java .....	9	--	--	9	-	-
DeRidder's Faith .....	45	--	--	45	-	-
Sans Souci .....	69	--	--	69	-	-
Studley Park .....	21	--	--	21	-	-
DeKinderen .....	--	--	--	--	-	-
The Lock .....	146	--	--	146	-	-

\*Death not connected with thymol administration.

Table 10 (continued)	Infected	Cured	Under Treatment	Removed From Area	Not Treated	Died*
<u>WEST BANK (continued)</u>						
<u>Area B (continued)</u>						
Toe Vlugt .....	50	40	5	2	3	-
LaRetraite.....	175	102	53	15	5	-
Stanleytown .....	537	302	176	36	23	-
<u>Area C: Total .....</u>	<u>72</u>	<u>--</u>	<u>--</u>	<u>72</u>	<u>--</u>	<u>--</u>
Good Intent .....	--	--	--	--	--	-
Sisters .....	--	--	--	--	--	-
Vive le Force .....	72	--	--	72	--	-
Potosi .....	--	--	--	--	--	-
Free and Easy .....	--	--	--	--	--	-

#### IV. RESULTS BY VILLAGES FOR FIRST QUARTER, 1915

1. Locating and Treating the Infected. Table 11 gives figures by villages showing what was done during the first quarter 1915 in examining for, treating, and curing uncinariasis.

Table 11	Census	Examined	Infected	Treated	Cured
GRAND TOTAL .....	9334	7957	5090	3767	2127
EAST BANK: Total .....	2	56	28	100	408
<u>Area A: Total .....</u>	<u>2</u>	<u>56</u>	<u>28</u>	<u>99</u>	<u>344</u>
LaPenitence .....	1	4	3	47	147
Alexander Ville .....	1	51	24	52	194
Meadow Bank .....	-	--	--	--	--
Houston Front .....	-	1	1	--	3
<u>Area B: Total .....</u>	<u>-</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>12</u>
Agriocla .....	-	--	--	--	5
Eccles .....	-	--	--	--	--
Bagotstown .....	-	--	--	--	3
Peters Hall .....	-	--	--	--	1
Providence Pasture .....	-	--	--	--	3
<u>Area C: Total .....</u>	<u>-</u>	<u>--</u>	<u>--</u>	<u>1</u>	<u>52</u>
Mocha .....	-	--	--	--	2
Arcadia .....	-	--	--	--	--
Covent Garden .....	-	--	--	--	--
Prospect .....	-	--	--	--	--
Diamond Front .....	-	--	--	--	--
Big Grove .....	-	--	--	1	4
Little Grove .....	-	--	--	--	35
Craig .....	-	--	--	--	10
Hope .....	-	--	--	--	1

\*Death not connected with thymol administration.

Table 11 (continued)	Census	Examined	Infected	Treated	Cured
WEST BANK: Total .....	9332	7901	5062	3667	1719
<u>Area A: Total .....</u>	<u>4002</u>	<u>3180</u>	<u>2009</u>	<u>1300</u>	<u>409</u>
Best .....	--	--	--	--	--
Vreen-en-Hoop .....	660	86	53	--	--
Pouderoyen .....	1263	1109	641	412	98
Goed Fortuin .....	1060	1042	654	539	295
LaGrange .....	1019	943	661	349	16
<u>Area B: Total .....</u>	<u>4954</u>	<u>4623</u>	<u>2981</u>	<u>2367</u>	<u>1310</u>
<u>Bagotville .....</u>	<u>1972</u>	<u>1846</u>	<u>1194</u>	<u>1039</u>	<u>587</u>
North Bagotville .....	917	875	574	493	280
South Bagotville .....	1055	971	620	546	307
<u>Canal No. 1 .....</u>	<u>1641</u>	<u>1491</u>	<u>1025</u>	<u>650</u>	<u>279</u>
L'Heureuse Adventure ...	190	178	116	109	56
Vaux Hall .....	317	301	189	182	99
Beauvosin .....	141	124	78	67	24
L'Oratoire .....	119	117	65	55	29
Bordeaux .....	42	41	31	27	15
Genieve .....	81	73	58	42	8
Mesdelices .....	60	56	48	41	14
Jacoba Constantia .....	77	74	54	51	18
Fitico .....	152	133	96	76	16
Java .....	18	14	9	--	--
DeRidder's Faith .....	75	62	45	--	--
Sans Souci .....	99	95	69	--	--
Studley Park .....	33	29	21	--	--
DeKinderen .....	--	--	--	--	--
The Lock .....	237	194	146	--	--
Toe Vlucht .....	88	86	50	45	40
LaRetraite .....	351	340	175	155	102
Stanleytown .....	902	860	537	478	302
<u>Area C: Total .....</u>	<u>376</u>	<u>98</u>	<u>72</u>	<u>--</u>	<u>--</u>
Good Intent .....	--	--	--	--	--
Sisters .....	--	--	--	--	--
Vive le Force .....	227	98	72	--	--
Potosi .....	74	--	--	--	--
Free and Easy .....	75	--	--	--	--





**"Hugmotite"**  
**Bulletin Binder**  
Manufactured by  
Vochten Waring Co.  
37-39 E. 28th St.  
New York, U. S. & C.

Patent Pending

NATIONAL LIBRARY OF MEDICINE



NLM 04610427 4