Annual medical and sanitary report / Uganda Protectorate.

UGANDA PROTECTORATE.

ANNUAL

MEDICAL AND SANITARY REPORT

FOR THE

YEAR ENDED 31ST DECEMBER, 1924.

Published by Command of His Excellency the Governor.

ENTEBBE:

PRINTED BY THE GOVERNMENT PRINTER, UGANDA.

1925.

PRINCIPAL MEDICAL OFFICER'S OFFICE,

ENTEBBE, UGANDA,

7th July, 1925.

SIR,

I have the honour to submit, for the information of His Excellency the Governor and for transmission to the Right Honourable the Secretary of State, the Medical Report on the health and sanitary condition of the Uganda Protectorate for the year 1924, together with the Returns, etc., appended thereto.

I have the honour to be,

Sir,

Your obedient servant,

J. HOPE REFORD,

Principal Medical Officer,

Uganda Protectorate.

THE HONOURABLE

THE CHIEF SECRETARY TO THE GOVERNMENT,

ENTEBBE.

LIST OF CONTENTS.

UGANDA PROTECTORATE.

ANNUAL MEDICAL REPORT

FOR THE

YEAR ENDED 31st DECEMBER, 1924.

Section I.

ADMINISTRATIVE.

(A) Staff.

The Establishment for 1924 as Sanctioned in the Estimates was as follows:—

EUROPEAN.

Principal Medical Officer.
Deputy Principal Medical Officer (Native Services).
Deputy Principal Medical Officer.
Surgeon-in-Charge, European Hospital, Kampala.
6 Senior Medical Officers.
24 Medical Officers.
1 Dental Surgeon.
1 Matron.
20 Nursing Sisters.

1 Confidential Clerk.
1 Office Superintendent.
1 Clerk.
1 Storekeeper.
1 Pharmacist.
1 Superintendent, Mulago.
1 Laboratory Assistant, Mulago.
1 Sleeping Sickness Inspector.
1 Superintendent of Mental Hospital and Native Hospital, Hoima.

Chief Sanitation Officer.
1 Sanitation Officer.

1 Supervisor of Native Inspectors.
2 Sanitary Inspectors.

Bacteriologist.
1 Assistant Bacteriologist.

2 Laboratory Assistants.

ASIATIC.

1 Assistant Surgeon.
2 Senior Sub-Assistant Surgeons.
23 Sub-Assistant Surgeons.
6 Compounders.
1 Nurse.
4 Sanitary Inspectors.

1 Assistant Storekeeper.
1 1st Grade Clerk.
4 2nd Grade Clerks.
4 3rd Grade Clerks.
3 4th Grade Clerks.

NATIVE.

A varying number of Native Attendants including:—

Hospital and Dispensary Attendants, etc.
Isolation Hospital and Camp Attendants.
Clerks and Interpreters.
Menial Staff.

Native Vaccinators.
Plague Inspectors.
Sleeping Sickness Inspectors.

(2). Shortages on Establishment.—At the beginning of the year there were the following shortages on establishment:—

(*a*) *Europeans.*
8 Medical Officers.
9 Nursing Sisters.

(*b*) *Asiatics.*
1 Senior Sub-Assistant Surgeon.
2 Sub-Assistant Surgeons.

During the year the following vacancies on establishment were created through transfers, terminations of appointment, promotions, etc.:—

(*a*) *Europeans.*
6 Medical Officers.
3 Nursing Sisters.

(*b*) *Asiatics.*
2 Sub-Assistant Surgeons.
2 Compounders.

13 Medical Officers, 9 Nursing Sisters, 3 Sub-Assistant Surgeons and 2 Compounders were appointed during the year, leaving vacancies on establishment on the 31st December as follows:—

(*a*) *Europeans.*	(*b*) *Asiatics.*
1 Medical Officer.	1 Senior Sub-Assistant Surgeon.
3 Nursing Sisters.	1 Sub-Assistant Surgeon.

(3). APPOINTMENTS, CHANGES, ETC., IN STAFF:—

Appointments:—

Dr. D. G. Garnett, Medical Officer	30- 1-24
Dr. J. P. Mitchell, O.B.E., Do	30- 1-24
Dr. A. J. Boase, Do	16- 2-24
Capt. F. P. Freeman, M.C. Do	22- 2-24
Dr. A. C. Freeth, Do	3- 3-24
Dr. F. V. Small, Do	26- 3-24
Dr. A. T. Schofield, of the C.M.S., to act as Medical Officer, Fort Portal (part time)	14- 5-24
Dr. R. S. McElroy, Medical Officer	24- 7-24
Dr. T. H. Nolan, Do	24- 7-24
Dr. L. D. Dennard, Do	13-11-24
Dr. C. P. Burges, Do	13-11-24
Dr. J. D. Reynolds, Do	13-11-24
Dr. N. C. Macleod, Do	27-11-24
Mr. E. S. Smout, Superintendent, Mulago, to be Superintendent of Lunatic Asylum and Native Hospital, Hoima	1- 1-24
Miss R. H. Bagot, Nursing Sister	16- 2-24
Miss S. E. Oxley, Do	16- 2-24
Miss E. R. Brittain Do	3- 3-24
Miss N. S. Boyd, Do	12- 6-24
Miss I. Baillie, Do	12- 6-24
Miss A. B. Jack, Do	24- 7-24
Miss E. A. McGill, Do	24- 7-24
Miss N. B. Freeman, Do	24- 7-24
Miss B. A. Buck, Do	1- 9-24
Mr. C. W. G. Tiffin, Sanitary Inspector, transferred from Municipal Dept.	1- 1-24
Mr. W. V. Kendall, Sanitary Inspector	18- 9-24

Asiatics.

Mr. Barkat Singh, Sub-Assistant Surgeon	22- 1-24
Mr. Achhar Singh, Do	16- 4-24
Mr. S. V. Arangady, Do	30- 4-24
Mr. U. R. Sohi, Do	22-12-24
Mr. Dhirat Ram, Compounder	11- 5-24
Mr. Syed Mahomed Hussein, Compounder	3- 9-24
Mr. Wazir Singh, Sanitary Inspector, transferred from the Municipal Dept.	1- 1-24
Mr. Hans Raj, Do Do Do	1- 1-24
Mr. B. S. Senaratne, 4th Grade Clerk, transferred from the Agricultural Dept.	5- 5-24
Mr. J. A. Fernandes, 4th Grade Clerk	31 5-24

Acting Appointments:—

	From	*To*
Major G. J. Keane, D.S.O., Deputy P.M.O. (Native Services), Acting P.M.O.	3- 6-24 ...	28-12-24
Major R. J. A. Macmillan, D.S.O., T.D., Senior Medical Officer, Acting D.P.M.O.	16- 6-24 ...	End of year
Dr. W. L. Peacock, Senior Medical Officer, Acting Surgeon i/c European Hospital, Kampala	10- 6-24 ...	do
Dr. H. R. Neilson, Sanitation Officer, Acting Chief Sanitation Officer	1- 1-24 ...	27- 1-24
Dr. J. P. Mitchell, O.B.E., Medical Officer, Acting Senior Medical Officer, Mulago	4-11-24 ...	End of year
Mr. F. G. Caldwell, Clerk, P.M.O.'s Office, Acting Office Superintendent	15- 7-24 ...	do

Promotions:—

Dr. W. L. Peacock, Medical Officer, to be Senior Medical Officer	1- 1-24
Mr. H. G. Smith, Clerk, Agricultural Department, transferred to Medical Department on promotion to Superintendent, Mulago	1- 1-24

Appointments terminated :—

Dr. W. P. Kelly, Temporary Medical Officer	28- 5-24
Dr. A. C. Rendle, Do	1- 5-24
Dr. H. N. Pelly, Do	25- 3-24
Capt. J. E. Brooks, Do	8- 7-24
Miss H. C. Potter, Nursing Sister	11-11-24
Miss M. J. Mackertich, R.R.C., Nursing Sister	15- 4-24
Miss F. E. Warner, Nursing Sister	14- 9-24
Mr. H. M. Thadani, Sub-Assistant Surgeon	3- 5-24
Mr. V. V. Chitale, Compounder	3- 4-24
Mr. S. R. S. Pillai, Do	14- 8-24

Resignations : —

Dr. S. R. Eccles Davies, Medical Officer on probation	15-11-23
Capt. P. H. Rawson, M.C., Do	25-11-24
Mr. T. I. Scanlan, Sanitary Inspector	2- 3-24
Mrs. Lily de Souza, Asiatic Nurse	9- 6-24

Deaths :—

Mr. Mohamed Azim, Sanitary Inspector	8- 1-24
Mr. P. K. Sheth, Sub-Assistant Surgeon	25- 8-24

(4). LEAVE.—The following were on leave during the period stated opposite their names :—

	From	*To*
Dr. J. H. Reford, Principal Medical Officer	15- 6-24	21-12-24
Dr. G. R. H. Chell, Deputy P. M. O.	26- 6-24	End of year
Dr. C. H. Marshall, Surgeon-in-charge, European Hospital, Kampala	15- 6-24	do
Dr. J. E. Hailstone, Senior Medical Officer	1- 1-24	16- 8-24
Major R. J. A. Macmillan, D.S.O., T.D., Senior Medical Officer	1- 1-24	12- 5-24
Dr. W. L. Webb, Senior Medical Officer	10-11-24	End of year
Dr. S. M. Vassallo, Medical Officer	1-12-24	do
Dr. J. H. Neill, Do	1- 1-24	12- 3-24
Dr. E. A. C. Langton, Do	29- 1-24	31- 8-24
Dr. R. G. Griffin, Do	26- 5-24	End of year
Dr. S. W. T. Lee, Do	6- 8-24	do
Capt. P. H. Rawson, M.C., Do	18- 8-24	24-11-24
Dr. J. C. Caldwell, Temporary Medical Officer	30- 3-24	27-10-24
Capt. J. E. Brooks, Do	19- 3-24	7- 7-24
Dr. W. P. Kelly, Do	29- 1-24	28- 5-24
Dr. A. C. Rendle, Do	1- 1-24	1- 5-24
Dr. H. N. Pelly, Do	1- 1-24	24- 3-24
Dr. J. M. Collyns, Chief Sanitation Officer	1- 1-24	24- 1-24
Dr. H. R. Neilson, Sanitation Officer	19- 2-24	11-10-24
Dr. M. Martin, Assistant Bacteriologist	1- 1-24	7- 9-24
Miss D. M. Ivers, Nursing Sister	1- 1-24	16- 3-24
Miss C. M. Beville, Do	1- 1-24	24- 1-24
Miss E. M. Stringer, Do	19- 3-24	26-11-24
Miss M. J. Mackertich, R.R.C., Nursing Sister	29- 1-24	14- 4-24
Miss F. E. Warner, Nursing Sister	15- 6-24	13- 9-24
Miss H. C. Potter, Do	14- 7-24	10-11-24
Mr. J. Stewart, Laboratory Assistant	19- 3-24	11-10-24
Mr. C. Chorley, Pharmacist	26- 5-24	21-12-24
Mr. E. S. Smout, Superintendent of Lunatic Asylum and Native Hospital, Hoima	1- 1-24	12- 5-24
Mr. H. T. Bott, Office Superintendent	15- 6-24	End of year
Mr. F. G. Caldwell, Clerk, P.M.O.'s Office	1- 1-24	6- 7-24
Mr. R. J. Wilkinson, Supervisor of Native Inspectors	15- 4-24	5-12-24
Rai Sahib Achhru Ram, Assistant Surgeon	20- 5-24	20-11-24
Mr. A. D. Karkhanis, Senior Sub-Assistant Surgeon	21-11-24	31-12-24
Mr. Ram Chand, Sub-Assistant Surgeon	23-10-24	End of year
Mr. Mangal Sain, Do	9-10-24	do
Mr. K. J. Raja, Do	31- 7-24	do
Mr. S. R. Mahindra, Do	18-12-24	do
Mr. P. K. K. Menon, Do	25- 9-24	do
Mr. Balmukand Gopal, Do	20- 5-24	20-11-24
Mr. Karam Dad, Do	1- 1-24	15- 2-24
Mr. C. P. Thakar, Do	15- 7-24	6-11-24
Mr. S. R. S. Pillai, Compounder	6- 6-24	13- 8-24
Mr. M. N. de Souza, Clerk	9- 5-24	24-10-24
Mr. J. C. de Souza, Clerk	28- 8-24	End of year
Mr. M. P. D. de Souza, Assistant Storekeeper	1- 1-24	8- 6-24
Mr. C. Moniz, Clerk	4-11-24	End of year

(B) Financial.

ACTUAL EXPENDITURE FOR THE YEAR.

			£ Shs. Cts.
PERSONAL EMOLUMENTS :—			
Administrative Staff, Specialists, Medical Officers, Laboratory Sub-Staff and Sub-Staff for Suppression of Sleeping Sickness, Venereal and Epidemic Diseases, Nursing Staff, Pharmacist, Indian Medical Assistants, Native Attendants and Miscellaneous Allowances ...			58,796 15 36
OTHER CHARGES :—			
Medical, Surgical and Dental Stores			12,495 9 92
Renewals of Furniture and Equipment of Hospitals			1,997 14 64
Upkeep of European and Asiatic Hospitals			1,348 3 48
Upkeep of Native Hospitals			5,660 12 45
Sleeping Sickness Clearings and Upkeep of Camps			277 11 31
Sanitation Division			2,946 12 86
Laboratories Division			609 18 42
Miscellaneous Services (including Travelling and Motor Bicycle Allowances, Passages, Internal Transport, Upkeep of Motor Ambulances and Asylum, etc.)			13,690 12 54
TOTAL OTHER CHARGES ...	£39,026 15 62		
			£97,823 10 98
SPECIAL EXPENDITURE :—			
Stores for Anti-Venereal Disease Purposes			4,237 10 64
Equipment of Hospitals			2,442 12 53
Ambulances			1,457 14 92
TOTAL SPECIAL EXPENDITURE	£8,137 18 09		
GRAND TOTAL ...			£105,961 9 07

REVENUE.

The revenue collected through the Medical Department during the year amounted to £3,449.

SECTION II.

PUBLIC HEALTH.

(A) Vital Statistics.

The populations, births and deaths for the five Kingdoms—Buganda, Busoga, Bunyoro, Ankole and Toro—are shown in Tables I—VII.

The total deaths numbered 31,792 this year as against 32,681 in 1923, a decrease of 889—the death rate being 21·58 per 1,000 as against 22·15 per 1,000 last year.

The total births numbered 39,407 and exceeded the total deaths by 7,615, the birth rate being 26·75 per 1,000 as compared with 24·86 in 1923.

The total number of still-births was 5,643 as against 4,818 in 1923, an increase of 825, which occurred in the Kingdoms of Toro and Ankole.

	1924	1923
Still-births % of total births and still-births ...	12·52	11·61

Bunyoro is the one Kingdom where the death rate (25·89) exceeds the birth rate (15·77).

In the Buganda Kingdom the birth rate (19·02) exceeds the death rate (18·97) an improvement on previous years. It is noteworthy that this is the first occasion on record on which the birth rate has exceeded the death rate in the Buganda Kingdom. The reduction in the still-birth rate for this Kingdom is still more striking, there being 992 still-births this year as against 1,120 last year.

The infantile mortality is approximately 179·4.

This improvement in the Vital Statistics for Buganda is due in the main to the great expansion in medical work which has taken place within the last few years, to the splendid work accomplished in the maternity centres recently established by the Missions and helped by grants-in-aid from Government, and lastly to the absence of any serious epidemics.

As will be seen from Table II, the death rate is by far the lowest of that of any of the other four Kingdoms.

Table I.—Table of Deaths for the Five Districts of Buganda, Busoga, Bunyoro, Ankole and Toro for the year 1924.

CAUSE OF DEATH.

County.	1 Influenza.	2 C. S. M.	3 Fever.	4 Sleeping Sickness.	5 Plague.	6 Small-pox.	7 Measles.	8 Syphilis.	9 Gonorrhœa.	10 Dysentery.	11 Diarrhœa.	12 Leprosy.	13 Cancer.	14 Tuberculosis.	15 Muhinyo or Bilhimho (Mediterranean Fever)	16 Dropsy.	17 Chest Complaints.	18 Fits.	19 Paralysis	20 Abscess.	21 Wounds and Injuries.	22 Snake Bite	23 Child-Birth.	24 Other Causes.	25 Total Deaths.	26 Still-Births.
Buganda	886	9	3,317	1	109	...	33	599	805	58	114	119	276	346	110	116	2,377	121	1,116	68	17	59	204	4,017	14,877	992
Busoga	...	...	327	...	327	3	36	592	248	147	509	99	37	26	226	154	1,027	44	364	90	4	15	244	1,937	6,456	540
Bunyoro	145	...	98	...	...	...	...	78	75	51	167	10	50	61	45	26	648	30	77	16	9	9	26	859	2,480	770
Ankole	441	4	1,895	1	...	...	14	678	13	53	84	12	192	501	173	15	50	34	90	3	5	5	60	902	5,225	1,218
Toro	453	12	134	3	..	4	36	275	104	75	12	32	82	125	127	116	151	16	55	16	11	29	61	825	2,754	2,123
Totals ...	1,925	25	5,771	5	436	7	119	2,222	1,245	384	886	272	637	1,059	681	427	4,253	245	1,702	193	46	117	595	8,540	31,792	5,643

Table II.—Native Populations—Births, Deaths and Rates per 1,000 for Provinces or Districts for which Returns made, and Percentage of Still-Births to Total Births and Still-Births.

	BUGANDA.		BUSOGA.		BUNYORO.		ANKOLE.		TORO.		TOTALS.	
Population*	783,482		223,682		95,787		254,212		116,505		1,473,668	
	Births (living)	Deaths.	Births (living)	Deaths.	Births (living)	Deaths.	Births (living)	Deaths.	Births (living)	Deaths.	Births (living)	Deaths.
	14,914	14,877	9,751	6,456	1,510	2,480	7,554	5,225	5,678	2,754	39,407	31,792
Rates per 1,000	19·02	18·97	43·60	28·87	15·77	25·89	29·71	20·55	48·73	23·63	26·75	21·58
Still-births per cent of total Births and Still-births	992=6·23		540=5·24		770=33·77		1,218=13·87		2,123=27·20		5,643=12·52	

* Figures taken from Blue Book, 1923.

Table III.

Showing the Number of Births, Deaths and Still-Births in the Same Five Districts for the Last Seven Years.

BIRTHS (LIVING)

Year.	Buganda.	Busoga.	Bunyoro.	Ankole.	Toro.
1918	10,287	10,782	1,649	6,615	3,729
1919	9,512	6,918	1,284	5,518	3,731
1920	12,265	9,005	1,597	6,529	3,167
1921	13,050	9,829	1,602	7,095	3,872
1922	12,481	8,792	1,539	7,382	4,322
1923	14,479	9,892	1,626	6,816	3,863
1924	14,914	9,751	1,510	7,554	5,678
Totals ...	86,988	64,969	10,807	47,509	28,362

DEATHS.

1918	14,160	9,229	4,500	5,839	2,072
1919	15,221	10,053	3,345	7,388	3,907
1920	14,469	6,980	2,609	6,033	2,260
1921	13,761	11,312	2,599	6,206	1,976
1922	13,939	5,839	2,430	5,879	2,450
1923	15,103	7,698	2,482	5,205	2,193
1924	14,877	6,456	2,480	5,225	2,754
Totals ...	101,530	57,567	20,445	41,775	17,612

STILL-BIRTHS.

1918	1,082	669	893	820	1,510
1919	1,009	319	638	750	1,767
1920	1,127	484	953	773	1,478
1921	1,169	487	993	780	1,504
1922	1,102	483	967	775	1,739
1923	1,120	545	907	748	1,498
1924	992	540	770	1,218	2,123
Totals ...	7,601	3,527	6,121	5,864	11,619

Table IV.

Showing Increase or Decrease of Births Over Deaths During the Last Seven Years.

Year.	Buganda.	Busoga.	Bunyoro.	Ankole.	Toro.	Total Increase.	Total Decrease.
1918	− 3,873	+ 1,553	—2,851	+ 776	+ 1,657	—	2,738
1919	—5,709	—3,135	—2,061	—1,870	— 176	—	12,951
1920	—2,204	+ 2,025	—1,012	— 496	— 907	212	—
1921	— 711	—1,483	— 997	+ 889	+ 1,896	—	406
1922	—1,458	+ 2,953	— 891	+ 1,503	+ 1,872	3,979	—
1923	— 624	+ 2,194	— 856	+ 1,611	+ 1,670	3,995	—
1924	+ 37	+ 3,295	— 970	+ 2,329	+ 2,924	7,615	—
Totals:—							
Increase ...	—	7,402	—	5,734	10,750	—	
Decrease	14,542	—	9,638	—	—	294	

Table V.

Showing the Number of Births and Rates per 1,000 of the Populations in the same Five Districts for the last Seven Years.

Years.	Buganda		Busoga		Bunyoro		Ankole		Toro		Totals	
	Births (living)	Rates per 1000	Births (living)	Rates per 1000	Births (living)	Rates per 1000	Births (living)	Rates per 1000	Births (living)	Rates per 1000	Births (living)	Rates per 1000
1918	10,287	12·79	10,782	42 17	1,649	14·50	6,615	24·74	3,729	28·77	33,062	21·05
1919	9,512	12·02	6,918	27·93	1,284	13·85	5,548	20·69	3,731	29·58	26,963	17·69
1920	12,265	15·50	9,005	36·36	1,597	17·23	6,529	24·48	3,167	25·11	32,563	21·36
1921	13,050	16·77	9,829	44·15	1,602	16·21	7,095	28·24	3,872	32·95	35,448	24·14
1922	12,481	16·03	8,792	39·49	1,539	15·57	7,382	29·38	4,322	36·78	34,516	23·51
1923	14,479	18·34	9,892	45·06	1,626	18·81	6,816	26·98	3,863	32·82	36,676	24·86
1924	14.914	19·02	9,751	43·60	1,510	15·77	7,554	29·71	5,678	48·73	39,407	26·75

Table VI.

Showing Deaths and Rates per 1,000 of the Populations in the same Five Districts for the last Seven Years.

Years.	Buganda		Busoga		Bunyoro		Ankole		Toro		Totals	
	Total Deaths	Rates per 1000	Total Deaths	Rates per 1000	Total Deaths	Rates per 1000	Total Deaths	Rates per 1000	Total Deaths	Rates per 1000	Total Deaths	Rates per 1000
1918	14,160	17·61	9,229	36·10	4,500	39·57	5,839	21·84	2,072	15·98	35,800	22·80
1919	15,221	19·22	10,053	40·59	3,345	36·09	7,388	27·71	3,907	30·98	39,914	26·19
1920	14,469	18·28	6,980	28·18	2,609	28·15	6,033	22·62	2,260	17·92	32,351	21·22
1921	13,761	17·68	11,312	50·81	2,599	26·31	6,206	24·70	1,976	16·81	35,854	24·42
1922	13,939	17·91	5,839	26·23	2,430	24·60	5,879	23·40	2,450	20·85	30,537	20·80
1923	15,103	19·13	7,698	35·06	2,482	25·67	5,205	20·60	2,193	18·63	32,681	22·15
1924	14,877	18·97	6,456	28·87	2,480	25·89	5,225	20·55	2,754	23·63	31,792	21·58

Table VII.

Showing the Number of Still-Births and Still-Births per cent of Births in the same Five Districts for the Last Seven Years.

Years.	Buganda		Busoga		Bunyoro		Ankole		Toro		Totals	
	No. of Still-Births	%	No. of Still-Births	%	No. of Still-Births	%	No. of Still-Births	%	No. of Still-Births	%	No. of Still-Births	%
1918	1,082	9·52	669	5·84	893	35·12	820	11·02	1,510	28·81	4,974	13·07
1919	1,009	9·59	319	4·40	638	33·19	750	11·96	1,767	32·12	4,483	14·25
1920	1,127	8·23	484	5·10	953	37·37	773	10·58	1,478	31·81	4,815	12·88
1921	1,169	8·22	487	4·72	993	3·82	780	9·90	1,504	27·97	4,933	12·21
1922	1,102	8·11	483	5·20	. 967	38·58	775	9·50	1,739	28·69	5,066	12·79
1923	1,120	7·18	545	5·22	907	35·80	748	9·88	1,498	27·94	4,818	11·61
1924	992	6·23	540	5·24	770	33·77	1,218	13·87	2,123	27·20	5,643	12·52

(B) General Remarks.

The total number of new cases treated at Government Hospitals, Dispensaries Sub-dispensaries and Labour Camps was 257,677 with 742 deaths, as against 184,601 with 747 deaths the previous year. The re-attendances totalled 1,069,465.

In 1920 the total number of new cases treated was 62,405, in 1924 over four times that number were treated. No further comment is necessary to emphasise the great progress and expansion of medical work which has taken place in this Protectorate during the past four years.

Influenza was epidemic in all districts and native returns show 1,925 deaths rom this disease. 12,402 cases were treated in Government Hospitals and Dispensaries with 8 deaths.

Plague, Small-pox and Cerebro-spinal Meningitis.—No serious epidemics occurred and the reduction in the number of cases due to these diseases is maintained. The total deaths for each for the past three years are given below :—

Year.		Plague.		Small-pox.		C.S.M.
1922	..	1,305	...	12	...	471
1923	...	914	..	10	...	87
1924	...	801	...	1	...	106

COMMUNICABLE DISEASES.

(1) Mosquito or Insect-Borne.

Malaria.—12,905 cases with 25 deaths are recorded as against 11,394 cases with 37 deaths in 1923.

Classification.

	Cases.	*Deaths.*
Tertian	1,447 ...	7
Mixed infection (B. and S.T.) ..	316 ...	—
Quartan	15 ...	2
Aestivo-autumnal	7,708 ...	14
Chronic	386	2
Unclassified	3,033	—

The increase in the number of cases of malaria and in fact the increase in all diseases is in the main due to the great expansion in the medical service and not to any increase in the incidence.

Blackwater Fever.—70 cases with 23 deaths as against 71 cases with 17 deaths last year. (*See* special report, Appendix I.)

Relapsing Fever.—852 cases with 12 deaths received treatment as against 283 cases with 7 deaths in 1923.

The distribution was as follows:—

Buganda.	*Eastern Province.*	*Northern Province.*	*Western Province.*
184 ...	1 ...	137 ..	530

The greatest number of cases is reported from the Western Province, there is also a great increase in the number of cases in Buganda and the Northern Province. This is due to the improved facilities for the more accurate diagnosis of this disease provided by the expansion of the medical service and the opening of sub-dispensaries in these Provinces, and also to the increased movement of natives to and from the Northern and Western Provinces as a result of the importation of labour. No reports have been received to the effect that this disease is other than tick-borne in this Protectorate.

Trypanosomiasis.—87 cases are recorded with 6 deaths; 1 case in Buganda, 34 cases in the Eastern Province, 45 cases in the Northern Province, 7 cases in the Western Province. (*See* special report by the Senior Medical Officer i/c Sleeping Sickness, Appendix No. V.)

Pyrexia of Uncertain Origin.—3,829 cases with 6 deaths.

Mediterranean Fever.—Twelve cases with nil deaths are reported from the following Provinces:—

Buganda	3
Western Province	9

(2) Infectious or Epidemic Diseases.

Diphtheria—One case with one death occurred at Mbale.

Beri-Beri.—Seven cases with nil deaths are reported, three from Hoima, three from Lira and one from Soroti.

Cerebro-Spinal Meningitis.—Returns from all sources show 148 cases with 106 deaths as against 207 cases with 87 deaths the previous year. (*See* report by the Chief Sanitation Officer in Section III.)

Dysentery.—1,178 cases with 45 deaths were treated in Government Hospitals and Dispensaries as against 528 cases with 21 deaths in 1923:—

Amoebic	392
Bacillary	603
Unclassified	183

In addition native returns record 384 deaths as against 570 the previous year.

Enteric Fever.—Eleven cases are reported with three deaths. (*See* special report, Appendix No II.)

Erysipelas.—48 cases with nil deaths were treated. Last year there were four cases with one death.

Gonorrhoea.—4,871 cases with 14 deaths. Native returns record 1,245 deaths from this disease, of which 805 occurred in Buganda.

Influenza.—12,402 cases with eight deaths were treated :—

633 cases in Buganda.
10,135 cases in the Eastern Province.
1,487 cases in the Western Province.
147 cases in the Northern Province.

In addition the Native returns record 1,925 deaths as against 1,553 deaths last year.

Leprosy.—551 cases with four deaths were treated at Leper Camps, Hospitals and Dispensaries :—

Nodular	....	....	....	....	285
Anaesthetic	....	....	....	....	262
Unclassified	....	....	....	....	4

At Barr Leper Camp in Lango 151 cases were treated, and of these 90 were treated with Moogrol for periods varying from six to twelve months, the results being tabulated below. The treatment consisted of a weekly injection of 1·0 c.c. of Moogrol.

Type of Leprosy.	Total cases.	Cases showing improvement.	Cases showing no change.	Cases showing progressive disease.
Nodular ...	25	4	19	2
Anaesthetic ...	65	20	39	6
TOTALS ...	90	24	58	8

Of the 24 cases classified as showing improvement 15 were discharged as apparently cured. Eight of these cases were traced at the end of the year, when the following progress was noted :—

No signs of disease	....	....	....	....	6
Disease active	....	....	....	....	2

Further observation of the quiescent cases is required before a cure can be claimed, nevertheless the treatment with Moogrol seems hopeful in that in six early cases the disease has been checked for periods varying from three to thirteen months.

A second camp has been built in Lango at Aduku, and this will be opened early in 1925.

Measles.—172 cases with nil deaths are recorded from all sources.

Plague.—Returns from all sources show 887 cases with 801 deaths as against 938 cases with 914 deaths last year.

31,836 persons were inoculated.
12,982,990 rats were destroyed.

The Chief Sanitation Officer renders a full and interesting report on this disease in Section III.

Pneumonia.—551 cases with 80 deaths are recorded against 319 cases with 81 deaths in 1923.

Small-pox.—Two cases with nil deaths were treated at Masindi. Returns from all sources show seven cases with one death.

Vaccination.—78,896 people were vaccinated. (*See* report by the Chief Sanitation Officer in Section III).

Syphilis.—34,051 cases with 84 deaths were treated at all Hospitals and Dispensaries, including Mulago. Native returns show 2,222 deaths as compared with 2,340 in 1923.

Yaws.—7,377 cases with eight deaths were treated as against 3,376 cases with six deaths last year.

The campaign against yaws was carried on in the Mbale District of the Eastern Province and in the West Nile District, where 5,634 cases were treated as against 2,427 in 1923, and the excellent results reported in last year's Annual Report were borne out and maintained. This treatment is carried out by a trained native staff who carry an outfit so devised as to contain all the necessary apparatus and easily carried on a bicycle.

Tuberculosis.—102 cases with 15 deaths were diagnosed and treated.

Anthrax.—An outbreak of this disease occurred in a native village near Masaka where several goats died and their flesh was eaten by some of the villagers. Five cases with three deaths were reported.

Helminthic Diseases.—

Cestodes ..	...	262 cases no deaths
Trematodes ...	...	45 cases with 14 deaths
Nematodes	....	1,201 cases (Ascaris 451, Dracunculus 546, Ankylostomes 113 with 12 deaths).

(C) European Officials.

The number of cases treated during the year was 869 with three deaths as compared with 791 with two deaths the preceding year. The causes of death were:— Pneunonia 1, Gunshot wounds 1, Sarcoma (invalided and died on arrival in England) 1. The principal causes of sickness were:—

Malaria	264		Influenza ...		55
Blackwater Fever ...	3		Debility ...		26
Dysentery	12		Liver Abscess ...		1
Relapsing Fever ...	1		Local Injuries ...		55
Diseases of the Respiratory System				64	
Diseases of the Digestive System				128	
Diseases of the Nervous System				21	

MEDICAL BOARDS.

Medical Boards were held on 14 officials, resulting in the following recommendations being made:—

(*a*) To be invalided out of the service				6
General Debility		1		
Neurasthenia		1		
Nervous breakdown		1		
Hemiplegia		1		
Sarcoma		1		
Arthritis		1		
(*b*) To proceed to England for X-ray examination and treatment				2
Gastritis		1		
Haematuria		1		
(*c*) To proceed on short leave to England				4
Malaria		2		
Debility		1		
Acute Asthenia		1		
(*d*) To be posted to a healthier station				2
Malaria		1		
Blackwater Fever		1		

LOCAL SICK LEAVE.

Sick leave for varying periods was recommended and sanctioned in the case of 18 officials. This leave is spent either in Uganda or Kenya Colony.

134 officials proceeded on leave during the course of the year and it was recommended that 31 of these should consult a Medical Adviser to the Colonial Office.

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES OF EUROPEAN OFFICIALS DURING THE LAST THREE YEARS.

	1922	*1923*	*1924*
Total number of officials resident	413 ..	383 ...	434
Average number resident	266 ...	313 ...	361
Total number on sick list	850 ...	766 ...	713
Total number of days on sick list	3,563 ..	2,962 ...	2,415
Average daily number on sick list	9·76 ...	8·1 ...	6·59
Percentage of sick to average number resident ..	3·66 ...	2·58 ...	1·82
Average number of days on sick list for each patient	4·19 ...	3·86 ...	3·38
Average sick time to each resident	13·39 ...	9·46 ...	6·68
Total number invalided	18 ...	8 ..	12
Percentage of invalidings to total residents ..	4·35 ...	2·08 ...	2·76
Total deaths	6 ...	2 ...	3
Percentage of deaths to total residents ...	1·45 ...	·52 ...	·69
Percentage of deaths to average number resident	2·25 ...	·63 ...	·83
Number of cases of sickness contracted away from station	41 ...	39 ..	No record

TABLE VIII.

TABLE SHOWING THE CAUSES OF INVALIDING AMONGST EUROPEAN OFFICIALS DURING THE PAST SIX YEARS.

DISEASES.	1924	1923	1922	1921	1920	1919	TOTALS.
Blackwater Fever	—	2	2	—	1	1	6
General Debility	2	—	—	—	1	4	7
Nervous and Mental Diseases	1	—	1	—	—	1	3
Neurasthenia	1	—	4	—	5	—	10
Alcoholic Neuritis	—	—	—	1	—	—	1
Amoebic Dysentery	—	—	—	—	—	1	1
Anaemia and Chronic Bronchitis	—	—	—	—	—	1	1
Cardiac Debility	—	—	—	—	—	1	1
Eczema	—	—	—	—	—	1	1
Malaria	2	—	—	—	1	2	5
Rheumatism	—	—	—	—	1	—	1
Villous Papilloma of Bladder	—	—	—	—	1	—	1
Henock's Purpura	—	—	1	—	—	—	1
Alcoholism	—	—	1	—	—	—	1
Chronic Parenchymato Nephritis	—	—	1	—	—	—	1
Nervous Breakdown	1	—	1	—	—	—	2
Malaria, Heart and Defective Eyesight	—	—	1	—	—	—	1
Cerebral Congestion	—	—	1	—	—	—	1
Asthma and General Debility	—	—	1	—	—	—	1
Chronic Malaria and Anaemia	—	—	1	—	—	—	1
Excitability and Dilated Heart	—	—	1	—	—	—	1
Hernia	—	—	1	—	—	—	1
Duodenal Ulcer	—	1	—	—	—	—	1
Injuries	—	1	—	—	—	—	1
Colitis	—	1	—	—	—	—	1
Debility	—	1	—	—	—	—	1
Gunshot Wound	—	1	—	—	—	—	1
Tuberculosis	—	1	1	—	1	—	3
Hemiplegia	1	—	—	—	—	—	1
Sarcoma of the Mediastinum	1	—	—	—	—	—	1
Haematuria	1	—	—	—	—	—	1
Arthritis	1	—	—	—	—	—	1
Gastritis	1	—	—	—	—	—	1
TOTALS	12	8	18	1	11	12	62

EUROPEAN NON-OFFICIALS.

The total number of cases treated at Government Hospitals and Dispensaries was 721 with 11 deaths. A great many others received treatment at Mission Hospitals and these are not recorded.

The causes of death were :—

Toxaemia	2	Local Injuries (wounded by lion)	1
Cerebral Embolism	1	Cerebral Malaria	1
Blackwater Fever	2	Haematimisis	1
Diabetes Mellitus	1	Phthisis	1
Suicide	1		

The principal causes of sickness were :—

Malaria	165	Debility	3
Local Injuries	35	Diseases of the Nervous System	12
Influenza	25	Diseases of the Respiratory System	42
Blackwater Fever	7	Diseases of the Digestive System	60
Dysentery	15		
Relapsing Fever	3		

...

(D) Asiatic Officials.

1,763 cases with six deaths are recorded as against 1,587 cases with two deaths last year.

The causes of death were :—

Blackwater Fever	5	Haemorrhage from Gastric Ulcer	1

The principal causes of sickness were :—

Malaria ...	691	Enteric Fever	2
Blackwater Fever ...	19	Relapsing Fever	2
Local Injuries ...	68	Diseases of the Digestive System	206
Ear, Nose and Throat	68	Diseases of the Respiratory System	184
Influenza ...	42	Diseases of the Nervous System	32
Dysentery ...	11		

MEDICAL BOARDS.

Ten Medical Boards were held on Asiatic Officials during the year, the following recommendations being made :—

(*a*)	To be invalided out of the service	....	....	5
	Chronic Nephritis ...	...	1	
	Physically unfit ...	...	1	
	Cancer of Lung ...	...	1	
	Pyorrhoea and Hepatitis ...	...	1	
	Malaria and Debility ...	...	1	
(*b*)	To proceed to India on Sick Leave	....	....	3
	Depression and Insomnia ...	...	1	
	Pyorrhoea ...	...	1	
	Mental condition ...	...	1	
(*c*)	To be transferred to a healthier station	....	....	1
	Blackwater Fever ...	...	1	
(*d*)	To return to duty ...	....	....	1
	Temporary Heart Lesion ...	...	1	

LOCAL SICK LEAVE.

Eight Asiatic Officials were granted sick leave for varying periods to be spent in Uganda or Kenya Colony.

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES OF ASIATIC OFFICIALS DURING THE LAST THREE YEARS.

	1922	*1923*	*1924*
Total number of Officials resident ...	302	.. 300	... 415
Average number resident ...	337	... 339	... 387
Total number on sick list ..	1,417	.. 1,447	... 1,763
Total number of days on sick list ...	5,416	... 5,299	... 3,408
Average daily number on sick list ...	14·84	... 14·47	... 9·31
Percentage of sick to average number resident ...	4·40	... 4·26	... 2·40
Average number of days on sick list for each patient	3·82	... 3·66	... 1·93
Average sick time to each resident ...	16·07	... 15·63	... 8·80
Total number invalided ...	12	... 6	... 8
Percentage of invalidings to total residents ..	3·97	... 2·00	... 1·92
Total deaths	4	... 2	... 6
Percentage of deaths to total residents ...	1·32	... ·66	... 1·44
Percentage to average number resident ...	1·18	... ·59	... 1·55
No. of cases of sickness contracted away from station	32	... (No record)	

Housing.

There is still an acute shortage of houses for European and Asiatic Officials with the result that bachelors are quartered together as far as possible.

The shortage is particularly marked in the larger stations, *e.g.*, Kampala, Entebbe and Jinja.

Special attention has been directed to the necessity of prompt repairs to the guttering and the gauze wire protection against mosquitoes. Many houses, especially in out-stations, are by no means mosquito-poof, owing (*a*) to the existing gauze wire being in bad condition, (*b*) to the houses being incompletely screened, or (*c*) to a combination of these two factors.

The present type of tank attached to Government houses is unsatisfactory as it forms a common breeding place for culex and stegomyia mosquitoes. Representations have been made to remedy the existing defects and a new inlet and man-hole cover is on trial.

Section IV.

Meteorology.

All available information under this head is embodied in the Blue Book.

The Lake level records at Entebbe for the year are as follows :—

	Highest.	*Lowest.*
January	10·24	10·15
February	10·26	10·17
March	10·30	10·18
April	10·45	10·22
May	10·62	10·47
June	10·60	10·44
July	10·43	10·28
August	10·27	10·23
September	10·21	10·13
October	10·16	10·11
November	10·15	10·10
December	10·12	10·08

Note.—The zero of the gauge is 3,686·53 feet above the mean sea level.

Section V.

Hospitals and Dispensaries.

ACCOMMODATION.

Buganda Kingdom.

Entebbe.—The medical store was enlarged to cope with the increase in the amount of stores which has now to be handled and to provide suitable accommodation for the pharmacist to work in.

A female ward was erected at the native hospital and a permanent isolation hospital was built.

A combined medical and veterinary laboratory was completed during the year and early occupation in 1925 is hoped for.

Kampala.—The European hospital was completed and the grounds round the hospital were laid out. The Asiatic hospital was completed and opened.

Mulago.—Nursing Sisters' quarters, a maternity ward, a cubicle ward, native latrines and water tanks were built and completed during the year.

The mortuary, main store and operating theatre were completed. A small sum of money was spent in laying out the ground round the wards and houses.

Bombo.—The new hospital was completed and opened.

Northern Province.

Hoima.—A new permanent ward and store were built and additions and alterations were made to existing buildings. Temporary male and female wards were built.

Masindi.—Alterations and additions were made to the existing buildings. Temporary male and female wards were erected.

Eastern Province.

Mbale.—A complete new administrative block was built and completed and also a permanent native ward.

A European cottage hospital was built and completed towards the end of the year.

Jinja.—A permanent ward for natives was built and alterations and additions were made to existing buildings.

The grounds round the Native and Asiatic hospitals were laid out and improved.

Lira.—An administrative block and permanent native ward were completed.

Soroti.—Work was started on a permanent native ward and an Asiatic ward but had to be abandoned owing to lack of labour. It is hoped to finish these buildings in 1925.

SUB-DISPENSARIES.

Nineteen were built, completed and opened during the year and these added to the 27 completed in 1923, give a total of 46 sub-dispensaries, staffed, equipped and doing excellent work.

They are located as follows:—

Buganda Kingdom	15	Northern Province	5
Eastern Province	15	Western Province	11

These are immensely popular with the native population and have proved to be a very successful means of tapping districts which heretofore have been practically out of medical reach beyond perhaps for a visit once a year or less frequently by a District Medical Officer on tour.

Applications have been received from administrative officers and from native chiefs for fifty more of these sub-dispensaries. Sites have been chosen, approved and plans have been drawn up and they will be established as funds, building material and trained staff become available.

The districts in most urgent need of medical attention will receive priorty.

LUNATIC ASYLUM.

The old gaol at Hoima is still being used as an asylum and must serve until a mental hospital can be built.

Additions and alterations were made to the building during the year which have improved matters to a certain extent by providing better sanitary conditions, more accommodation and better separation of the sexes.

Further additions and alterations will be necessary in 1925 and provision will be made for these in the Estimates.

Admissions, Deaths, etc., during the year.

	Criminal	*Simple*
Total inmates remaining on 31st December, 1923	11	24
Number admitted during the year	5	23
Number released	1	5
Number transferred to other institutions	1	1
Number died	3	12
Number remaining on 31st December, 1924	11	29

No epidemics occurred.

Causes of Death.

General paralysis of the Insane	1	Diabetes	1
Debility following acute mania	4	Syphilis III	1
Malnutrition and weakness ...	1	Heart Failure	2
Cerebral Haemorrhage	1	Dysentery	2
Helminthiasis	1	Nephritis	1

Health in Prisons.

His Majesty's Prisons, Kampala and Luzira.

Total number of prisoners	1,339	
Daily average number of prisoners	592	
Daily average on sick list	41	or 6·9%
Total number of deaths	23	

Causes of Deaths.

Pneumonia	8
Dysentery	8
Others	7

The most prevalent diseases were malaria, bronchitis, local injuries, syphilis, gonorrhœa and dysentery.

Twelve cases of a food deficiency disease occurred in the month of June, and on investigation it was discovered that the food ration was adequate but that at times difficulty had been experienced in obtaining fresh green food and this shortage led to the outbreak.

The disease was characterised by general oedaema, cardiac weakness, pyorrhoea with scorbutic hæmorrhage of the gums, and in two cases minute petechial hæmorrhages were noticed on the inner aspects of the thighs.

No deaths occurred, and those affected were able to return to duty within three weeks of reporting sick.

In October an epidemic of dysentery broke out, brought into the gaol by imported labour from the West Nile, and owing to a transference of prisoners which took place because of disciplinary reasons the infection was spread from Luzira prison to Kampala prison. Natives only were affected, and the disease did not spread to the Asiatic inmates.

Bacteriological examination revealed the presence of *Bac. Shiga* which had not hitherto been noticed in Uganda.

The infection appeared to be a mixed one, but whether *Flexner* or *Shiga* predominated could not be ascertained.

In the first few weeks of the epidemic treatment was the usual routine saline therapy, but this was discovered to be most unsatisfactory, and a method of treatment by exhibiting castor oil orally combined with a full diet was adopted later with much success.

The results in the cases in which accurate records could be obtained were as follows :—

Saline Group	...	...	...	45 cases treated.
Death rate	...	...	...	8·8%
Relapses	...	...	...	20·0%
Castor Oil Group	...	..	...	72 cases treated.
Death rate	...	...	...	2·77%
Relapses	...	...	...	11·11%

But in the saline group are included 15 cases which were first treated by saline and later by castor oil, and if these 15 be taken out of the saline group it leaves 30 cases treated by saline only and the death rate of this group would then be 13·3%.

The incidence of sick is high, but as pointed out in last year's Annual Report, the physical condition of the prisoner class of native is not good.

Maternity Training Schools and Maternity Child Welfare Centres.

Great progress has been made during the year, and this work is of such paramount importance that the following reports which the Superintendents of the Mission Training Schools have been kind enough to submit are appended in full. Government is again deeply indebted to Dr. and Mrs. Albert Cook and to Mother Kevin for their splendid services and unremitting zeal in carrying out their work.

Report of The Lady Coryndon Maternity Training School, Namirembe, 1924.

Superintendent :—Mrs. A. R. Cook, M.B.E.
Nursing Sister :—Miss R. Camplin.

The past year has been one of steady progress and consolidation. The statistics given below show a healthy increase in the numbers attending the country centres, nearly twice as many having been recorded as during the previous year. Mere figures do not of course show the romance of the work, the difficulties faced, and in many instances overcome, the loneliness of the midwives in distant stations, or the strain imposed by the need of vigilant inspection. No one could ask for more interesting work, or seek a more arduous post than that of the superintendent of this great Training School.

From the commencement of the work in January, 1919, over forty midwives have passed the Government examinations, and the great majority are still at work doing yeoman service to their country women and children. It must be remembered that every station becomes a potential centre of light and learning in the midst of a very ignorant population.

The difficulties have been immense, for it must be remembered that this is pioneer work. They fall into three main classes :—

(1) Those due to the apathy of the Native Government. The very small outlay required of money and labour for a work which so directly benefits them is simply not forthcoming. Here again one or two of the Saza Chiefs, such as the Sekibobo in Kyagwe, stand out in honourable contrast to the rest.

(2) The immense distances to be traversed make inspection of distant centres well-nigh impossible.

(3) Finance is a real difficulty for a mission hospital. Only two or three centres even approximate to self support, and Government assistance, though very welcome, is literally a grant-in-aid, and covers only a portion of the expenditure.

Twenty-two students have been in residence at the M.T.S. during the past year Of these six passed the Government examination in June, and five in December.

Extensive additions were made to the main building in 1924, including a special operating room, and an examination room for out-patients. The whole building was repainted, a system of draining introduced, and some structural alterations made. Towards the latter the Government made a generous grant which we gratefully acknowledge. A good deal of the work was done under the direction of the P.W.D. A temporary ward for septic cases, so often alas received at the hospital after ignorance has done its worst, was erected in the early part of the year, and has since been replaced by a permanent brick and corrugated iron building with cement floors. A much appreciated hostel for the friends of patients from a distance has also been put up. Over 600 confinements, many of them abnormal cases, took place in the wards attached to the training school, resulting not only in great saving of life, but also affording excellent clinical material for the training of the midwives.

A small preparatory school for the junior students greatly improved their general education.

Full courses of lectures have been given by members of the hospital staff throughout the year, and the interesting experiment of co-education was tried, the senior girls and senior medical students being taught together in hygiene, medicine and chemistry.

New centres have been opened during the year at Nakifuma in Kyagwe, Luwero in Bulemezi, Nabumalo on the slopes of Mount Elgon, Kikoma in the Mubende District, and Ngogwe in Kyagwe.

The efficiency of the centres largely depends on inspection and surprise visits. The standard of efficiency is steadily rising, and the sympathetic supervision of the girls is producing a real *esprit de corps* among them, and the desire to uphold the good name of their school. A Ford safari car has conveyed many tons of drugs and equipment to the various centres and during the year the inspector, Mrs. A. R. Cook, M.B.E., covered 5,000 miles in this way on her visits. The country centres at the present moment number 14, and three more are sanctioned for the immediate future. Until the central staff is reinforced, it is doubtful if more than this number can be efficiently worked.

STATISTICS.

Central Institution, Namirembe.

Number of students during 1924	22
Number who passed Government qualifying examination	13
Total number of in-patients	1,289
Deliveries	596
Living children discharged	463
Still-births	48
Miscarriages admitted	51
Maternal deaths	14
Forceps operations	57
Perforation and cranioclasm	2
Caesarian section	4
Total out-patient attendance, including child welfare cases	23,628

COUNTRY CENTRES.

Centre.	Confinement.	Child Welfare.	Antenatal Cases.	V. D.	Total Out-Patients.	Still-births.	Maternal Deaths.	Living Children discharged.
Mukono ...	200	1,009	6,691	1,445	9,145	6	0	196
Ndeje ...	189	772	7,517	919	9,208	14	2	177
Kako ...	134	413	2,469	170	3,052	2	0	132
Iganga	21	883	565	123	1,571	4	1	19
Bamusuta ...	7	103	606	127	836	0	0	7
Nakifuma ...	43	586	4,054	541	5,181	8	0	24
Kasaka ...	21	195	1,990	130	2,315	2	0	13
Mbarara ...	22	0	1,230	121	1,351	3	1	19
Kamuli ...	4	28	62	9	99	1	0	3
Ngogwe ...	45	675	3,882	253	4,810	6	4	40
Luwero ...	36	569	2,804	90	3,463	6	1	30
Nabumale ...	2	1,348	482	358	2,188	2	0	0
Kikoma ...	1	95	1,241	35	1,000	0	0	1
Mityana ...	9	35	154	22	211	3	2	4
TOTALS ...	734	6,678	33,418	4,334	44,430	57	11	665

A. R. COOK,

Secretary, M. T. S. Committee.

Report of Maternity Training School, 1924.

Superintendent:—REV. M. M. KEVIN, O.S.F., M.B.E.
Nursing Sister:—SR. M. MAGDALEN, O.S.F.

It is only this year that we have started child welfare, and there is a great work to be done here in this connection, but we are terribly handicapped for want of proper accommodation, and cannot see our way to erect the much-needed confinement and operating room, so we have had to carry on as best we could with our old buildings. We have had 151 confinements, so material has not been lacking for the training of the native midwives.

We have had 22 students in training during the year under review. Of these, four satisfied the Government examiners in June and two in November, one of whom has remained here and three have gone to new centres at Rubaga, Nagalama and Villa Maria. Our midwives have only been sent where they will be under the immediate supervision of White Sisters, so that periodical inspection of country centres by us has so far not been necessary.

STATISTICS.

Central Institution, Nsambya.—

Number of students during 1924	22
Number who passed Government qualifying examination	6
Total number of in-patients	332
Deliveries	151
Living children discharged	133
Still-births	18
Miscarriages admitted	20
Maternal deaths	3
Forceps operations	6
Caesarian section	1
No. of out-patients	2,500

Country Centres.—

	Confinements.	*Still-births.*	*Maternal deaths.*
Rubaga	... 11 ...	0 ...	0
Nagalama ...	... 32 ...	1 ...	2
Villa Maria ...	.. 21 ...	1 ...	0

M. M. KEVIN,

16TH APRIL, 1925. *Superintendent.*

At Mulago a maternity ward was opened and one day a week was set apart in the women's out-patient department for child welfare.

This institution has become very popular among native mothers and much good work is being done.

112 pregnant syphilitic mothers were treated; of these—

41 gave birth to live babies which were alive at the end of the year;
8 gave birth to live babies which died before the end of the year;
2 had still-born babies;
1 had a miscarriage;
1 failed to report;
59 were not due for confinement before the end of the year.

INFANTILE MORTALITY RETURNS FOR BUGANDA KINGDOM.

Population	Number Born	Died in 1st year	Birth Rate per 1,000 of Population	Infantile Mortality per 1,000 born
783,482	15,110	2,712	19·02	179·4

Buildings.

STATEMENT OF WORK CARRIED OUT DURING 1924.

	£
Entebbe.—	
Medical store extension	1,634
Civil hospital—female ward	297
Kampala.—	
European hospital, completion of	745
do lay-out of grounds	205
Conversion of native hospital buildings into Asiatic hospital	87
Mulago.—	
Nurses' quarters	2,438
Women's general, children's and maternity ward	1,385
Cubicle ward	1,093
Tanks	263
Native latrines	110
Main store building, completion of	45
Mortuary, completion of	51
Incinerators	28
Operating theatre, completion of	5
Lay-out of hospital grounds	121
Hoima.—	
Native hospital buildings	1,498
Addition and alterations to existing buildings	576
Masindi.—	
Dispensary	920
Native hospital buildings, completion of	59
Mbale.—	
Native hospital buildings	4,464
European cottage hospital	2,489
Soroti.—	
Native hospital buildings	1,018
Carried forward ...	£19,531

	£
Brought forward ...	19,531
Lira.—	
Dispensary, completion of	45
Native hospital buildings, completion of	357
Jinja.—	
Native hospital buildings, completion of	2,131
Masaka.—	
Native hospital buildings	254
Mubende.—	
Dispensary	57
Bombo.—	
Hospital buildings	312
TOTAL ...	£22,687
	£
Entebbe.—	
Combined Medical and Veterinary Laboratory	3,171
Kampala.—	
Lady Coryndon Maternity Training School, repairs ..., ...,	393
TOTAL	£3,564
Sub-dispensaries	£1,358

MINOR WORKS AND REPAIRS.

The sum of £280 10s. was expended on minor works and repairs at the following stations :—Entebbe, Kampala, Mulago, Jinja, Mbarara, Masindi, Hoima, Mbale.

TABLE VI.

TABLE SHOWING, BY STATIONS, THE NUMBER OF CASES WITH DEATHS, TREATED AS IN-PATIENTS AT GOVERNMENT HOSPITALS DURING THE YEAR.

Station.	1924					1923				
	Remaining 1923.	Yearly admissions.	Total Deaths	Total cases treated.	Remaining 1924.	Remaining 1922.	Yearly admissions.	Total Deaths.	Total cases treated.	Remaining 1923.
Arua	92	1,303	29	1,395	62	21	1,073	18	1,094	92
Bombo (Civil and Military)	40	391	6	431	23	28	349	17	377	40
Butiaba	1	133	—	134	5	3	35	4	38	1
Entebbe (Native) ...	21	466	23	487	19	15	434	12	449	21
do (European)										
*Fort Portal ...	—	133	—	133	12	1	17	—	18	—
Gulu	71	1,017	1	1,088	74	47	1,217	27	1,264	71
Hoima	43	432	42	475	26	2	164	11	166	43
Jinja (Native) ...	39	679	64	718	33	32	517	78	549	39
do (European)										
Kabale	29	351	18	380	28	11	344	15	355	29
Kakamari	—	54	—	54	4	—	—	—	—	—
Kampala (Asiatic) ...	6	546	16	552	9	2	171	—	173	6
do (European) ...										
Kitgum	5	131	—	136	9	8	118	5	126	5
Lira	89	596	15	685	19	45	618	17	663	89
Masaka	8	350	26	358	20	8	192	22	200	8
Masindi	10	455	—	465	22	11	148	13	159	10
Mbale	354	3,524	232	3,878	379	74	2,411	166	2,485	354
Mbarara	22	267	5	289	24	10	231	26	241	22
Moroto	—	136	6	136	—	—	—	—	—	—
Mubende	10	231	7	241	16	13	217	11	230	10
Mulago and Gaols ...	149	2,876	216	3,025	154	—	—	—	—	—
Namasagali	3	153	5	156	10	2	54	4	56	3
Soroti	24	2,507	31	2,531	111	16	534	13	550	24
TOTALS ...	1,016	16,731	742	17,747	1,059	349	8,844	459	9,193	867

*C. M. S. Hospital.

Table VII.

Return of Diseases (in and out-patients) for the year 1924.

Diseases.	Total Cases.	Deaths.
Infective Diseases:—		
Beri-Beri	7	...
Cerebro-Spinal Fever	6	4
Chicken-Pox	315	...
Dengue	37	...
Diphtheria	1	1
Dysentery—Amœbic	392	2
Bacillary	603	20
Unclassified	183	23
Enteric	11	3
Erysipelas	48	...
Gonorrhœa	4,871	14
Influenza	12,402	8
Leprosy (*a*) Nodular	285	1
(*b*) Anæsthetic	262	3
(*c*) Unclassified	4	...
Malaria (*a*) Benign Tertian	1,447	7
(*b*) Sub-Tertian	7,708	14
(*c*) Quartan	15	2
(*d*) Mixed Infection	316	...
(*e*) Chronic	386	2
(*f*) Clinical Malaria	3,033	...
Blackwater Fever	67	9
Measles	172	...
Mumps	330	...
Mediterranean Fever	12	...
Plague	39	12
Pneumonia	551	80
Rabies	6	1
Relapsing Fever	852	12
Rheumatic Fever	75	1
Septicæmia	3	1
Trypanosomiasis (Sleeping Sickness)	87	6
Small-Pox	2	...
Syphilis (*a*) Primary	2,074	1
(*b*) Secondary	7,588	1
(*c*) Tertiary	18,152	55
(*d*) Inherited	6,228	27
(Latent)	9	...
Tuberculosis	54	12
Whooping Cough	202	...
Yaws	7,377	8
Tetanus	6	4
P. U. O.	3,829	6
Others	98	1
Intoxications:—		
Alcoholism	6	...
Others	13	...
General Diseases:—		
Anæmia	156	1
Anæmia—Pernicious	7	...
Diabetes	5	1
Exophthalmic Goitre	2	...
Gout	2	...
Hodgkin's Disease	1	...
Myxœdema	2	...
Rickets	1	...
Scurvy	1	...
Debility	1,010	21
Others	168	9
Local Diseases:—		
Diseases of the Nervous System.		
Sub-Section 1.		
Neuritis	92	...
Meningitis	2	1
Encephalitis	4	...
Congestion of Brain	2	1
Others	178	1
Sub-Section 2.		
Apoplexy	3	1
Paralysis	43	1
Epilepsy	74	...
Neuralgia	1,698	...
Hysteria	30	...
Others	481	...
Carried forward	84,126	378

Diseases.	Total Cases.	Deaths.
Brought forward	84,126	378
Local Diseases—*continued*:—		
Diseases of the Nervous System—*continued.*		
Sub-Section 3.		
Mental Diseases—		
Idiocy	3	1
Mania	8	2
Melancholia	2	...
Dementia	6	2
Delusional Insanity	13	1
Neurasthenia	8	...
Others	12	1
Diseases of the Eye—		
Conjunctivitis	11,238	...
Keratitis	56	...
Ulceration of Cornea	221	...
Iritis	247	...
Optic Neuritis	1	...
Cataract	38	...
Others	529	1
Diseases of the Ear—		
Inflammation	2,483	..
Other Diseases	914	1
Diseases of the Nose—		
Rhinitis	487	...
Coryza	337	...
Others	73	...
Diseases of the Circulatory System—		
Pericarditis	1	...
Endocarditis	16	3
Valvular Mitral	46	11
Aortic	24	2
Tricuspid	4	2
Arterial Sclerosis	1	...
Aneurism	1	1
Others	121	9
Diseases of the Respiratory System—		
Laryngitis	78	...
Bronchitis	29,829	12
Broncho-pneumonia	208	52
Abscess of Lung	2	1
Gangrene of Lung	1	...
Emphysema	8	...
Pleurisy	95	1
Empyema	9	2
Asthma	111	1
Phthisis	48	3
Others	655	...
Diseases of the Digestive System—		
Stomatitis	1,623	...
Caries of teeth	1,624	...
Glossitis	26	...
Sore Throat	1,407	...
Inflammation of Tonsils	542	...
Gastritis	242	...
Ulceration of Stomach	7	..
Hæmatemesis	5	...
Dilatation of Stomach	3	...
Stricture of Stomach	13	1
Dyspepsia	3,049	...
Enteritis	55	5
Appendicitis	10	...
Colitis	57	...
Hernia	187	9
Diarrhœa	5,195	12
Constipation	9,462	...
Colic	3,246	1
Hæmorrhoids	58	...
Others	2	1
Pancreatitis	1	...
Hepatitis—Acute	24	...
Carried forward	158,892	516

TABLE VII—*continued.*

RETURN OF DEATHS (IN AND OUT-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	Total Cases.	Deaths.
Brought forward ..	158,892	516
LOCAL DISEASES—*continued.*		
Diseases of the Digestive System —*continued.*		
Abscess ...	21	...
Cirrhosis ...	6	3
Jaundice ...	69	1
Peritonitis ...	9	8
Ascites ...	48	8
Gingivitis ...	19	...
Others ...	240	14
Diseases of the Lymphatic System—		
Splenitis ...	94	...
Inflammation of Lymphatic Gland ...	775	...
Suppuration of Lymphatic Gland ...	155	...
Lymphangitis ...	45	...
Elephantiasis ...	30	1
Others ...	407	3
Diseases of the Urinary System—		
Acute Nephritis ...	39	13
Bright's Disease ...	11	1
Calculus ...	1	...
Renal Colic ...	10	...
Cystitis ...	57	...
Vesical Calculus ...	1	...
Suppression ...	2	...
Hæmaturia ...	4	...
Chyluria ...	1	...
Others ...	19	3
Diseases of the Generative System—		
Male Organs :—		
Urethritis ...	32	...
Gleet ...	17	..
Stricture ...	238	5
Prostatitis ...	4	...
Soft Chancre ...	360	...
Condyloma ...	35	...
Inflammation of Scrotum ...	2	...
Hydrocele ...	116	...
Orchitis ...	181	...
Epididymitis ...	10	
Abscess of Testicle ...	11	...
Others ...	17	2
Female Organs—		
Ovaritis ...	1	...
Ovarian Cyst ...	3	...
Endometritis ...	8	...
Displacement of Uterus ...	3	...
Vaginitis ...	18	...
Amenorrhoea ...	11	...
Dysmenorrhoea ...	50	...
Menorrhagia ...	68	...
Leucorrhoea ...	50	...
Abortion ...	51	...
Delayed Labour ...	23	7
Postpartem Hæmorrhage ...	6	1
Retained Placenta	22	1
Premature Birth ...	9	1
Puerperal Septicæmia ...	6	1
Mastitis ...	60	...
Abscess of Breast ...	29	...
Carried forward ...	162,397	589

Diseases.	Total Cases.	Deaths.
Brought forward ...	162,397	589
LOCAL DISEASES—*continued.*		
Diseases of the Generative System —*continued.*		
Female Organs—*continued.*		
Parturition ...	73	2
Others ...	185	4
Diseases of Organs of Locomotion—		
Osteitis ...	45	...
Arthritis ...	180	...
Spondylitis ...	4	...
Bursitis ...	30	...
Myalgia ..	13,902	1
Synovitis ...	186	...
Goundou ...	1	...
Others ...	177	1
Diseases of Connective Tissue—		
Cellulitis ...	1,643	5
Abscess ...	1,845	16
Elephantiasis ...	79	...
Others ...	217	7
Diseases of the Skin—		
Urticaria ...	142	...
Eczema ...	294	...
Boil ...	934	...
Carbuncle ...	15	...
Herpes ...	51	...
Psoriasis ...	47	...
Oriental Sore ...	70	...
Tinea ...	429	...
Scabies ...	17,711	1
Acne ...	65	...
Prickly Heat ...	12	...
Ulcers ...	21,203	19
Others ...	581	7
Injuries—		
General ...	276	11
Local ...	21,480	49
Tumours ...	137	1
Malformations ...	13	1
Poisons ...	39	...
Snake-bite ...	60	1
Protozoa ...	5	...
Bilharzia ...	45	14
Cestoda—		
Tænia Solium ...	100	...
Tænia Saginata ...	162	...
Nematoda—		
Ascaris ...	451	...
Tricocephalus Dispar ...	2	...
Dracunculus ...	546	...
Filariasis ...	77	...
Ankylostomiasis ...	113	12
Oxyuris ...	2	...
Others ...	10	...
Insecta—		
Myiasis ...	4	...
Jiggers ...	433	...
Others ...	53	1
TOTAL ...	246,476	742
TOTAL SURGICAL OPERATIONS ...	2,520	...

In addition to the above the following cases were treated :—

	Cases.
Labour Camps	8,118
N.Y.D. and Observation	3,083
	11,201

TABLE A.

The following Table shows, by Stations, the total number of cases treated, with deaths, at Government Hospitals and Dispensaries during the years 1922, 1923 and 1924:—

Station	1924		1923		1922	
	Total Cases	Total Deaths	Total Cases	Total Deaths	Total Cases	Total Deaths
Arua	4,207	29	3,394	18	2,438	22
Bombo (Civil)	7,315	5	5,433	20	5,126	13
„ (Military)	2,428	1	2,303	2	1,958	1
Butiaba	2,194	—	1,829	7	2,379	4
Entebbe (European)	7,807	23	40	1	59	5
„ (Civil)			6,852	18	5,743	27
Fort Portal	7,254	—	5,745	1	7,557	4
Gulu	6,863	1	5,869	27	4,385	31
Hoima	7,323	42	3,939	38	2,388	17
Jinja (European)	9,204	64	37	3	22	—
„ (Civil)			7,813	118	6,545	49
Kabale	4,755	18	3,753	16	5,260	23
Kakamari (Military Outpost) ...	1,431	—	1,788	3	—	—
Kampala (European)	11,978	16	168	1	156	1
„ (Asiatic)			18,939	60	14,613	86
„ (Civil)						
„ (Police)	2,750	—	1,415	4	1,497	1
„ (Gaol)	4,409	10	3,688	13	3,467	10
Kitgum	4,143	—	3,711	6	6,085	11
Lira	3,665	15	4,182	19	3,767	57
Masaka	8,918	26	5,401	24	4,616	16
Masindi	5,788	—	3,554	14	3,889	19
Mbale	12,634	232	9,368	186	3,895	134
Mbarara	6,560	5	6,031	28	4,237	14
Moroto	1,701	6	765	1	*	*
Mubende	4,073	7	3,989	13	4,077	13
Namasagali	3,976	5	2,062	5	1,288	4
Soroti	22,493	31	7,454	12	1,861	26
Sub-Dispensaries	76,345	—	48,610	27	*	*
Mulago and Sub-Centres ...	16,262	206	11,382	62	*	*
TOTALS ...	246,476	742	179,514	747	97,308	588

*Not included.

Table B.

Return Showing the Medical Staff and the Principal Members of the Subordinates Staff.

Name and Qualifications.	Rank of Appointment.	Where stationed on 31st December, 1924.	Remarks.
J. H. Reford, B.A., M.D., B.A.O. (Hnrs.) (R.U.I.) L.M. (Dub.) D.T.M. (Liverp.) D.P.H. (Dist) (Camb.)	P. M. O. ...	Entebbe	
Major G. J. Keane, D.S.O., R.A.M.C., R. of O., M.D., D.P.H., D.T.M. (Liverp.)	Deputy P. M. O. (Native Services)	do	
G. H. R. Chell, M.R.C.S., L.R.C.P., D.P.H. ...	Deputy P. M. O. ...	On leave	
C. H. Marshall, M.R.C.S., L.R.C.P., M.B., B.S. (London)	Surgeon i/c European Hospital, Kampala	do	
Capt. R. A. L. van Someren, M.D., D.P.H. (Edin.) M.B.O.V.	Senior Medical Officer ...	Jinja	
G.D.H. Carpenter, M.B.E., B.A., M.D. (Oxf.) M.R.C.S., L.R.C.P., F.E.S., F.L.S., F.Z.S.	Do ...	Entebbe	Senior Medical Officer i/c Sleeping Sickness Measures.
J. E. Hailstone, M.A. (Camb.) M.R.C.S., L.R.C.P., D.T.M. (London)	Do ...	Arua	
Major R. J. A. Macmillan, D.S.O., T.D., M.B., CH.B. (Edin.) D.T.M. (Liverpool)	Do ...	Entebbe	Acting Deputy P. M. O.
W. L. Webb, M.R.C.S., L.R.C.P., M.B., B.S. (Lond.) D.P.H., R.C.P.S.	Do ...	On leave	
W. L. Peacock, M.B., CH.B. (Glas.) ...	Do ...	Kampala	Acting Surgeon i/c E. H. Kampala
S. M. Vassallo, M.D. (Malta) D.T.M.& H. (London) (Duncan Medal)	Medical Officer ...	On leave	
J. H. Neill, M.B., CH.B. (Edin)	Do ...	Soroti	
E. A. C. Langton, M.R.C.S., L.R.C.P. ...	Do ...	Mbarara	
N. Bligh Peacock, B.SC., M.B., CH.B. (Glas) ...	Do ...	Masaka	
R. G. Griffin, L.M. & L.R.C.P. & L.R.C.S. (Irel) D.P.H. (Dub.)	Do ...	On leave	
S. W. T. Lee, M.B., B.CH., B.A.O.	Do ...	do	
A. T. L. Kingdon, M.R.C.S., L.R.C.P. (London) ...	Do ...	Lira	
J. C. St. George Earl, B.A., M.B., B.CH. ...	Do ...	Masindi	
D. G. Garnett, M.A., M.R.C.S., L.R.C.P., M.B., B.CH. ...	Do ...	Mulago	
J. P. Mitchell, O.B.E., M.D.	Do ...	do	Acting S.M.O. Mulago
A. J. Boase, M.R.C.S., L.R.C.P.	Do ...	do	
Capt. F. P. Freeman M.C., L.R.C.P., & S.I., L.A.H.	Do ...	Mbale	
A. C. Freeth, M.B., U.Durh.	Do ...	Entebbe	
F. V. Small, M.B., CH.B., B.A.O.	Do ...	Hoima	
R. S. McElroy, M.B., CH.B., D.P.H. ...	Do ...	Mulago	
T. H. Nolan, M.B., B.CH., B.A.O.	Do ...	Mbulamuti	
L. D. Dennard, M.B., CH.B., B.A.O. ...	Do ...	Mulago	
C. P. Burges, M.B., CH.B.	Do ...	do	
J. D. Reynolds, M.B., CH.B., B.A.O. ...	Do ...	do	
N. C. Macleod, M.B., CH.B.	Do ...	do	
J. C. Caldwell, M.B., C.M. (Edin.)	Do ...	Jinja	
A. C. S. Smith, M.C., M.R.C.S., (Eng.), L.R.C.P. (Lond.), M.B., B.C. (Cantab.)	Medical Officer part time	Kabale	
A. T. Schofield, B.A. (Camb.) M.R.C.S., L.R.C.P. ...	Do ...	Fort Portal	
J. M. Collyns, M.B., D.P.H. (Lond.), M.R.C.S., L.R.C.P.	Chief Sanitation Officer ...	Entebbe	
H. R. Neilson, M.B., CH.B., D.P.H. (Aberdeen) ...	Sanitation Officer ...	Kampala	
H. L. Duke, O.B.E., B.A., M.D., B.C., D.T.M. & H. (Camb.) SC.D. (Cantab.)	Bacteriologist ...	Entebbe	
M. Martin (Miss) M.D., (Edin.) D.P.H., D.T.M. & H. (London)	Assistant Bacteriologist	do	
G. S. Bateman, L.D.S.R.C.S. (England) ...	Dental Surgeon ...	Kampala	
C. Chorley, M.P.S.	Pharmacist ...	Entebbe	
J. Stewart	Laboratory Assistant	do	
E. C. Haddon	Do ...	do	
A. E. Baker	Do ...	Mulago	
Miss. E. M. Pratt, A.R.R.C.	Matron ...	Kampala	
,, D. M. Ivers	Nursing Sister ...	Mbale	
,, N. M. Adams	Do ...	Entebbe	
,, C. M. Beville	Do ...	Kampala	
,, E. M. Stringer	Do ...	Mulago	
Mrs. M. S. Wilson	Do ...	On leave	
Miss. A. Miles	Do ...	Jinja	
,, W. A. Shambrook	Do ...	Kampala	
,, G. M. Hawthorne	Do ...	do	
,, R. H. Bagot	Do ...	Hoima	
,, S. B. Oxley	Do ...	Kampala	
,, E. R. Brittain	Do ...	Mulago	
,, N. S. Boyd	Do ...	Entebbe	
,, I. Baillie	Do ...	Kampala	
,, A. B. Jack	Do ...	Mulago	
,, E. A. McGill	Do ...	Kampala	
,, N. B. Freeman	Do ...	do	
,, B. A. Buck	Do ...	Mulago	
H. Flint	Confidential Clerk	Entebbe	
H. T. Bott	Office Superintendant	On leave	
F. G. Caldwell	Clerk ...	Entebbe	Acting O. S.
J. P. L. Waters	Medical Storekeeper	do	
H. G. Smith	Supdt. of N. Hosp.	Mulago	
E. S. Smout	Do Lunatic Asylum and Native Hospital	Hoima	
C. W. G. Tiffin	Sanitary Inspector	Kampala	
W. V. Kendall	Do ...	Jinja	
R. J. Wilkinson	Supervisor of Native Inspectors	Busoga District	
Chas. O'Connor	Sleeping Sickness Inspector	Mbale District	

Table C.

Return Showing the Asiatic Medical and Clerical Staff.

Name	Rank.	Where Stationed on 31.12.24.	REMARKS.
Achhru Ram, Rai Sahib ...	Assistant Surgeon ...	Kampala	
Karkhanis, A. D. ...	Senior Sub-Assistant Surgeon ...	Jinja	
Hukam Singh, I.O.M. ...	Sub-Assistant Surgeon	Soroti	Seconded from I. M. D.
Ram Chand ...	Do ...	On leave	
Mangal Sain ...	Do ...	Do	
Andrews, C. P. ...	Do ...	Entebbe	
Ahmed Din ...	Do ...	Mbale	
Raja, K. J. ...	Do ...	On leave	
Mahindra, S. R. ...	Do ...	Do	
Rao, A. V. S. ...	Do ...	Fort Portal	
Faquir Chand ...	Do ...	Namasagali	
Karam Dad ...	Do ...	Kabale	
Menon, P. K. K. ...	Do ...	On leave	Seconded from I. M. D.
Thacker, C. P. ...	Do ...	Arua	
Pillai, G. K. ...	Do ...	Mbale	
Nur Mohomed ...	Do ...	Lira	
Ghulam Haidr ...	Do ...	Jinja	
Das, E. C. ...	Do ...	Gulu	
Gopal, Balmukand ...	Do ...	Entebbe	
Pradhan, K. A. ...	Do ...	Mubende	
Pandit, V. B. ...	Do ...	Kampala	
Barkit Singh ...	Do ...	Masaka	
Achhar Singh ...	Do ...	Bombo	
Arangady, S. V. ...	Do ...	Kitgum	
Fernandes, E. F X. ...	Compounder ...	Mbarara	
Mela Ram ...	Do ...	Jinja	
Dharm Chand ...	Do ..	Kampala	
Ahmed Din Ahmedi ...	Do ...	Kakamari	
Dhirat Ram ...	Do ...	Mulago	
Syed Mohomed Hussein ...	Do ...	Moroto	
D'Souza, M. N. ...	1st Grade Clerk ...	Entebbe	
Sandhu S. S. ...	2nd Grade Clerk ...	Do	
Moniz, C. ..	Do ...	On leave	
Da'Lima, U. B. ...	Do ...	Kampala	
Gunewardene, D. J. ...	Do ...	Entebbe	
Senaratne, B. S. ...	3rd Grade Clerk ...	Do	
D'Souza, J. C. ...	Do ...	On leave	
D'Souza M. P. D. ...	Asiatic Asst. Storekeeper	Entebbe	
Martyris, S. X ...	3rd Grade Clerk ...	Kampala	
D'Mello, F. H. ...	Do ...	Mulago, Kampala	
Sant Singh ...	Do ...	Kampala	
Desai, M. I. ...	4th Grade Clerk ...	Masindi	
Fernandes, J. A. ...	Do ...	Entebbe	
Gomes, S. M. ...	Do ...	Do	

Table D.

Showing present Staff and Hospital Accommodation for each District, 1924. (Medical and Sanitary Branches Combined).

BUGANDA KINGDOM.

Area in Square Miles 22,370. Total Population 789,124.

	Entebbe.	Masaka.	Mengo.	Mulago.	Mubende.
European Staff	1 Medical Officer 2 Nursing Sisters	1 Medical Officer	1 Surgeon i/c E.H. 1 Sanitation Officer 1 Matron 4 N. Sisters 1 Sanitary Inspector	1 S. M. O. 4 Medical Officers 3 N. Sisters 1 Superintendent 1 Lab. Assistant	Nil
Asiatic Staff	1 S.A.S.	1 S.A.S. ...	1 Assistant Surgeon 3 S.A.S's. 1 Compounder 2 Clerks 1 Nurse 1 Cook	1 Compounder 1 Clerk	1 S.A.S.
Native Staff:—					
A. Medical and Surgical ...	9	14	12	130	5
B. Sanitation ...	3	4	1	...	1
C. Sleeping Sickness ...	...	...	..	...	...
Number of Beds:—					
A. Medical and Surgical.					
European	6	...	15	...	...
Asiatic	3 } 37	*... } 45	14 } 69	... } 209	... } 18
Native	28	45	40	†209	18
B. Isolation.					
European	...	...	...	...	...
Asiatic	... } 12	... } ...	... } 5	... } ...	... } 6
Native	12	...	5	...	6

Mengo includes the Stations Kampala and Bombo, and the Townships of Port Bell, Mbale.

*Permanent ...	23	†Permanent ...	185	† Mulago and Branch Dispensaries.
Temporary ...	22	Temporary ...	24	
	45		209	

Table D (a).

EASTERN PROVINCE.

Area in Square Miles—36,292. Total Population—1,178,323.

	Busoga.	Bukedi.	Teso.	Lango.	Labor and Karamoja.
European Staff	1 S.M.O. 1 Medical Officer 1 N. Sister	1 Medical Offier 1 Nursing Sister	1 Medical Officer	1 Medical Officer	—
Asiatic Staff	1 Senior S.A.S 1 S.A.S. 1 Compounder 1 Clerk	2 S.A.S's.	1 S.A.S.	1 S.A.S.	1 S.A.S. (Moroto) 1 Compounder (Kakamari).
Native Staff:—					
A. Medical and Surgical ...	25	57	11	5	5 (3 Moroto,
B. Sanitation	5	12	7	6	(2 Kakamari)
C. Sleeping Sickness ...	...	1	...	...	...
Number of Beds.					
A. Medical and Surgical ...					
European	4 } 80	... } 126	... } 38	... } 90	... } (6 Kakamari)
Asiatic	4	7	4	...	...
Native	*72	119	34	†90	6
B. Isolation.					
European	...				
Asiatic	... } 16	...	...	...	...
Native	16				

Busoga includes the Stations Jinja and Namasagali and the Townships of Iganga and Kaliro.

*Permanent	36	†Permanent	20
Temporary	36	Temporary	70
	72		90

TABLE D (B).

WESTERN PROVINCE.

Area in Square Miles 13,766. Total Population 577,128.

	Ankole.	Toro.	Kigezi.
European Staff ...	1 Medical Officer	1 Medical Officer (half time)	1 Medical Officer (half time)
Asiatic Staff ...	1 Compounder	1 S.A.S.	1 S.A.S.
Native Staff :—			
A. Medical and Surgical ...	12	9	6
B. Sanitation ...	1	1	2
C. Sleeping Sickness ...	—	4	2
Number of Beds :—			
A. Medical and Surgical.			
European ...	...	...	...
Asiatic ...	... } 22	...	... } 22
Native ...	22	...	22
B. Isolation.			
European ...	...	...	...
Asiatic ...	...	...	... } 20
Native ...	...	...	20

TABLE D (C).

NORTHERN PROVINCE.

Area in Square Miles 23,734. Total Population 437,737.

	Bunyoro.	Gulu.	Chua.	West Nile.
European Staff ...	2 Medical Officers 1 Superintendent 1 Nursing Sister	...	...	1 S.M.O.
Asiatic Staff ...	1 Clerk	1 S.A.S.	1 S.A.S.	1 S.A.S.
Native Staff :—				
A. Medical and Surgical ...	42	8	5	5
B. Sanitation ...	6	...	1	4
C. Sleeping Sickness ...	...	...	2	2
Number of Beds :—				
A. Medical and Surgical				
European ...	...	...	...	...
Asiatic ...	... } 88	... } 25	...	... } 15
Native ...	88	25	9 huts—room for 18 patients.	15
B. Isolation				
European ...	...	...	...	...
Asiatic ...	... } ...	... } 38	...	...
Native ...	...	38	...	...

Bunyoro includes 3 Government Stations and 1 sub-centre :—Masindi, Hoima, Butiaba and Busingiro.

SECTION VI.

Legislation.

No Legislation was enacted during the year.

REGISTRATION OF MEDICAL PRACTITIONERS AND DENTISTS.

The Ordinance governing Registration came into force on July 1st, 1913, since when and up to December 31st, 1924, the following have been placed on the register:—

Registered Medical Practitioners	87
Dentist	1
Licensed Medical Practitioners	55

The numbers actually on the register on December 31st, 1924, were as follows:—

Registered Medical Practitioners	47
Dentist	1
Licensed Medical Practitioners	25

Of the above 47 registered Medical Practitioners, seven belong to the Church Missionary Society and two to the Mill Hill Mission; two are in private practice and the remainder in Government Service.

The Board appointed for the purpose of the Ordinance consists of:—

The Principal Medical Officer as Chairman, with three Medical Practitioners, including one non-Government Medical Practitioner, as members.

Scientific Papers Published During 1924 by Members of the Medical Staff.

DR. H. L. DUKE, O.B.E.

"Polymorphic Trypanosomes of the T. brucei group recovered from the Mwanza Sleeping Sickness Area."

(Annals of Tropical Medicine and Parasitology, XVIII. No 4, Liverpool, 30 December, 1924).

DR. G. D. H. CARPENTER, M.B.E.

"Report on Investigations into the Epidemiology of Sleeping Sickness in Central Kavirondo."

(Bulletin of Entomological Research Vol. XV. Part 2. November, 1924.)

Recommendations, Etc.

In last year's Annnal Report a policy was advocated of extending medical treatment, through the agency of sub-dispensaries, to the native masses who have hitherto been inaccessible to medical aid.

This has been carried out as far as funds would permit, nineteen additional sub-dispensaries having been established during the year. A corresponding increase in the strength of the native medical staff and a corresponding increase in the issue of medical stores has had to be made.

The excellent work done by these sub-dispensaries and their popularity with the various native tribes abundantly justify the policy of their extension and the increased demands they make upon the resources of the Medical Department.

The fact that during the year under review approximately a quarter of a million of new cases have been treated indicates that a real advance has been made towards bringing medical aid within reach of all natives throughout the Protectorate, numbering over three million. Such a result would clearly be impossible through district hospitals alone, separated from each other as they frequently are by distances of one hundred miles.

In 1925 it is hoped to carry on the further expansion of these sub-dispensaries and with this object increased resources in funds, in medical stores, and in native and supervisory staff have been asked for.

The first district European cottage hospital was established at Mbale in 1924 and has proved exceptionally successful. Provision has been asked for the establishment of two more such cottage hospitals at Soroti and Masindi in 1925.

Extended treatment of leprosy both at voluntary segregation camps and at all sub-dispensaries in affected areas will be undertaken in 1925.

It is hoped next year to undertake the beginnings of a campaign against Ankylostomiasis through treatment and improved sanitation. Systematic treatment with carbon tetrachloride at all sub-dispensaries is under consideration.

Recommendations for future work in Sleeping Sickness prevention, Sanitation and Laboratories will be found under their respective sections or reports.

Section III.

SANITATION.

General Review of Work Done.

ADMINISTRATIVE.

Dr. J. M. Collyns, Chief Sanitation Officer, arrived at Mombasa from leave on the 25th January, and Dr. H. R. Neilson, Sanitation Officer, proceeded on leave on the 19th February, returning on the 12th October.

During the latter's absence Dr. Collyns was transferred to Kampala to take over the duties of Sanitation Officer, Kampala, in addition to those of Chief Sanitation Officer, there being no Medical Officer of Health available to relieve Dr. Neilson.

As a direct result of this assumption of the extra duties of Sanitation Officer, Kampala, by the Chief Sanitation Officer, and of the latter's consequent continuous absence from Headquarters during the greater part of the year the duties of the latter post suffered considerably.

Dr. Collyns returned to Entebbe on the resumption of the duties of Sanitation Officer, Kampala, by Dr. Neilson in November.

One Medical Officer of Health has been provided for in the Estimates for 1925. It is intended that he shall be normally posted to the Eastern Province with headquarters probably at Mbale as being more central, and that he shall spend most of his time on tour investigating outbreaks of infectious or other disease, supervising and controlling the work of the native inspectors and vaccinators, inspecting and reporting on the sanitary condition of townships, trading centres, etc., enquiring into and helping to improve the system of returns of births and deaths made by native chiefs, improving the sanitation of native villages, etc. He will, however, be available to take over the duties of the Sanitation Officer, Kampala, when either the Chief Sanitation Officer, or the Sanitation Officer is on leave. It is hoped that in the future the Chief Sanitation Officer will thus be enabled to spend all his time on the duties attached to his post.

From January 1st all Sanitary Inspectors came under the Medical Department.

Mr. W. V. Kendall, Sanitary Inspector, arrived at Mombasa on first appointment on the 12th October and was posted to Jinja.

Mr. R. J. Wilkinson, European Supervisor of Native Inspectors and Vaccinators, proceeded on leave on the 15th April and returned on the 6th December, when he was again posted to the Busoga District.

A third European Sanitary Inspector for Mbale, Eastern Province, which is now expanding very rapidly as a result of the intended railway extension to that township, has been sanctioned in the 1925 Estimates.

TOURS, Etc.

The following stations were inspected during the year:—Entebbe, Jinja, Tororo, Mbale, Bubulu, Soroti, Namasagali, Bombo, Masaka and Mubende, and during the course of the tours in which these inspections occurred many of the smaller townships and a number of ginneries were also inspected, and special reports on the sanitary condition of the latter submitted to the Factories Board, which involved a considerable amount of work.

Special trips were also made to the following places:—

(1) *Kamuli, Busoga*, in connection with the final choice of a new site for this important township, which site was fixed and has since been surveyed and laid out.

(2) *Mityana*, in connection with the site for a new Government station proposed for the purpose of better administration of part of the present Mubende District.

(3) *Bulemezi County, Mengo District, Buganda*, in connection with a plague outbreak which started at or near a ginnery at Bamunanika.

(4) *Budama District, Eastern Province*, in connection with a plague outbreak.

LEGISLATION, ETC.

The revision of the Township Rules, 1916, was completed and the revised Rules were published during the year under the title of the Township Rules, 1924.

The question of the adoption of minimum standard types of shops for erection by Asiatics and alien natives on permanent occupation leases in the smaller townships was very fully considered and plans for them, drawn up by the Director of Public Works, were approved.

No new areas or places were declared infected during the year, but Palango Port, Lango, was closed to traffic for a short time on account of plague in the vicinity.

FACTORIES BOARD.

Many important questions in connection with the general sanitary condition of factories were raised by the Chief Sanitation Officer as a result of the inspection of some sixty ginneries during the course of the year, and after considerable discussion and some revision the recommendations formulated by him were accepted and incorporated in a Circular Memo issued by the Board to all factory owners.

CENTRAL TOWN PLANNING BOARD.

Only one meeting of this Board was held during the year in connection with the choice of a site for the new native hospital at Mbale, Eastern Province.

PREVENTIVE MEASURES.

INSECT-BORNE DISEASES.

(A) *Malaria.*

ANTI-MALARIAL MEASURES.

(*a*) MAJOR.

The Kampala Swamp.—A full report on the work done during the year is given in Dr. Neilson's report on the Mengo District.

A scheme was drawn up for the drainage and control of the swamp area, under which the control of all works and of all labour employed on such works was to be vested in the Township Authority so as to eliminate as far as possible the want of supervision and the divided control which have rendered nugatory much of the work done in the past and have led to a lack of continuity in the earlier schemes put forward for the reclamation of the area.

It was pointed out that more supervision was urgently required and that unless a whole-time European overseer was appointed to supervise the various labour gangs which would be required under the new scheme, the work would suffer and the scheme could only be proceeded with very slowly.

As long ago as 1919 a rough estimate of the cost of the work required to be done was drawn up and the late Dr. Baker, then Chief Sanitation Officer, in submitting this estimate stated that "it does not include the salary of a supervising engineer or of an European (overseer), the services of both of whom would be necessary were it decided to complete the work rapidly, say in two years."

The new scheme has been accepted in principle and from January 1st, 1925, all moneys allocated to swamp drainage in Kampala are included under Municipal Expenditure.

A Municipal engineer and a works overseer for Kampala Municipality have been sanctioned in the Estimates for 1925, and it is hoped that when they arrive the work of reclamation will proceed more rapidly than it has in the past, but I still consider that the services of a whole-time European overseer are required for this most important work. The new works overseer will be required to spend most of his time on roads and road drainage within the Township, and will have very little to spare for the swamp.

(*b*) MINOR.

The usual minor measures have been continued at the various stations during the year, and an attempt has been made to render the work of the gangs more useful by engaging as headmen intelligent natives trained to look for and collect mosquito larvae.

At Mbale, in the Eastern Province, a great deal of most useful work has been done during the last few years by the draining, cleaning and grading of existing streams and swampy areas by the removal of banana plantations in the township and by general clearing. The improvement in the general appearance and sanitation of this

station since my last visit in 1919 is most marked and reflects great credit on the work of Drs. Vassallo and Griffin, the former of whom has worked unceasingly to lessen the well-known unhealthy and insanitary conditions of this station.

Tanks.—A good deal of attention has been directed to these during the year as will be seen from the Mengo District report under anti-malarial work. The present type of cement Government tank has been proved to be a favourite breeding place of culex and stegomyia, and representations have been and are being made to get certain details altered so as to make them mosquito-proof.

(B) *Relapsing Fever.*

The increase in the number of cases treated at hospitals and dispensaries from 283 in 1923 to 852 in 1924 is due in some measure to the extension of sub-dispensaries in the Western Province which account for 157 cases, but is undoubtedly mostly caused by the largely increased movement of natives from the Northern and Western Provinces as a result of the importation of labour from these areas. The Western Province (with Masaka) accounts for 581 cases and the Northern Province (with Mubende) for 188. No cases were reported from the Gulu and Chua Districts of this Province. No evidence has been received that the disease is other than tick-borne.

Special attention has been and is being laid on the necessity of all permanent or semi-permanent camps, *e.g.*, police lines, labour camps, etc., being built with a view to preventing as far as possible their being tick-infested, and the replacement of the old type of police and prison warders' mud and wattle huts by permanent quarters is being insisted upon in the townships in tick-infested areas.

(C) *Ankylostomiasis.*

The present position of this disease in Uganda is very fully commented upon by the Bacteriologist in his 1924 Report. I am in complete agreement with the views expressed therein and am of opinion that the ordinary native villager living at home is not normally adversely affected by harbouring the parasite but that if any abnormal circumstances arise to upset the usual equilibrium, which has become established between host and parasite, then adverse effects on the host may become evident. I would cite in this connection two occasions on which the parasites seemed to me to have gained the ascendancy over their hosts, *e.g.*, (1) during the Sleeping Sickness epidemic at Busu Camp in Busoga in 1908 when famine was also present in the district, and food to which the native of the district was unaccustomed, had to be imported both for the use of those in the camp and outside; (2) during an epidemic of diarrhoea in the Mbale Jail in 1913-14, in which the factors at work were overcrowding, famine in the district, insufficient clothing, general insanitary conditions, and to a certain extent unsuitable diet.

Until fuller *data* have been collected regarding the effects of this disease on the Uganda native living under normal conditions in his village, which can only be done gradually as sub-dispensaries are extended into the various districts, I do not consider it advisable or practicable to attempt "mass treatment" and although attention is being given to the question of increased conservancy in native villages, particularly in the Eastern Province, improvement in this direction must necessarily be very slow, depending as it does mainly on the education of the native, which again can only take place as our staff increases and Medical Officers have more time for touring their districts.

EPIDEMIC DISEASES.

Plague.

This disease has been confined to the Mengo District of the Buganda Province and to the Busoga and Lango Districts and the Bukedi area of the Eastern Province.

The total cases reported were 887 with 801 deaths compared with 938 cases with 194 deaths in 1923.

The figures for the last three years are given in the following table:—

	Buganda Province		Eastern Province	
	Cases	Deaths	Cases	Deaths
1922	178	153	1,184	1,152
1923	111	96	827	818
1924	114	103	773	698

and the figures for 1924 are amplified in the table given below.

	Townships.		Districts.		Totals.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
BUGANDA KINGDOM						
MENGO DISTRICT:—						
Bulemezi County	...		39	39		
Bombo	2	1	...	...		
Kyagwe County	...	...	41	36		
Kyadondo County ...	...	...	30	26		
Kampala	2	1	...	...	114	103
EASTERN PROVINCE						
BUSOGA DISTRICT:—						
Bugabula County	...	...	46	46		
Kigulu County	...	...	165	165		
Luuka County	...	...	7	7		
Jinja	23	23	...	..		
Bulamogi County	...	...	89	89		
Bugweri County	...	...	7	7		
Bukoli County	...	...	4	4	341	341
BUKEDI AREA:—						
1. BUGWERI DISTRICT:—						
Mbale County ...	...	...	5	5		
Bukidea County ...	...	...	4	3		
2. BUGISHU DISTRICT:—						
South Bugishu ...	...	...	11	9		
Central Bugishu ...	...	...	1	1		
3. BUDAMA DISTRICT:—						
Bunyuli County ...	...	...	88	75		
Budama County ...	...	...	205	165		
Tororo	3	3	...	...		
Bugwe County ...	...	...	39	36		
Mjanji Port ...	1	1	...	...	357	298
LANGO DISTRICT:—						
Eruti County	...	...	26	18		
Lira	4	3	...	...		
Maruzi County	...	...	21	18		
Kwania County	...	...	11	10		
Dokolo County	...	...	13	10	75	59
TOTALS ...	35	32	852	769	887	801

Of the 114 cases from Buganda Kingdom four were Asiatics, of whom two recovered under treatment. Particulars of these cases are given in the Mengo District report.

The figures for Busoga District show a satisfactory decline, 341 cases being reported as against 628 in 1923.

23 of these cases, of which four were Asiatics, occurred in the Township and Port of Jinja, which was practically never free from the disease, although it never assumed epidemic form.

Owing to the absence of Mr. R. J. Wilkinson, who was on leave from April to the end of the year, the returns from this district for the months April—December are taken without check from native sources and the numbers are probabily exaggerated. An outbreak occurred in Bulamogi County near Kaliro during July which, with most valuable assistance from Father Utz of the R.C. Mission near by, was checked without assuming serious proportions. The disease broke out again in this area during October and spread to some extent during this and the following month into the neighbouring counties of Kigulu and Bugweri, but it never reached epidemic proportions, and Dr. van Someren, who visited the scene, reported that the number of cases was exaggerated and that the position was not really serious.

The Bukedi Area, under which title I include the three districts of Budama, Bugweri and Bugishu, returned 357 cases as against 161 in 1923, Budama County in the Budama District accounting for 205 of these. Apart from the Budama District this area has been remarkably free from plague during the year, the few cases reported from South Bugishu occurring in villages adjoining the Budama District. An outbreak occurred in the temporary jail in Tororo township in April, which necessitated the removal of the prisoners to another site and the destruction of the old jail huts by burning. Attention was drawn to the necessity of erecting a permanent prison building as soon as possible on account of Tororo being in the centre of a plague-endemic area, and of its being impossible to prevent the infection of temporary huts or to disinfect them satisfactorily. The disease remained almost quiescent until June when there was a

sudden rise from five cases in May to 68 in this month increasing to 77 in July and gradually falling to 23 in December. This rise corresponds very remarkably with that which occurred in 1923. It is very interesting to note that the districts affected by plague in this area correspond almost exactly with the distribution of the black rat as described by the late Dr. C. J. Baker in the Annual Report for 1921, and there is no evidence to prove that the black rat has spread to any appreciable extent in this area during the last few years.

Lango District accounts for 75 cases with 59 deaths as compared with 38 cases and 36 deaths in 1923. The disease first appeared at Aputi on Lake Kwania in June and very shortly afterwards two cases occurred in Lira township, and early in July the prison at Lira became infected, a prisoner contracting the disease and recovering. No connection was traced between the cases which occurred at Aputi and those at Lira, but it is quite likely that the infection was conveyed to the latter place by human agency from Aputi. From Lira the disease spread North and West, the highest point of the wave being again reached in July with 31 cases, falling to nil by the end of the year.

A rather serious outbreak occurred near Palango Port on the Victoria Nile in July in consequence of which the Port was closed for a short time in order to take effective measures to prevent the spread of the disease by canoes or steamer to other parts of the Protectorate. This action was successful and the port only remained closed to traffic for about a fortnight.

In September another case occurred in the prison at Lira and as a result of strong representations being made on the urgency of the matter provision for a permanent prison was made in the 1925 Estimates, but this has since been cut out. The old prison is a danger to the township, situated as it is in the centre of the inhabited area, and should be replaced by a permanent jail without further delay.

As far as is known *Rattus coucha Ugandae* is still the plague-carrying rat in Lango.

It is satisfactory to mention that, with the exception of Jinja, where plague was present throughout the year, and Mjanji, where one human case occurred in December, all other Uganda ports on Lake Victoria remained free from plague throughout the year.

PREVENTIVE MEASURES.

These have been dealt with fully in previous reports, and are more particularly referred to in the Mengo District report.

The method of evacuation of infected villages (complete or partial) inaugurated in 1921 was again successfully carried out in the Budama District on a small scale when the epidemic was at its worst.

Rat destruction.—The following are the figures returned for the year :—

RAT DESTRUCTION.

BUGANDA KINGDOM :—		
Mengo District	18,988	
Entebbe „	6,757	
Masaka „	4,296	
Mubende „	85,141	115,182
EASTERN PROVINCE :—		
Busoga District	775,615	
Bukedi Area	10,449,438	
Teso District	656,343	
Lango „	982,972	12,864,368
NORTHERN PROVINCE :—		
Bunyoro District	3,440	3,440
GRAND TOTAL ..		12,982,990

The figure for last year was :—11,757,375.

Of 3,101 rats examined for plague at Kampala two were found infected with *B. Pestis.*

Prophylactic Inoculations.—31,836 were given compared with 27,055 in 1923. These were distributed as follows:—

BUGANDA KINGDOM:—		
Mengo District	16,977	16,977
EASTERN PROVINCE:—		
Busoga District	3,435	
Lango District	2,233	
Bukedi Area	9,191	14,859
TOTAL ...		31,836

Some details of 23 persons who had been inoculated and who subsequently contracted the disease are given in the Mengo District report. As a result of representations made to the Bacteriologist the strength of the vaccine was increased early in the year from 3,000 to 5,000 million per c.c. as it was found that the latter dose was generally speaking well-borne and gave only a mild re-action, and it was desired to raise the protective power of the vaccine, if possible, whilst at the same time giving only a single inoculation, more than one inoculation of the same individual being usually impracticable and often impossible.

The results are disappointing and the little evidence available points to the inefficacy of the present vaccine and to the necessity of continued experimental work in the laboratory in order to produce a vaccine of proved prophylactic value.

Smallpox.

Only seven cases with one death were reported from the whole Protectorate for the year as compared to 97 cases with 10 deaths in 1923 and 104 cases with 12 deaths in 1922.

Of the seven cases four occurred in the Mengo District of the Buganda Kingdom, two in the Bunyoro District of the Northern Province, and one in the Bukedi area of the Eastern Province, this last case proving fatal.

VACCINATIONS.

78,896 were returned during the year as compared with 140,283 in 1923.

Of the 67,761 results recorded, 6,460 were reported as failures, leaving a total of 61,301 successful or modified, equivalent to a percentage of 90·46 successes (percentage in 1923—91·7).

These vaccinations were distributed as below amongst the different districts and provinces:—

	Vaccinations.	
BUGANDA KINGDOM:—		
Mengo District	16,948	
Masaka „	11,584	
Mubende „	1,548	
Entebbe „	44	30,124
NORTHERN PROVINCE:—		
West Nile District	193	
Bunyoro „	623	816
WESTERN PROVINCE:—		
Toro District	132	
Ankole „	214	
Kigezi „	15	361
EASTERN PROVINCE:—		
Busoga District	28	
Bukedi Area	5,902	
Teso District	11,300	
Lango „	30,365	47,595
TOTAL ...		78,896

Cerebro-Spinal Meningitis.

148 cases with 106 deaths were reported, distributed as follows:—

	Townships		Districts		Totals	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
BUGANDA KINGDOM:—						
Mengo District	—	—	2	2	3	3
Masaka do	—	—	—	—		
Masaka	1	1	—	—		
EASTERN PROVINCE:—						
Bukedi Area	—	—	11	9	11	9
Teso District	—	—	58	58	60	59
Soroti	2	1	—	—		
Busoga District	—	—	—	—	1	1
Jinja	1	1	—	—		
NORTHERN PROVINCE:—						
West Nile District	—	—	—	—	1	1
Arua	1	1	—	—		
WESTERN PROVINCE:—						
Ankole District	—	—	—	—	72	33
Mbarara	1	—	—	—		
Kigezi District	—	—	71	33		
TOTALS	6	4	142	102	148	106

With the exception of an outbreak in the Kuikisi area of the Kigezi District in October, which lasted into November and accounted for 71 cases with 33 deaths, this disease never assumed anything approaching epidemic form, but was present throughout the year in the Teso District of the Eastern Province which returned a few cases every month and accounted for 60 cases in all.

Enteric Fever (*see* special report).

Influenza.

This disease has been very prevalent throughout the Protectorate, but the type has been a mild one. 1,925 deaths are reported from native returns as due to this disease. 1,553 was the figure last year.

Dysentery.

With the exception of an outbreak of the bacillary type in the Jails at Kampala and Luzira which is reported on fully elsewhere (*see* Section V. page 18 Health in Prisons) this disease calls for no special comment here, the increase in the number of cases reported from the different stations being accounted for by a more efficient staff leading to better diagnosis and to the extension of the sub-dispensaries in the Western Province

GENERAL SANITATION.

Water Supply.—Mr. W. G. Morris, Water Engineer, arrived in the country early. in the year and has been conducting investigations into the question of pipe-borne supplies for Kampala and Jinja.

I understand that a scheme to supply Jinja from the River Nile has been drawn up and provisionally approved, but that no satisfactory source of supply for Kampala has yet been found.

The present sources of supply in Entebbe from (1) tanks, (2) the Lake, and (3) a spring in the Botanical Gardens, are far from satisfactory and are all liable to serious contamination both chemically and bacteriologically. Sources (2) and (3) have previously been reported on adversely by the Bacteriologist.

Drainage.—Details of the work done in the stations of Kampala, Jinja and Entebbe are given in Tables IV.

Owing to difficulties in obtaining labour, and the increased cost of same not as much was done in Kampala and Jinja as was hoped for. The work done at Entebbe during the year was urgently required and 800 yards of masonry drains were constructed, although no complete scheme for the surface drainage of this township has yet been drawn up.

A complete scheme for Jinja is said to be in existence but I have not yet seen a plan of this.

It is hoped that the Assistant Engineer to the Kampala Municipality, a new appointment this year, will be available to go into these matters, and to assist in drawing up the necessary schemes.

ISOLATION HOSPITALS.

The building of the hospital at Kampala was again postponed, no funds being provided for this purpose in the Estimates. A site on the slopes of Mulago has been provisionally chosen but a settlement has not yet been arrived at with the native owners of the land as to the terms of acquirement of the area wanted. A sum of £3,000 has been provided for this building in 1925.

A permanent isolation hospital for Mbale will be required in the near future.

RECOMMENDATIONS FOR FUTURE WORK.

(*a*) The early completion of the masonry drainage scheme for Entebbe, and the revision and extension of the Kampala and Jinja schemes.

(*b*) Pipe-borne water supplies for Kampala, Jinja and Entebbe. As pointed out in the Annual Report for 1922 systems of efficient masonry surface drainage combined with pipe-borne water supplies will undoubtedly do much to improve the sanitation and public health of these townships, whilst at the same time lessening recurrent Municipal expenditure.

(*c*) The adoption of the new scheme put forward for the reclamation of the swamp area in Kampala, and the more rapid pushing forward of the work of sub-soil drainage, etc., under efficient European supervison.

(*d*) A permanent isolation hospital for Mbale.

(*e*) The gradual replacement of all mud and wattle or other temporary buildings in permanent encampments within the more important townships by permanent buildings which it will be possible to disinfect and to keep free from infestation with spirillum ticks. Permanent encampments include police lines, warders lines, jails, labour camps, etc., and the the townships to which this recommendation should be first applied are those situated in plague endemic or tick-infested areas, and those which import large supplies of labour.

(*f*) The extension of the principle pressed for in my last report of detailing more Medical Officers for purely district as distinct from station work. An additional Medical Officer of Health for the Eastern Province has been sanctioned for 1925 and an outline of the duties required of him has been given under the Administrative section of this Report.

I am still of opinion that more Medical Officers are required for this class of work, *i.e.*, preventive rather than curative medicine, and that the general extension of sub-dispensaries into the various districts renders their presence still more necessary and will greatly increase their sphere of usefulness.

MENGO DISTRICT REPORT.

The more important details of this report are attached as an Annexe to my report, in order to give some idea of the main features of the work on which I was chiefly employed during the year.

J. M. COLLYNS,
Chief Sanitation Officer.

MENGO DISTRICT.

PLAGUE.

	Cases.	Deaths	Counties.		
			Kyadondo.	Kyagwe.	Bulemezi.
1921	440	421	123	301	1
1922	136	123	46	76	—
1923	107	92	64(58)	19(19)	24(15)
1924	114	103	32(27)	41(36)	41(40)

As will be seen, the number of cases has remained much the same during the last three years, although the case distribution, as regards counties varies greatly.

Kyadondo County contributed only half the number it did in 1923, while both Kyagwe and Bulemezi figures were greatly in excess of that year.

Kyadondo.—32 cases with 27 deaths.

The administrative areas of Mutuba I (Nangalo), Mutuba II (Gayaza) and the Sabadu (Kira) accounted for 23 cases with 20 deaths.

Mengo, which last year had 37 cases, this year had only five, and Kampala township, which last year had 12, had only two this.

As regards the different outbreaks, the Nangalo outbreak, occurring during February, at Kawempe, mile 3½ on the Bombo road, was probably from infected rats, as cases had occurred there in December, 1923.

The Gayaza and Kira outbreaks, which were both of the pneumonic type, and which occurred during May and June, were connected, and the original infection traced to Bulemezi, probably Bamunanika.

The first Gayaza case had been living among the Indian shops there, and it is almost certain that he became infected there. He died in the Roman Catholic Mission hospital, Gayaza, but not before several others, including his wife and mother, had become infected, and they ultimately died.

A visitor from Kira, calling to see one of the sick at the hospital, got infected, returned home, died, and infected seven other people, six of whom died.

A case also occurred at Kira in October but this was a visitor from the Nakifuma District, Kyagwe County (an infected area).

Kampala Township.—Two cases only, in Feburary and April, one, an Indian recovering under treatment. Both cases occurred in the Bazaar.

Mengo (environs of Kampala Township).—Five cases with four deaths. Mengo two with two; Namirembe two with one; and Nsambya one with one.

Kyagwe.—41 cases with 36 deaths compared to 19 with 19 in 1923. This year plague has been confined to the two adjoining administrative areas in the Bukoba District of Kyagwe County, that of the Mumyuka (Nakifuma) and that of Mutuba VI (Kitale).

For years past plague has always been present in the Nakifuma District (19 in 1922 and 13 in 1923).

This year the cases total 32 with 28 deaths, all but one occurring in the last 5½ months of the year.

The Kasawo (Kitale) cases occurred during July and August, and were traced to a woman visiting her son in whose house at Nakifuma, a woman had died three days previously of plague; (the son ultimately got plague but recovered).

She took ill there, and her husband came to fetch her back to her home at Namuganga, 12 miles distant. She, her husband and seven others took the infection, and all died, except one.

This outbreak and the cases occurring at Nakifuma during the same period, were with a few exceptions, all of the pneumonic type.

Bulemezi.—Ever since November, 1923, when it started in the Native Bazaar at Bombo, plague has been present in this district.

This year it has been practically confined to the administrative area of Mutuba IV, Bamunanika, as out of a district total of 41 cases 33 occurred here and one in the adjoining administrative area of Kalagala. At the present time (March, 1925) it shows signs of abating.

The remaining seven cases were distributed as follows:—

Bombo.—Two with two deaths.

The first case was a contact of a December, 1923, case and died in quarantine on January 2nd.

The second was an Indian woman, who was infected at Bamunanika, and on returning to the Bazaar at Bombo took ill. She was removed to the quarantine on 20th May and died next day.

Wabikokoma.—Mutuba III. Five cases with four deaths.

The first two were Malakites, and refused any treatment, and one, as far as my information goes, recovered. The third was a contact from Bamunanika who died at Gogonya near Bombo. The other two died at Nkondo, it is suspected that the infection was carried to them by a Gayaza contact, who had escaped from quarantine, and was known to have gone to Nkondo.

Four Indians only contracted plague of whom two recovered under treatment:—

1. Wife of an employee at Rahmutala Allidina Ginnery, Kawempe. Took ill on February 27th Rt. 1. bubo. Quarantined on 29th. Treated with N.A.B. NK. Aborted (4 months) on 4-3-24, and was discharged cured on 27-3-24.
2. Indian, male, in Bazaar, Kampala. Took ill 25-3-24 with slight pain in groin and fever. Did not feel very ill, saw a Church Missionary Society's doctor on April 1st and received medicine as plague not suspected. On 7th April saw Assistant Surgeon Achhru Ram who found B. pestis in gland. He was treated (*see* Register No. 18 below) and discharged cured on 19-4-24.
3. Indian, female, at Bombo. Took ill May 16th and died in quarantine there on the 21st May.
4. Indian, female, at Kalagala, near Bombo, taken ill on 25-9-24. Died on 27-9-24. A septicaemic case which received an intravenous injection of N.A.B. on the 25th.

Cases cured during the year.—There were eleven of these.

No. in plague register.	Residence.	Type of disease.	Treatment and when started.
4	Namaliga (Bulemezi)	Unknown ...	A Malakite and refused treatment.
10	Kawempe (Kyadondo)	B.RA. ...	T. Iodi and N.A.B. ·3 grammes, twice. 5th day
14	Kawempe do	B.RI ...	N.A.B. ·6 gr. NK. ·6 gr. twice. 2nd day
18	Kampala	B.RF ...	Hot fomentations and Mr. Tonic. 13th day.
19	Namirembe	B.RA ...	NK. ·6 gr. by C.M.S. doctor. 2nd day
46	Kira (Kyadondo)	B.R.LA ...	Inoculated 12 days previously
61	Nakifuma (Kyagwe)	B.LF ...	Local to Bubo
66	Kasairo do	B.LF ...	Inoculated the day previous to taking ill.
72	Nakifuma do	B.R.LI ...	do do
93	Nakifuma do	B.LI ...	Nil
94	Nakifuma do	B.LI ...	Nil.

Type of Disease and Site of Buboes—In 103 cases information *re* type was obtainable.

Bubonic:—45 cases, and situation of buboes were as follows:—Inguinal 19, Femoral 13, Axillary 11 and Cervical 2.

Septicaemic:—Primary 22, Secondary to bubonic 10.

Pneumonic:—Primary 34.

Sex Distribution.—About equal. 59 males and 55 females.

Age Distribution.—Practically all cases occurred in young adults, from 16 to 25 years of age. 26 cases occurred in children under 15.

Remarks on the prophylactic effect of the Vaccine.—During the year it has been noticeable that several people have contracted and died from plague who had been inoculated during the year.

The number of days intervening between the inoculation, and the onset of the disease vary so much that it will be as well to give a list of them.

Particulars of 23 cases are recorded compared with 6 in 1923 and the number of days intervening was as follows:—

15. 3. day illness started. 9. 10. 12(c). 37. 1(c). 1(c). 26. 69. 14. 86. 2. 90. 120. 22. 6. 135. 7. 72. 10 and 46.

There are conflicting expert opinions, as to the time necessary, after inoculation, for immunity to be acquired, varying from 24 hours to 8 days, and also in the length of time immunity lasts from 12 to 18 months.

The only cases that recovered, and two of these were reported as mild attacks, had been inoculated 12. 1. and 1 day previous to onset of illness, and they had no other form of treatment.

The other numbers above from 2 and 3 to 120 and 135 do not appear to have acquired any immunity whatever, and provided that the inoculations were carried out properly, that the vaccine was fresh, the bottle shaken, and the dose correct, it is difficult to account for this result, especially in those done some time before.

Six of the cases must have been infected when they were inoculated, and one does not expect the inoculation to abort the disease, *but* two of these recovered, and *they* were inoculated the day before they become ill.

These cases have certainly shaken one's belief in the prophylactic use of this vaccine, as a death occurred this year 1925, in a native who could not possibly have become infected for at least two or three days after he was inoculated. This man though was probably in the negative phase and therefore very susceptible to infection.

The 1 c.c. dose of the present vaccine in certainly giving a reaction, well marked, compared to the same dose which I experimented with in 1923.

During the year 16,977 inoculations have been performed at the following places:—

Kampala Township	...	2,429
Gayaza do	...	1,856
Bulemezi do	...	6,683*
Kyagwe do	...	4,501

395 were done by Inspectors at Mbale, Entebbe District, during August, and the remainder were done at Kawempe, Port Bell and Kibuli.

Rats.—18,988 were killed, poisoned, trapped or found dead. Comparison with the two previous years is as under:—

—	1922	1923	1924
Killed in drives	17,423	9,766	8,969
Poisoned	4,161	10,798	9,566
Trapped	1,547	661	403
Found dead	81	24	50
Number examined	1,130	2,659	3,101
Number plague infected	59	14	2†
Kampala Township	8,127	8,223	7,886
Outside	15,085	13,026	11,102‡

The poison Barium Carbonate is still very effective, and is greatly in demand.

Smallpox.

The present freedom from smallpox in this district is very satisfactory, as the following table shows:—

—	1921		1922		1923		1924	
	C.	D.	C.	D.	C.	D.	C.	D.
Kyadondo	21	5	12	nil	nil	nil	nil	nil
Kyagwe	28	5	11	nil	3	nil	4	nil
Sese	11	3	nil	nil	nil	nil	nil	nil

Three of the four cases occurred in Buikwe (Sabawali) in September or October and the other case in the adjoining administrative area Najembe (Mutuba II) in October.

Vaccinations.—

—	1921	1922	1923	1924
Totals	22,132	10,060	13,446	16,948
Number inspected	14,034	4,728	5,529	9,838
Number successful	11,510	2,722	3,649	8,741
Per cent successful to number examined	82%	59%	66%	90%

* Including Bombo 440. † Katwe and Namirembe. ‡ Includes 656 at Bombo.

The following administrative areas were visited by my vaccinators:—

Kyagwe—12,274. Mutuba I (Nakisunga) 1,196; Musale (Nagojo) 350; Sabawali (Buikwe) 5,502; Sabagabo (Lugala) 3,235; Mutuba II (Najembe) 1,991.

Bulemezi—3,265. Sabawali (Kalagala) 1,391; Mutuba III (Wabikokoma) 1,359; Mutuba VII (Makulubita) 515.

Kyadondo—The remainder were done in this county, at Kampala, Makerere, and at warders' and prisoners' lines at Kampala, Mpanga and Mengo.

No cases of vaccinia have been reported during the year.

Cerebro-Spinal Meningitis.

Two cases only, both ending fatally.

1921	1922	1923	1924
7 ...	14 (13)* ...	16 (12)* ...	2 (2)*

Measles.

This disease has been very prevalent throughout this district during the year.

Chiefs' returns report 458 cases with three deaths compared to 140 and 147 in the two previous years.

Chicken-Pox.

71 cases were reported by chiefs.

Influenza.

Influenza of a mild type was general and widely spread throughout the district, especially in the latter months, 278 cases with two deaths (both Asiatics) being treated at Kampala.

Malaria.

I have to thank the Senior Medical Officer for permission to go through his monthly returns for the following:—

During the year 62 European officials and 81 Asiatic officials have been treated for malaria.

The actual number of days off duty were 250 and 261½ respectively, giving each one attacked an average of 4·03 and 3·23 days off duty.

Though the number of officials suffering from malaria is less than in 1923, (143 compared with 166) yet the number of days off duty is a great deal more, 511½ compared to 253½ or just over double.

	Number Admitted.	Total No. Admissions.	No. Not O.D.	No. of Attacks or Relapses.		
				2nd	3rd	4th
Europeans	62	76	28	8	3	0
Asiatics	81	115	24	10	6	4

Non-Officials, European.—106 admitted during the year.

Blackwater Fever.

18 cases with six deaths compared to 32 cases with seven deaths in 1923 were reported in the Mengo District.

Dysentery.

28 cases were treated during the year in Kampala, types being:—

Amoebic 16, Bacillary 12.

Dr. Cook reports 24 cases, type not stated, two Indians and 22 natives.

Dysentery in the Jails.—

During October a sharp epidemic occurred and continued until the end of the year. *Vide* report on health in previous Section V.

*Brackets = Deaths.

There was nothing inside the jail to cause an outbreak of this severity, everything was clean, all water was boiled, and there were new pit latrines.

The cases were all of the bacillary type, and in many cases the Shiga Bacillus was isolated by the Bacteriologist, which probably accounted for the severity, chronicity, and probable relapses of cases.

Anti-Malarial Work.

General routine visits in the township by the anti-malarial staff, who search for conditions liable to harbour or breed mosquitoes. Up to the end of June the staff consisted of one headman and six assistants, since then one assistant was discharged, and no one engaged in his place.

One man was employed on an anopheline survey mainly in the swamp area.

During the year larvæ were found on 377 occasions, the lowest month being June with one, and the highest August with 72.

Anopheline larvæ accounted for 106 of these, they were found in holes, and pits in the swamp area and in earth drains leading to the swamp. They were also reported from a tank, but as no specimen was brought for identification, this is not included.

Stegomya and Culex practically all came from tanks, drums and barrels, and any receptacle generally used by householders for storing water.

The storage of water in old drums and barrels is a very common thing in Kampala, especially among the Asiatic community, and although in many cases covers are provided, these are seldom used.

No less than 114 notices were served during the year for this type of nuisance, out of a total of 318, official notices.

During February and March, the Bazaar area was visited and inspected with the object of finding potential breeding places of mosquitoes, and the neccessary action to do away with those found was taken.

In April, a like inspection was made of all houses on Nakasero Hill, special attention being given to tanks.

The following is the result of this inspection, and certainly does not speak very highly of the present Government cement tanks:—

Number of tanks examined—162.

	Number	Number containing larvæ	Number with overflow pipes
Government, cement ...	72	23	—
„ iron ...	21	4	12
Private, cement ...	11	2	—
„ iron ...	58	—	19

Only 51 of these tanks are fitted with bottom cleansing pipes, 42 Government and 9 private, leaving 111 with no means of cleaning, except through the manhole when large enough.

One sees from the above that the Public Works Department tanks are the most commonly infected.

A new type of combined manhole and water inlet was approved of in April and arrangements were made to fix it to one of my tanks when it arrived in November. Some parts I believe were missing, for nothing has been done.

The need of properly constructed tanks, with cleansing pipes, and mosquito proof inlets and overflow pipes, is very urgent, as these tanks are by far the most common mosquito breeding places in the residential area, above Circular Road.

The average daily number of old tins, pots and other receptacles removed from compounds and plots was 9·7. It was noticeable that these were on the decrease towards the end of the year.

Five preliminary and 318 official abatement notices were served during the year, 114 being for uncovered water, and the remainder for presence of mosquito larvæ.

Most of the notices were immediately complied with, others were not, and 17 convictions with fines were obtained.

In July the question of closing the Public Works Department brickfields as an anti-malarial measure was discussed. The Acting Director of Public Works agreed and promised to select a new site, and to make provision for new sheds and kilns in his 1925 Estimates. The proximity of the Mengo Planters' brickfields, sublet to the Public Works Department, made it also essential that these should be closed, if any lasting benefit, from an anti-malarial point of view, was to be obtained.

This was pointed out by the Chief Sanitation Officer, but it was ruled by the Acting Chief Secretary that it was not possible to cancel the Mengo Planters' lease until it terminated on December 31st, 1927.

The work of filling in the old clay borrow pits in the Public Works Department brickfields was commenced in September, and a certain improvement is noticed, from an objective point of view only, as with the large square area of water in these brickfields and the big depth of most of them, it will be years before the surface area can be reduced sufficiently to effect its output of mosquitoes.

Larvicide (crude oil and kerosine, mixed with sawdust) is used at present and seems the only way of treating most of these pits, as they are too deep to be drained.

KAMPALA SWAMP.

Paid Labour.—

The average number each month employed was 84·5.

This large average is due to the fact that during the last four months the average number was 151.

Work done.—

This was to a large extent general maintenance work, consisting in clearing, grading, deepening and draining the existing channels, and in clearing bush and long grass in the swamp area.

There was also a good deal of new work done, as follows:—

i. Two new forked channels were cut at the original termination of the main Nakivubo; these were ultimately widened, deepened, silt removed, and attended to periodically.

ii. New channels cut.—

1. On left bank from near the Petrol Godown area.
2. Channel cut to drain the large pool in the angle formed by the Port Bell Road, and the road to Kololo.

iii. Eleven palm pole bridges were constructed over the main and subsidiary channels.

iv. Subsoil Drainage.—

During May quarrying for stone was commenced, for rubbling certain open drains, and during July the work of piping, rubbling and filling in of the subsoil channels, opened up from the springs to the watering place on the Entebbe Road was completed.

Two channels, 80 feet and 43 feet were piped and rubbled.
One channel, 73 feet was rubbled only.

This work was rendered necessary owing to the cutting across of the piped channels leading to the watering place during the construction of the motor tractor line.

An open channel of 480 feet was piped, rubbled and filled in, and a small channel 90 feet in length filled in.

v. In July, the watering place at the foot of main street was not functioning properly, and the work of investigation was put into the hands of the Public Works Department, who found that two of the piped channels to the central outfall were blocked.

By the end of September these were repaired. Estimated cost Shs. 400.

vi. During September, two subsidiary channels, one on each side of the Nakivubo, were filled in, and the work of filling in the clay borrow pits in the Public Works Department brickfields started.

A certain amount of labour was set aside for carting earth for the filling in of these pits during the last three months, and one of the two prison gangs was employed solely on this work.

Prison Labour.—

An average of 42, divided into two gangs, were employed in bush clearing, and a little planting.

24,308 lbs. of sweet potatoes were reaped during May, June and July.

During October, November and December one gang was employed as above, on filling up borrow pits.

Agricultural Department.—

An average of about twenty men employed on routine work on the right-hand bank of the Nakivubo, between the Entebbe and Namirembe Roads. Maize, beans, and sugar-cane have been planted and reaped, and 266 grevillaes planted out.

At the end of the year this work was handed over to the Municipal Authorities who intend planting sugar-cane and maize, mainly for their cattle feeding, but any excess will be sold.

Drainage.—

The present culvert through which the Kitante flows was proved to be inadequate to deal with storm water, flooding occurring on both sides of the stream for several hours when this happened.

The Executive Engineer prepared plans for replacing the present culvert, with a reinforced concrete one, the estimate being Shs. 5,200. This was later on reduced to Shs. 4,000. The money was found, but as the Public Works Department could not undertake the work, nothing was done.

Township Masonry Drains.—

During the year there was a great increase in the amount of work done.

New drains constructed, 2,679 linear feet compared to 899 in 1923.

Culverts.—552 feet of new concrete culverts constructed, many of the old iron ones being done away with.

New Roads.—

1,590 feet constructed, and 24,849 feet of roads and sanitary lanes maintained.

General Sanitary Condition of Township.—

This on the whole has been fairly good as regards general cleanliness. We are still handicapped by the absence of a proper laid-on water supply, necessitating the use of tanks with their mosquito-breeding propensities.

Our night soil service, although the personnel has been increased, has been a great source of worry and annoyance, owing to the haphazard manner in which the men work. Fines seem to be useless, and we are endeavouring to get fresh men for the work from the West Nile District.

I think the time has now come to employ motor transport for our scavenging, it would be much quicker, we would need fewer men and animals, and I think it would be far cheaper in the end.

H. R. NEILSON,

Sanitation Officer.

TABLE IV.

Summary of Routine Sanitary Work done during the Year.

1. NAME OF TOWN—ENTEBBE.

	Approximate area.	Number of proclaimed open spaces.
1922	12 square miles	13
1923	12 square miles	13
1924	12 square miles	13

2. POPULATION.

	Number of Europeans.		Number of Asiatics.		Number of Natives.		Total.
	Males.	Females.	Males.	Females.	Males.	Females.	
1922	110	67	202	88	2,358	2,164	4,989
1923	117	73	234	104	2,466	2,152	5,146
1924	107	69	223	87	2,366	2,052	4,904

3. HOUSING.

	Number occupied by Europeans.	Number occupied by Asiatics.	Number occupied by Natives.
Number of Houses :—			
1922	90	105	285
1923	96	138	385
1924	101	147	399

Number of Huts :—	
1922	3,071
1923	1,539
1924	1,450

4. ERECTION OF NEW BUILDINGS DURING THE YEAR.

	1922	1923	1924
Number of houses built without sanction	—	—	—
Number of huts built without sanction	—	—	—

ACTION TAKEN.

	Number of Prosecutions.	
	Huts.	Houses.
1922	—	—
1923	—	—
1924	—	—

5. LATRINES.

	For Males.		For Females.	
	Number.	Number of seats.	Number.	Number of seats.
Number of public latrines :—				
1922	5	24	—	—
1923	5	24	—	—
1924	5	24	—	—
Number of new public latrines erected during the year :—				
1922	—	—	—	—
1923	—	—	—	—
1924	—	—	—	—

LATRINES—*contd.*

	1922	1923	1924
Number of private latrines	450	375	397
Average number of pails of nightsoil removed daily	450	465	477
Average number of soiled pails removed and clean pails substituted	51	34	32
Number of nightsoil men employed to clean latrines and remove excreta	24	24	24
Number of cesspools	1,108	1,011	976
Number of cesspools cleansed	—	—	—
Number of new cesspools constructed during the year	567	548	210
Number of old cesspools abolished	376	645	245

6. REMOVAL OF REFUSE.

	1922	1923	1924
Number of dustbins	137	171	177
Number of carts at work daily to remove refuse from streets ...	9	9	10
Amount of refuse removed daily	27	27	30
Number of carts at work daily to remove refuse from yards and premises	Included in above		
Amount of refuse removed daily from yards and premises (cart loads)			
Number of men employed for removing refuse	18	18	20

7. MODE OF DISPOSAL OF EXCRETA, REFUSE, AND OFFAL.

	Daily average number of pails of Excreta.			Daily average number of cartloads of Refuse.			Daily average number of cartloads of Slaughter House and Market Offal.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924
Buried or trenched ...	450	465	477	27	27	30	1	1	1
Burnt	—	—	—	—	—	—	—	—	—
Thrown into sea ..	—	—	—	—	—	—	—	—	—
Otherwise dealt with ...	—	—	—	—	—	—	—	—	—

8. AVERAGE DAILY NUMBER OF CARTLOADS OF TIN CANS, BOTTLES, BROKEN CROCKERY, AND OTHER INCOMBUSTIBLE MATERIAL REMOVED FROM HOUSES, HUTS AND COMPOUNDS.

1922	1923	1924
¼	¼	¼

9. WATER SUPPLY.

Nature of Water Supply.	1922.	1923.	1924.
PIPE-BORNE WATER :—			
Source (river, lake, or spring) :—			
Number of stand-pipes along roads	—	—	—
Number of stand-pipes in compounds and houses ...	—	—	—
WELLS :—			
Public :—			
Number	28	30	28
Number with pumps protected against surface water and mosquito-protected	—	—	—
Private :—			
Number	3	3	3
Number protected against surface water and mosquito-protected	—	—	—

9. WATER SUPPLY—*contd.*

Nature of Water Supply.	1922	1923	1924
TANKS :—			
Public :—			
Number mosquito-protected and served by pumps ...	—	—	—
Number above ground	—	—	—
Number mosquito-protected	—	—	—
Private :—			
Number underground	3	3	3
Number mosquito-protected	3	3	3
Number above ground	152	284	290*
Number mosquito-protected	149	284	290*
Number of 400 gallons capacity or less ...	6	6	8
Number above 400 gallons	149	281	285
Nature of tank :—			
Wood	—	—	—
Iron	18	52	29
Concrete	134	232	264
Barrels :—			
Number	46	44	14
Number mosquito-protected	17	27	9

10. DRAINAGE.

Nature of Drainage.	Public.	Private.
Masonry drains :—		
Linear yards of masonry drains :—		
1922	2,161	617
1923	2,450	617
1924	3,250	617
Linear yards reconstructed during the year :—		
1922	—	—
1923	—	67
1924	—	—
Linear yards repaired during the year :—		
1922	—	50
1923	—	—
1924	300	—
Linear yards of new drains constructed during the year :—		
1922	—	5
1923	289	—
1924	800	—
Earth drains or ditches :—		
Number of linear yards of ditches cleaned :—		
1922	No record	No record
1923	,,	,,
1924	,,	,,
Number of linear yards of ditches dug and graded :—		
1922	,,	,,
1923	,,	,,
1924	,,	,,
Average frequency of clearing ditches of grass :—		
1922	1 monthly	1 monthly
1923	1 ,,	1 ,,
1924	2 ,,	2 ,,

11. INSPECTIONS AND PROSECUTIONS.

	1922.	1923	1924.
Number of inspectors employed	2	2	3
Number of houses inspected	480	519	647
Number of houses where larvæ were found	10	24	44
Number of notices served to remove conditions causing the breeding of larvæ	10	24	44
Number of persons fined for having mosquito larvæ on premises ..	—	—	—
Number of notices served to remove insanitary conditions on premises	20	62	214
Number of persons fined for not removing insanitary conditions after notice	—	—	—
Number of soda and ærated water factories inspected ...	1	1	1

*Very few of these are really mosquito-proof.

C. L. BRUTON,
for District Commissioner, Entebbe.

TABLE IV.

Summary of Routine Sanitary Work done during the Year.

1. NAME OF TOWN—KAMPALA.

	Approximate area	Number of proclaimed open spaces.
1922	3,220 Acres	8
1923	3,220 Acres	8
1924	3,220 Acres	8

2. POPULATION.

	Number of Europeans.		Number of Asiatics.		Number of Natives.		Total.
	Males.	Females.	Males.	Females.	Males.	Females.	
1922	176	108	709	325	1,261	362	2,941
1923	188	109	743	337	1,304	407	3,088
1924	197	113	774	362	1,423	468	3,337

3. HOUSING.

	Number occupied by Europeans.	Number occupied by Asiatics.	Number occupied by Natives.
Number of Houses :—			
1922	149	468	525
1923	153	416	537
1924	156	417	540

Number of Huts :—	
1922	1,076
1923	1,040
1924	1,043

4. ERECTION OF NEW BUILDINGS DURING THE YEAR.

	1922	1923	1924
Number of houses built without sanction	—	—	—
Number of huts built without sanction	—	—	—

ACTION TAKEN.

	Number of Prosecutions.	
	Huts.	Houses.
1922	—	—
1923	—	—
1924	—	—

5. LATRINES.

	For Males.		For Females.	
	Number.	Number of seats.	Number.	Number of seats.
Number of public latrines :—				
1922	16	74	2	14
1923	16	74	2	14
1924	16	74	2	14
Number of new public latrines erected during the year :—				
1922	—	—	—	—
1923	—	—	—	—
1924	—	—	—	—

LATRINES—*contd.*

	1922	1923	1924
Number of private latrines	822	856	977
Average number of pails of nightsoil removed daily ...	1,020	1,054	1,065
Average number of soiled pails removed and clean pails substituted	33	74	27
Number of nightsoil men employed to clean latrines and remove excreta	76	85	93
Number of cesspools	—	—	—
Number of cesspools cleansed	—	—	—
Number of new cesspools constructed during the year	—	—	—
Number of old cesspools abolished	—	—	—

6. REMOVAL OF REFUSE.

	1922	1923	1924
Number of dustbins	162	178	362
Number of carts at work daily to remove refuse from streets ...	16	16	16
Amount of refuse removed daily	74	74	96
Number of carts at work daily to remove refuse from yards and premises	17	16	16
Amount of refuse removed daily from yards and premises (cart loads)	68	68	68
Number of men employed for removing refuse	83	85	93

7. MODE OF DISPOSAL OF EXCRETA, REFUSE, AND OFFAL.

	Daily average number of pails of Excreta.			Daily average number of cartloads of Refuse.			Daily average number of cartloads of Slaughter House and Market Offal.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924
Buried or trenched ...	1,020	1,054	1,065	—	—	—	2	2	2
Burnt	—	—	—	—	—	—	—	—	—
Thrown into sea ..	—	—	—	—	—	—	—	—	—
Otherwise dealt with ...	—	—	—	68	68	96	—	—	—

8. AVERAGE DAILY NUMBER OF CARTLOADS OF TIN CANS, BOTTLES, BROKEN CROCKERY, AND OTHER INCOMBUSTIBLE MATERIAL REMOVED FROM HOUSES, HUTS AND COMPOUNDS.

1922	1923	1924
2	2	2

9. WATER SUPPLY.

Nature of Water Supply.	1922.	1923.	1924.
PIPE-BORNE WATER :—			
Source (river, lake, or spring) :—			
Number of stand-pipes along roads	—	—	—
Number of stand-pipes in compounds and houses ...			
WELLS :—			
Public :—			
Number	6	6	6
Number with pumps protected against surface water and mosquito-protected	6	6	6
Private :—			
Number	1	1	1
Number protected against surface water and mosquito-protected	1	1	1

9. WATER SUPPLY—*contd.*

Nature of Water Supply.	1922	1923	1924
TANKS:—			
Public:—			
Number mosquito-protected and served by pumps ...	—	—	—
Number above ground	—	—	—
Number mosquito-protected	—	—	—
Private:—			
Number underground	10	10	10*
Number mosquito-protected	10	10	10*
Number above ground	279	284	294*
Number mosquito-protected	279	284	294
Number of 400 gallons capacity or less ...	155	160	166
Number above 400 gallons	134	134	138
Nature of tank:—			
Wood	—	—	—
Iron	227	227	229
Concrete	52	57	75
Barrels:—			
Number	2	—	32
Number mosquito-protected	—	—	32

10. DRAINAGE.

Nature of Drainage.	Public.	Private.
Masonry drains:—		
Linear yards of masonry drains:—		
1922	7,030	No record
1923	7,929	,,
1924	8,822	,,
Linear yards reconstructed during the year:—		
1922	—	,,
1923	169	,,
1924	150	,,
Linear yards repaired during the year:—		
1922	—	,,
1923	492	,,
1924	—	,,
Linear yards of new drains constructed during the year:—		
1922	578	,,
1923	899	,,
1924	893	,,
Earth drains or ditches:—		
Number of linear yards of ditches cleaned:—		
1922	10,120	,,
1923	9,302	,,
1924	8,409	,,
Number of linear yards of ditches dug and graded:—		
1922	300	,,
1923	45,511	,,
1924	71,105	,,
Average frequency of clearing ditches of grass:—		
1922	6	,,
1923	12	,,
1924	12	,,

11. INSPECTIONS AND PROSECUTIONS.

	1922.	1923	1924.
Number of inspectors employed	2	3	3
Number of houses inspected	2,158	2,362	2,732
Number of houses where larvæ were found	353	319	172
Number of notices served to remove conditions causing the breeding of larvæ	77	173	325
Number of persons fined for having mosquito larvæ on premises ..	—	—	17
Number of notices served to remove insanitary conditions on premises	189	163	463
Number of persons fined for not removing insanitary conditions after notice	22	11	59
Number of soda and ærated water factories inspected ...	2	2	2
Number of people fined for selling impure milk	11	23	22

*Very few of these are really mosquito-proof.

GEO. McKENZIE,
Executive Officer, Township Authority.

TABLE IV.

Summary of Routine Sanitary Work done during the Year.

1. NAME OF TOWN—JINJA.

	Approximate area.	Number of proclaimed open spaces.
1922	2,560 acres, approx. 4 sq. miles ...	*10
1923	do ...	*11
1924	do ...	†10

2. POPULATION.

	Number of Europeans.		Number of Asiatics.		Number of Natives.		Total.
	Males.	Females.	Males.	Females.	Males.	Females.	
1922	32	16	2,345	‡1,470	‡	‡	3,863
1923	42	19	600	220	2,202	1,338	4,421
1924	50	22	615	250	2,500	1,600	5,037

3. HOUSING.

	Number occupied by Europeans.	Number occupied by Asiatics.	Number occupied by Natives.
Number of Houses :—			
1922	65	316	—
1923	67	324	—
1924	67	334	—
Number of Huts :—			
1922			860 approx.
1923			840 ,,
1924			1,090 ,,

4. ERECTION OF NEW BUILDINGS DURING THE YEAR.

	1922	1923	1924
Number of houses built without sanction	—	—	—
Number of huts built without sanction	—	—	—

ACTION TAKEN.

	Number of Prosecutions.	
	Huts.	Houses.
1922	—	—
1923	—	—
1924	—	—

5. LATRINES.

	For Males.		For Females.	
	Number.	Number of seats.	Number.	Number of seats.
Number of public latrines :—				
1922	43	48	—	—
1923	46	51	—	—
1924	46	58	—	—
Number of new public latrines erected during the year :—				
1922	2	—	—	—
1923	3	7	—	—
1924	—	—	—	—

*Tennis courts, European, Goans and Indians, and Sports Club grounds and one square.
†Tennis courts, Europeans, Goans, and Indians, and Sports Club grounds and one square; and square and one European children's playground.
‡Asiatics including natives.

LATRINES—*contd.*

	1922	1923	1924
Number of private latrines	325	331	344
Average number of pails of nightsoil removed daily	635	675	725
Average number of soiled pails removed and clean pails substituted	—	331	344
Number of nightsoil men employed to clean latrines and remove excreta	33	39	54
Number of cesspools	43	43	45
Number of cesspools cleansed	—	—	—
Number of new cesspools constructed during the year	—	—	2
Number of old cesspools abolished	—	—	—

6. REMOVAL OF REFUSE.

	1922	1923	1924
Number of dustbins	50	50	54
Number of carts at work daily to remove refuse from streets	9	3	3
Amount of refuse removed daily	95	30	40
Number of carts at work daily to remove refuse from yards and premises	included in above	6	6
Amount of refuse removed daily from yards and premises (cart loads)	included in above	70	40
Number of men employed for removing refuse	30	50	54

7. MODE OF DISPOSAL OF EXCRETA, REFUSE, AND OFFAL.

	Daily average number of pails of Excreta.			Daily average number of cartloads of Refuse.			Daily average number of cartloads of Slaughter House and Market Offal.		
	1922	1923	1924	1922	1923	1924	1922	1923	1924
Buried or trenched	660	700	725	40	60	80	2	3	4
Burnt	—	—	—	—	—	—	—	—	—
Thrown into sea	—	—	—	—	—	—	—	—	—
Otherwise dealt with	—	—	—	—	—	—	—	—	—

8. AVERAGE DAILY NUMBER OF CARTLOADS OF TIN CANS, BOTTLES, BROKEN CROCKERY, AND OTHER INCOMBUSTIBLE MATERIAL REMOVED FROM HOUSES, HUTS AND COMPOUNDS.

1922	1923	1924
8	11	10

9. WATER SUPPLY.

Nature of Water Supply.	1922.	1923.	1924.
PIPE-BORNE WATER:—			
Source (river, lake, or spring):—			
Number of stand-pipes along roads	—	—	—
Number of stand-pipes in compounds and houses	—	—	—
WELLS:—			
Public:—			
Number	—	—	—
Number with pumps protected against surface water and mosquito-protected	—	—	—
Private:—			
Number	—	1	1
Number protected against surface water and mosquito-protected	—	—	—

9. WATER SUPPLY—*contd.*

Nature of Water Supply.	1922	1923	1924
TANKS :—			
Public :—			
Number mosquito-protected and served by pumps ...	—	—	—
Number above ground	—	—	—
Number mosquito-protected	—	—	—
Private :—			
Number underground	—	—	—
Number mosquito-protected	—	—	—
Number above ground	58	65	78
Number mosquito-protected	58	65	78*
Number of 400 gallons capacity or less ...	55	62	75
Number above 400 gallons	3	3	3
Nature of tank :—			
Wood	—	—	—
Iron	45	45	45
Concrete	13	20	33
Barrels :—			
Number	—	—	—
Number mosquito-protected	—	—	—

10. DRAINAGE.

Nature of Drainage.	Public.	Private.
Masonry drains :—		
Linear yards of masonry drains :—		
1922	550	750
1923	800	770
1924	1,728	820
Linear yards reconstructed during the year :—		
1922	—	—
1923	—	—
1924	—	—
Linear yards repaired during the year :—		
1922	25	—
1923	25	—
1924	Not known	—
Linear yards of new drains constructed during the year :—		
1922	200	50
1923	250	20
1924	928	42
Earth drains or ditches :—		
Number of linear yards of ditches cleaned :—		
1922		
1923		
1924		
Number of linear yards of ditches dug and graded :—	1,600 yards including the new Township.	
1922		
1923		
1924		
Average frequency of clearing ditches of grass :—		
1922		
1923	Every month	
1924		

11. INSPECTIONS AND PROSECUTIONS.

	1922.	1923	1924.
Number of inspectors employed	2	2	1
Number of houses inspected	316	324	334
Number of houses where larvæ were found	5	—	9
Number of notices served to remove conditions causing the breeding of larvæ	30	25	36
Number of persons fined for having mosquito larvæ on premises ...	—	—	—
Number of notices served to remove insanitary conditions on premises	75	100	95
Number of persons fined for not removing insanitary conditions after notice	—	—	—
Number of soda and ærated water factories inspected ...	—	—	—
Number of people fined for selling impure milk	—	—	—

*Very few of these are really mosquito-proof.

C. E. E. SULLIVAN,
District Commissioner.

APPENDIX No. I.

Report on Blackwater Fever in Uganda for 1924,

By Major R. J. A. Macmillan, D.S.O., Acting Deputy P.M.O.

1. During the year under review 70 cases were treated, of which 23 ended fatally—three of these cases with one death were reported by C.M.S. doctors.

The following table shows the number of cases, deaths and case death rates during the past 20 years:—

Year.	Cases.	Deaths.	Case death-rate.
1905	14	3	21·4
1906	41	4	9·8
1907	10	2	20·0
1908	13	2	15·4
1909	21	6	28·6
1910	26	6	23·1
1911	18	3	16·6
1912	45	9	20 0
1913	58	12	20·7
1914	82	21	25·6
1915	65	18	27·7
1916	46	10	21·7
1917	49	8	16·5
1918	40	7	17·5
1919	83	18	21·7
1920	56	7	12·5
1921	62	15	24·1
1922	83	14	16·8
1923	71	17	24·0
1924	70	23	32·8

2. *Locality and Seasonal Variation.*—

Buganda Kingdom—23 cases with 8 deaths occurred as against 43 cases with 10 deaths in 1923.

Eastern Province—40 cases with 14 deaths as against 23 cases with 7 deaths in 1923.

Northern Province—6 cases with 1 death as against 5 cases with "Nil" deaths in 1923.

Western Province—1 case with "Nil" death as against "Nil" cases in 1923. (With reference to this case please *see* para. 19 of this report.)

July and November show the greatest incidence, there being 10 cases in each month.

April and September show the lowest incidence with two cases each.

The months in which the highest incidence occurred were the months in which the lowest temperatures were recorded. The rainfall may affect the incidence of Blackwater Fever in that it certainly influences the incidence of malaria and the higher the incidence of malaria the more chance there is of cases of Blackwater Fever occurring.

The following table shows the stations or localities at which the Blackwater Fever was contracted, the number of deaths, and the monthly variation :—

Stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	1924 Total Cases	1924 Total Deaths	1923 Total Cases	1923 Total Deaths
BUGANDA KINGDOM.																
Entebbe ...	1	...	...	...	...	...	...	...	...	...	1*	...	2	1	6	1
Kampala ...	2	2	2	...	3	4	2	1	1	...	...	1	18	6	32	7
Kampala C.M.S. ...	...	...	...	...	1	1	...	...	...	...	...	...	2	1	3	...
Bombo ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Masaka ...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	1
WESTERN PROVINCE.																
Mbarara ...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
Toro ...	...	...	...	..	...	1	...	...	...	...	...	...	1	...	...	...
Kabale ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NORTHERN PROVINCE.																
Hoima ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Masindi ...	...	...	...	...	...	...	...	...	...	...	1	..	1	...	1	...
Butiaba ...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	3	...
Gulu ...	1	...	...	...	...	...	1	...	...	...	...	...	2	...	1	...
Arua ...	...	...	...	...	...	...	...	1	...	...	...	1	2	1	...	...
EASTERN PROVINCE.																
Jinja ...	...	2	...	...	1	...	2	3	...	1	5	2	16	6	13	3
Namasagali ...	...	...	1	...	1	...	1	...	1	...	...	...	4	2	3	1
Mbale ...	...	...	1	1	...	1	2	...	...	2	2	1	10	4	4	2
Soroti ...	1	...	1	...	1	...	1	2	...	...	...	...	6	2	...	...
do C.M.S. Ngora ...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Lira ...	...	...	...	...	...	1	...	...	...	...	...	1	2	...	3	1
Moroto ...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
TOTAL 1924 ...	5	4	6	2	7	8	10	7	2	3	10	6	70	23	...	...
TOTAL 1923 ...	5	4	6	6	1	9	10	6	9	7	4	4	...	...	71	17

* Contracted whilst *en route* to Entebbe from Kisumu.

3. *Race, Sex and Age Incidence.—*

	Nationality. Europeans.	Indians.	Goans.	Cingalese.
SEX :—				
Males	9	44	9	2
Females	1	4	2	0
DEATHS :—				
Males	2	17	1	1
Females	0	2	0	0

AGES.

	Under 10	11-20	21-30	31-40	41-50	Unknown.	Total.
Cases ...	3	8	36	18	4	1	70
Deaths ...	1	3	10	7	1	1	23

4. *Table showing incidence between Officials and Non-Officials.—*

	Europeans. Cases. M.	Cases. F.	Deaths. M.	Deaths. F.	Asiatics. Cases. M.	Cases. F.	Deaths. M.	Deaths. F.	Total Cases.
Officials	3	—	—	—	18	1	5	—	22
Non-Officials ...	6	1	2	—	37	4	14	2	48

5. *Length of Residence in the Tropics : Europeans only.—*

	Under 1 year.	1-5	6-10	11-15	16-20	Many years.	Not stated.
Cases ...	—	3	1	1	2	2	1
Deaths ...	—	1	—	—	—	1	—

6. *Previous Attacks of Blackwater.*—

24 cases had had previous attacks and seven of these ended fatally. Of the 24 cases every one had a history of having suffered from fever since the last attack of Blackwater.

16 cases	had	1 previous attack and 4 ended fatally in 2nd attack.
2	„ „	2 previous attacks.
2	„ „	3 previous attacks and 1 ended fatally in 4th attack.
1	„ „	4 previous attacks and 1 ended fatally in 5th attack.
1	„ „	5 previous attacks.
1	„ „	7 previous attacks.
1 case	„	unknown number and 1 ended fatally in unknown attack.

7. *Predisposing Causes.*—

Every case had a history of previous and more or less frequent attacks of malaria which had been inadequately treated.

8. *Exciting Causes.*—

Over-exertion, chill, exposure	26
Malaria (during or following on an attack)	16
Malaria (chronic, inadequately treated)	18
Quinine intolerance	1
Quinine (apart from idiosyncrasy, dose being large enough to excite B.W.F.)	3
Unknown	6

9. *Quinine Habits.*—

Regularly taken	10
Irregularly taken	51
Not taken (definitely)	4
Unknown	5

10. *Mosquito Protection—House protected by wiring and use of sleeping net.*—

(*a*) 10 cases of B.W.F. took quinine regularly as a prophylactic.
3 of these lived in adequately protected houses and used sleeping nets.
2 „ lived in unprotected houses and used sleeping nets.
3 „ lived in unprotected houses and did not use sleeping nets.
Remaining 2 cases mosquito protection unknown.

(*b*) 4 cases of B.W.F. never took quinine as a prophylactic.
2 cases lived in protected houses and used sleeping nets.
1 case lived in an unprotected house and did not use a net.
1 case mosquito protection unknown.

(*c*) 51 cases of B.W.F. took quinine irregularly.
13 cases lived in protected houses and used sleeping nets.
1 case lived in a protected house but did not use a net.
16 cases lived in unprotected houses and used nets.
11 cases lived in unprotected houses but did not use nets.
10 cases mosquito protection unknown.

11. Anopheles mosquitoes were prevalent in the localities where Blackwater Fever was recorded.

12. *Blood Examinations.*—In 17 cases the blood was examined prior to the attack of Blackwater with the following results:—

Negative	6
Sub-tertian parasites	4
Benign tertian	4
Mixed infection	3

In 49 cases the blood was examined during the attack with the following results:—

Negative	27
Sub-tertian	15
Benign tertian	5
Mixed infection	2

Unfortunately no records were made of blood films examined after cessation of the attack.

Differential Counts.—In many cases the red cells were reported to be crenated, deficient in haemoglobin, and in one case the ruptured cells were reported to be as many as one ruptured out of every ten red cells.

From an analysis of the red cell counts it is demonstrated that on cessation of haemoglobinuria the red cells are reduced in number on an average to between 3,500,000 and 3,000,000.

In one particular case (European male) the reds were reduced to 1,500,000 and

3	days	after the cessation of haemoglobinuria the count was		1,750,000
10	,,	,,	,,	2,200,000
17	,,	,,	,,	2,620,000
24	,,	,,	,,	3,000,000
On discharge from hospital the count was				4,800,000

Recuperation was roughly at the rate of 400,000 red cells per week.

The white cell count varied from 6,000 to 18,000.

The differential count showed on an average that the number of :—

Polymorphonuclears was normal, Large Lymphocytes and Small Lymphocytes were diminished, Large Mononuclears was greatly increased, Eosinophils was increased, Basophils was increased.

13. *Duration of Haemoglobinuria.*—(*a*) In cases without relapse :—61 cases with 21 deaths occurred.

Duration	Unknown	Under 1 day	1 day	1½ days	2 days	2½ days	3 days	4 days	5 days	6 days
Cases	7	8	6	7	10	6	8	3	4	2
Deaths	1	2	1	3	3	3	6	—	2	—

(*b*) In cases with relapse :—Nine cases with two deaths occurred.

5 cases had 1 relapse—1 death.
1 case had 2 relapses—1 death.
2 cases had 3 relapses—nil deaths.
1 case had 16 relapses—nil deaths.

Case	Original Attack	Interval	1st Relapse	Interval	2nd Relapse	Interval	3rd Relapse	Result
1	12 hours ...	5 days ...	20 hours ...	...	...	...	...	Recovery
1	84 hours ...	1 day ...	48 hours ...	...	...	...	...	Death
1	Under 24 hours	1 day ...	Under 24 hours	...	...	...	...	Recovery
1	4 days ...	2½ days ..	24 hours ...	...	...	...	...	do
1	Under 24 hours	5 days ...	under 24 hours	...	...	...	...	do
1	36 hours ...	2 days ...	24 hours ...	2 days	2 hours	...	...	Death
1	2 days ...	1 day ...	24 hours ...	1 day	24 hours	1 day	24 hours	Recovery
1	3 relapses but duration and intervals not mentioned.							Recovery
1	16 relapses covering 20 days but duration and intervals not mentioned.							Recovery

14. *Cause of Death.*—23 deaths :—

18 Due to cardiac failure.
2 Due to Suppression and Cardiac Failure.
2 Due to Suppression.
1 Due to Uraemia following Suppression.

15. *Signs and Symptoms.*—

Apart from prodromata and haemoglobinuria the following were most constant :—

Thirst...	67	
Vomiting and nausea	62	
Jaundice	61	
Enlarged spleen	61	in 19 of which there was no tenderness.
Pain over loins	41	

16. *Albuminuria.*—

Reported present in	52	cases.
Reported absent in	5	,,
Not stated in	13	,,

Re-action.—

The urine was acid in	34	,,
,, neutral in	14	,,
,, alkaline in	4	,,
,, not stated in	18	,,

17. *Complications.*—

Suppression of urine	....	....	4
Retention of urine	....	....	3
Suppression and uræmia	....	....	1
Hiccough	....	....	9

18. *Treatment.*—A preliminary purge, preferably calomel, should be given. The value of large quantities of cold water taken by the mouth cannot be over-estimated and this may be said to rank as a method of treatment by itself. To every feeder full of water a pinch of Sod. Bicarb. should be added in order to compensate for any exhaustion of salts which may occur from the blood.

The minimum amount of water taken, apart from other fluid beverages, should be six pints in 24 hours, but many patients will take more than this. Two to three ounces of water should be given every 20 minutes. The result is a marked diminution in and improvement of such symptoms as headache, restlessness, delirium and an early clearing up of the haemoglobinuria. One would expect a certain amount of discomfort, *e.g.*, meteorism and abdominal distension from this treatment, but such is not the case.

Initial injections of 1 c.c. of Pituitrin appear to have had a good effect, and in some stations it is now used as a routine method of treatment. It appears to maintain the blood pressure and to avert suppression. When signs of suppression have manifested themselves the injection is repeated two hourly and the results have been very satisfactory.

Hearsey's Mixture is still a favourite with many Medical Officers and it frequently gives satisfactory results.

Intra-muscular injections of quinine are given when the use of this drug is indicated, *e.g.*, persistence of parasites in the blood during an attack, hyperpyrexia, vomiting, etc.

In dangerous cases where the patient does not respond to other treatment quinine should always be given a trial; it has frequently produced surprising effects when the patient's life has been despaired of.

Cardiac failure is a very grave feature in this disease and it should be guarded against from the very beginning, *i.e.*, rest in bed must be absolute, the use of only one pillow, thus keeping the head low, is strongly advocated, cardiac stimulants should be given early.

In one European case, the urine had been clear for eleven days after a very sharp attack of haemoglobinuria and the patient was still confined to bed as cardiac symptoms manifested themselves—he sat up in bed against orders, collapsed, and died.

Salvarsan and its substitutes have been tried in several cases, but with no marked results.

Salines were given subcutaneously and intravenously in eleven cases and six of these died; this method should be used when the patient can retain nothing in his stomach owing to vomiting.

19. *Conclusions.*—

The diminution in the number of cases in the Buganda Province is due to the effects of better mosquito control coupled with the more adequate treatment of malaria cases in Kampala.

Although one case of Blackwater Fever is reported from the Western Province, it was not contracted there, the patient had suffered from much malaria in Buganda and went to Fort Portal a few days before the attack of Blackwater came on. *En route* a severe chill was contracted and this precipitated the attack.

There are three stations in the Western Province, and the following table gives the number of cases of malaria treated at each of these stations during the years 1923 and 1924:—

Station.	Height above Mean Sea Level.	Cases of Malaria.	
	Feet	1923	1924
Fort Portal	5,201	78	215
Mbarara	4,832	120	131
Kabale	6,200	49	31

Unfortunately the incidence of malaria cannot be given as the populations in these stations are unknown, but the Medical Officers report it as being very small.

The increase in cases in the Eastern Province is due to the increase in European and Asiatic populations and also to the bad conditions which maintain there.

From a careful analysis of 224 cases which have occurred in this Protectorate during the past three years and from personal experience there appears to be excellent grounds for coming to the following conclusions:—

(*a*) There is such a thing as quinine intolerance and this drug can produce haemoglobinuria in cases which exhibit this idiosyncrasy—a case is cited this year of a young Asiatic who whenever quinine is given him at once develops Blackwater within the hour—he has had eight attacks already, owing to Medical Officers not believing his statement and attempts being made to conceal the quinine in mixtures—he carries a medical certificate now that he cannot tolerate quinine and that it must not be given him.

(*b*) Apart from quinine intolerance there is also a critical exciting dose of quinine—it may be 10, 15, 20, 30, 40 grains or more—which according to experience in this Protectorate, certainly precipitates attacks of Blackwater in certain cases.

(*c*) It would appear that in a great many cases a second attack, not a relapse, is dependent on the patient being re-infected with a fresh malarial infection since the first attack. I mention this because our statistics show that many cases who have had more than one attack have suffered from malaria more or less inadequately treated in between the attacks of Blackwater; yet there are cases who have suffered from one attack of Blackwater and who have been sent or who have gone to a non-malarial region and they have had no further malarial attacks and no further attacks of Blackwater.

(*d*) There is a very grave risk of cardiac failure in every case, in 18 cases this year death was due to this and of these 18 cases 13 had been moved either during the attack or shortly after it. Unless unavoidable, therefore, no case of Blackwater Fever should be moved, and if it has to be moved the same care should be taken as would be exercised in moving a case of diphtheria.

R. J. A. MACMILLAN, Major,
Acting Deputy Principal Medical Officer.

APPENDIX No. II.

Annual Report on Enteric Fever for 1924.

Eleven cases with three deaths have been definitely diagnosed as Enteric Fever during the year. Of these, three were Asiatics and eight natives, three of the latter dying. Six of the cases were reported from Kampala; four of these were treated by Dr. Albert Cook at the C.M.S. Hospital, one at Mulago (a prisoner from Luzira Gaol) and one at the Asiatic Hospital. No return was received from Nsambya Hospital. Of the other cases two occurred at Lira, one at Masindi, one at Jinja and one at Entebbe, the Lira and Entebbe cases proving fatal.

The blood of five out of the eleven cases was subjected to the widal test and of these cases three were positive to *B. typhosus*, one positive to *Para typhoid A* and one negative.

Of the three fatal cases, the blood of one was positive to *B. typhosus* as early as the seventh day of the illness. The blood of the other two was not submitted to the widal test.

A continuation of the investigations commenced by Dr. Duke in 1923 to determine the prevalence of the enteric group of organisms amongst natives of the Protectorate was carried out during the year, the results of which are mentioned in the report of the Bacteriological Department.

J. M. COLLYNS,
Chief Sanitation Officer.

APPENDIX No. III.

Review of Native Medical Services for 1924.

By Major G. J. Keane, D.S.O., Deputy P.M.O. (Native Services).

During the past year considerable development of the medical service for natives has occurred; this is reflected in the returns which show an increase of 73,076 new cases over the numbers treated in 1923, thus approximating the estimate which was made last year of a quarter of a million new cases for 1924. Re-attendances and new cases together reached over one and a quarter million.

During the year proposals for over fifty new sub-dispensaries have been made. The majority of these are now in process of establishment and thus the hoped for extension of treatment facilities to the masses of native population in outlying localities is gradually being accomplished.

Labour.

With the development of an organization for the recruitment and supervision of labour, an organization for the treatment of their sick and supervision of the sanitation of labour camps is also being evolved. Roughly 15,000 contract labourers are concerned and it will readily be understood that even a slight increase of the sick rate amongst them involves an enormous loss to the public. A native medical attendant is posted in each labour camp and visits by Medical Officers to all camps are being arranged. An admirable instance of the beneficial results of efficient supervision, proper housing, cooking, and medical and sanitary conditions is afforded by the new railway construction labour arrangements where the general sick rate is exceptionally low. A much higher sick rate than this prevails amongst non-railway construction labour, but it is hoped that all labour will be brought into line with railway conditions in due course. The importance from an economic standpoint of proper cooking and dietary arrangements is not yet fully appreciated by employers. Raw labourers have a predilection for eating raw or half-cooked maize meal, a practice inevitably associated with a high sick and death rate from enteritis, diarrhoea and dysentery. These diseases head the list of death rates and sick rates amongst labour and are of course largely preventable. Raw labourers will drink the most polluted water, overcrowd their huts, and break every single axiom of elementary sanitation unless closely supervised. Their efficiency as labourers is thereby much impaired with a corresponding loss to the public.

Medical Stores.

(*a*) General Stores.—The increase in the numbers of sick treated has involved a greatly increased consumption of medical stores, indeed it has been almost impossible to keep pace with the demands and a more generous provision will be necessary on this sub-head if we are to afford anything approaching efficient treatment to the numbers of patients now attending. A rough estimate of the average cost of stores consumed per attendance for the year 1924 works out at approximately 20 cents of a shilling per attendance, which it will be realised is very low.

(*b*) Salvarsan Substitutes.—The distribution of these drugs has been severely limited by our supplies; recovery of the cost of the drug is being attempted and insisted upon wherever possible, and this policy of payment is being pressed forward and developed. Nevertheless it appears that it would be in the public interest to allocate larger sums for the purchase of these drugs.

Training of Native Attendants.

This has proceeded under considerable difficulties at Mulago during the past year. Frequent changes of medical officer staff at Mulago have been imperatively necessary so that no continuity of teaching has been possible, and the demand for native staff for postings has been unceasing, over 90 attendants have been turned out during the year in various stages of training. Such a position is highly unsatisfactory. It is being arranged that Dr. Owen shall supervise and organize the training of the lower grade attendants at Mulago in addition to his duties in connection with the higher training of native medical assistants at Makerere. Every new sub-dispensary and each new labour camp opened means the posting of one or two attendants to each.

Conditions of Service for Native Attendants.

Considerable discontent exists amongst these employees regarding the conditions of service which are by no means uniform. Different conditions are apt to obtain at different stations and when a transfer takes place, as so frequently occurs, marked

anomalies in pay and conditions appear. With a view to adjusting this situation new regulations have been framed and will shortly be introduced. Considerable expansion of votes on the Native Establishment sub-heads will be necessary if present development is to be maintained and the posting of a native medical attendant to each labour camp is to be arranged.

Organization of Native Hospitals.

With a view to bringing all hospitals into line with the newer and better equipped ones new regulations have been issued to establish a fixed number of properly equipped beds for each main hospital and to lay down scales of equipment, establishment and duties of native staff and scheme of internal organization.

Venereal Disease Measures.

(A) Table of Venereal Disease and Yaws.

	1923.			1924.
	General Returns.	Mulago Returns.	Total.	General and Mulago Returns.
Primary Syphilis	1,256	461	1,717	2,074
Secondary Syphilis	3,131	2,744	5,875	7,588
Tertiary and Latent Syphilis ...	4,542	4,237	8,779	18,161
Unclassified	188	—	188	—
Inherited	1,890	1,449	3,339	6,228
Total			19,898	34,051
Gonorrhoea	2,240	1,136	3,376	4,871
Yaws	3,376	—	3,376	7,377
Soft Sore	405	77	482	360
Total			7,234	12,608

The increase in the number of cases treated for Syphilis and Yaws is not in my opinion due to increased prevalence of these diseases but to sub-dispensary extension whereby many more patients are being brought within reach of treatment. It will be noticed that the chief factors in the increase lie in the tertiary and inherited cases which together show an increase of 12,271 cases. The majority of tertiary manifestations are cases of ulceration.

(B) Vital Statistics, Buganda.

The occurrence of the record of a natural increase of native population is of considerable interest. It is only very slight, but the change over from a loss of population of 624 last year to the gain of this year of 37, that is, a turnover of 661 lives in all, may augur well for the future. Actually it is the first report of natural increase of population ever made in Buganda Kingdom since the commencement of records.

(C) Bunyoro.

(1) *Table of New Cases and Attendances (all cases including Venereal Disease).*

In 1923 the total of new cases treated, including those treated at sub-dispensaries was 9,322; in 1924 the total of new cases treated was 19,025. The figures for re-attendances in Bunyoro for 1923 are not available. The re-attendances in 1924 reached a total of 102,968. This great increase in the attendance of sick was largely due to the opening up of sub-dispensaries and the re-organization of Hoima district hospital which was referred to in last year's report.

(2) *Vital Statistics, Bunyoro.*

These continue to be a source of considerable anxiety. The excess of deaths over births for 1924 is 970, *i.e.*, 114 more than the corresponding figure for 1923. This situation is without a parallel in any other part of the Protectorate. I feel confident, however, that the adjustment of the situation will be found by continuing the development of facilities of treatment on the lines on which we have embarked. It appears strongly advisable to press for a fuller and free distribution of salvarsan substitutes in this district particularly.

Mulago Hospital.

The comparative table in the Annual Report of this institution shows clearly the expansion and development of the work of this hospital. The attendances are roughly double those of the preceding year.

In addition to the actual attendances dealt with, 93 attendants have been trained and posted out and the Mulago staff have extended medical supervision over a large number of labour camps in the Mulago district.

The output of the Mulago laboratory is remarkedly good, roughly 2,500 c.c. of vaccines have been prepared and 1,000 tests of serum carried out monthly.

Any review of native medical work in Uganda would be incomplete without a special reference to the invaluable service to the general health and welfare of the native population which is being rendered by the Maternity Schools and rural Lying-in and Infant Welfare Centres under the able direction of Dr. Albert R. Cook, C.M.G., O.B.E. and Mrs. Cook, M.B.E., and the Rev. Mother Kevin, M.B.E.

Recommendations.

(A) Increase in votes for:—

(1) Native Establiahment.

(2) Medical Stores, especially salvarsan substitutes.

G. J. KEANE, MAJOR,
D.P.M.O. (Native Services).

APPENDIX No. IV.

Annual Report, Mulago, 1924.

By Dr. J. P. Mitchell, O.B.E., M.D., Acting S. M. O. Mulago.

Vital Statiatics of Buganda Kingdom.—

Total population	783,482
Total still-births	992
Total living births	14,914
Birth rate per 1,000	19·02
Infantile mortality rates per 1,000	179·4
Death rate per 1,000	18·97

	Mulago Hospital	*Sub-Dispensaries*
Total attendances	99,948	306,811
Total new cases	8,376	31,287
Total number of in-patients	2,876	728
Average daily number of in-patients	197	30
Total in-patient days treatment	72,131	102,244
Total in-patient deaths	212	17

Staff.—

European.—	Medical Officers—average	4 to 6
	Sisters	2 to 4
	Superintendent	1
	Laboratory Assistant	1
Asiatic.—	Clerk	1
	Dispenser	1
Native.—	Male—average	20 staff
	Male—average	70 learners
	Female—average	10 staff
	Female—average	10 learners
Native Sanitation	Sweepers—average	20

In-patient Accommodation.—

Permanent beds	185
Temporary beds	24
Isolation cubicles	16

Buildings.—

The following buildings started in 1923 were completed:—

Drug store	1
Mortuary and P. M. room	1
Paraffin store	1
Underground 12,000 gallon tank	1

The following buildings started in 1924 were completed:—

European Nursing Sisters' quarters	1
Cubicle ward, 16 compartments	1
Maternity and Gynaecological wards—beds 22 ...	1

The following were started in 1924 but were not completed by the end of the year:—

Underground tank, 30,000 gallons	1

Sub-Dispensaries.—

In addition to the established dispensaries at Mukono, Mbale, Wakiso, Kasangati and Mityana, dispensaries were opened up at:—

Kampala Prison, in February; Bombo, in January; Luzira Prison, in October; Bowa, in November.

At Nakifuma owing to labour difficulties building was suspended, but it is hoped that this dispensary will be opened soon. Arrangements have been made for the opening up of the Mubende District, where five dispensaries are being established, and of the Bulemezi District at Kalagala.

Equipment.—Supplies of instruments and general hospital equipment arrived in large quantities during the year, enhancing in every way the work of the hospital.

Laundry.—Two hand machines and other laundry equipment have been installed. This copes with about 200 articles of clothing per day. Laundry work will increase considerably with the opening of the pack store and the issue of hospital clothing, both of which have been delayed on account of the shortage of water.

Disinfection is carried out in sack disinfectors, and these are, for the time being, sufficient, but it is desirable that a thresh or other more permanent type of disinfector be acquired.

Lighting.—Paraffin lamps only are available. They are most unsatisfactory in the hands of natives. The installation of electric lighting is most desirable and would be a great economy.

Water.—All through the dry season there has been a serious shortage of water. With the increase in general, as compared with venereal, work in the wards and with the advent of Sisters who are accustomed to ample supplies the lack of water has been keenly felt. The new tank under construction will greatly relieve the situation, but any further addition to beds must be accompanied by the erection of suitable tanks.

Kitchen.—During the year cooking arrangements have not been satisfactory. Green wood, faulty chimneys, cramped space and the increase in the demands made upon the cooks were responsible. The chimneys have been reconstructed and are acting well; better wood supplies have been arranged for and a mess room has been put at the disposal of peelers and cooks for the handling and distribution of the food. Over 340 tons of green food have been cooked in addition to the preparation of milk, rice, beef tea, soup, etc.

Conservancy.—About twenty sweepers are employed. The situation and type of incinerators are unsatisfactory and improvements are under consideration.

Out-patients.—During the months of February and March the attendance was at its height, averaging about 2,400 per week. There has been a steady fall during the year to about 1,600 per week. The opening up of additional dispensaries has greatly relieved the stress of work in the out-patient department at Mulago, which is now becoming the centre for the reception of the more serious general and venereal diseases. It is satisfactory to note that the fall in attendances at Mulago has been accompanied by a rapid rise in the total attendances throughout the area, a rise from 6,000 per week in January to about 7,700 per week in December. In the Annual Report for 1923 Dr. Webb gave a comprehensive analysis of the main venereal diseases, their treatment and the results. It will be impossible this year on account of the stress of the work to make a survey of the cards, by which method only can an accurate estimate of the value of the campaign be arrived at. Throughout the year the scheme of treatment and recording has remained as in 1923, and the steady increase in the total attendances is evidence of the value and the popularity of the venereal campaign.

Comparative Table, Mulago and Centres.

	1921	1922	1923	1924
Total Sub-dispensaries	1	4	5	9
1. New Cases	3,418	5,346	8,327	39,663
2. Attendances	36,011	113,158	241,091	406,759
3. In-patients	415	1,174	2,585	3,604
4. Aggregate I.P. days	11,961	43,841	49,125	82,375
5. Operations	31	169	549	1,152
6. Serum Tests	2,508	3,159	5,763	11,569
7. Other Lab. Tests	384	62	1,518	3,436

Total Attendances at Mulago only by Sexes.

	Male	Female	Total
Primary Syphilis	3,456	818	4,274
Secondary Syphilis	5,375	4,588	9,963
Tertiary Syphilis	16,878	14,040	30,918
Congenital Syphilis	3,517	3,423	6,940
Gonorrhoea	18,305	1,448	20,253
Soft Sores	513	157	670
Yaws, other Venereal Diseases and Observations	6,379	2,571	9,450
Non-venereal Diseases	12,378	4,832	17,480
Grand Total			99,948

DR. H. B. OWEN'S REPORT ON THE EYE CLINIC FOR 1924.

The clinic is open on Wednesday mornings, and operations are performed on Saturday mornings.

619 new cases presented themselves, the total attendances aggregating 2,053.

The following table shows the incidence of the different conditions noted. It must be remembered that following the primary condition other structures frequently become secondarily involved. The primary condition only is noted in the table below :—

A. External to the Eye.—

Contusion		4	
Orbital Cellulitis		4	

B. Of the Eye itself.—

(1) *Lids.—*

Hordeoleum	2	
Chalazion	2	
Oedema	5	(possibly a manifestation of angioneurotic oedema).
Trichiasis	3	(not associated with trachoma).

(2) *Lacrymal apparatus.—*

Dacryocystitis	8	

(3) *Conjunctiva.—*

Conjunctivitis—Simple ...	156	
do Phlyctenular ...	8	
do Gonococcal ...	6	
Trachoma	221	

(4) *Cornea.—*

Foreign bodies	6	
Corneal injuries	2	
Pterygium	9	(very common, but only noted when complained of).
Corneal ulcers and results thereof	31	
Interstitial Keratitis	4	
Keratitis profunda	1	

(5) *Sclera.—*

Episcleral cysts	1	

(6)	*Iris, ciliary body and uvea.*—		
	Iritis and Cyclitis	43	(grouped together because the two conditions frequently co-exist).
	Chronic uveitis	1	
(7)	*Lens.*—		
	Cataract, Senile	5	
	do Secondary	2	(cases included only where the cataract over-shadows the primary condition).
(8)	*Choroid and Retina.*—		
	Choroiditis	4	
	Neuro retinitis	1	
(9)	*Vitreous.*—		
	Synchisis scintillans	1	
(10)	*Optic Nerve.*—		
	Primary optic atrophy ...	1	
	Secondary optic atrophy ...	2	
(11)	*Glaucoma*	4	
(12)	*All structures.*—		
	Panophthalmitis	4	
(13)	*Undiagnosed*	20	
(14)	*No disease observed*	26	
(15)	*Diseases other than those of the eye* ...	8	

Remarks.—

Trachoma is far the commonest of all diseases, over one-third of the cases, *viz.*, 221 suffered from this complaint which is frequently the cause of badly impaired vision and blindness. It is interesting to note that some authorities state that the African rarely suffers from trachoma. My experience is that it is exceedingly common.

Interstitial Keratitis is certainly rare, four cases only being noted. Bearing in mind its common association with congenital syphilis, the rarity of this condition amongst patients, many of whom are attracted to the hospital on account of its venereal reputation, is very striking.

Of other diseases, which if not common in Europe, frequently come to notice in an out-patient department, the following observations may be of interest :—

Senile Cataract.—Five cases only were noted. Common in most hot countries, here it seems to be rare, though its apparent rarity must be accepted with caution as the reason may well be that transport facilities prevent senile patients coming to hospital.

Glaucoma.—Four cases only were seen.

Primary Optic Atrophy.—One case only observed. The rarity of this condition is to be expected as it is commonly associated with parasyphilitic conditions which as far as I know are almost unknown in this country.

Secondary Optic Atrophy.—Two cases noted.

Refractive Errors.—24 cases observed, spectacles being ordered in eleven cases.

Little refraction work is done, with the number of patients attending, time does not permit a search for refractive errors except in those cases who complain that faulty vision interferes with clerical work. With the spread of education this side of the work will assume more importance.

Operative Work.—38 operations were performed, the majority being on the lids for the relief of entropion resulting from Trachoma.

Three cataract extractions were performed and two cases trephined for glaucoma.

Fear, ignorance and apathy prevent many natives submitting to operation.

The inception of an eye clinic at Mulago has been abundantly justified. There undoubtedly exists much preventable eye disease, chiefly Trachoma, causing blindness and defective vision. The clinic of course can only touch the fringe of the affected population, but in time trained assistants will be able to carry the work further afield.

H. B. OWEN.

In-patients at Mulago.—

1.	Patients in wards January 1st, 1924	149
2.	Patients admitted during the year	2,876
3.	Number remaining December 31st, 1924	154
4.	Aggregate number of in-patient days	72,131
5.	Average number daily in wards	197·1
6.	Died in wards	206

The high incidence in the death rate is notable. It is due largely to the fact that many cases arrive almost moribund, having been carried for days long distances suffering from serious conditions.

Of the admissions, venereal cases predominated during the first half of the year, being about 60%. In the second half of the year general diseases predominated, rising to approximately 60%.

Deaths:—

VENEREAL DISEASE :—			
Tertiary Syphilis	...	...	22
Congenital Syphilis	...	..	2
Extravasation of Urine	post gonorrhoel	...	2
Stricture ...	post gonorrhoel	...	3
NON-VENEREAL DISEASE	...	...	177

Operations under General or Local Anaesthetics.—

Scraping of ulcers, etc.	...	...	324
Incisions and drainage	..	...	176
Circumcisions	...	...	94
Wheelhouse operations	...	...	75
Minor operations—various	...	...	72
Dilatations of strictures	...	...	66
Skin grafting	...	...	58
Sequestrotomy	...	...	40
For Onychia	...	....	27
For Entropion	...	....	23
For hernia (Radical cure)	...	....	23
Curettage	...	....	11
For tumours of nose	...	....	2
do eye	...	....	4
do scalp	...	....	3
do penis	...	....	1
do spermatic cord	...	....	2
Removal of Lipomata	...	....	2
do Fibromata	...	....	1
do Bursa	...	....	2
Excision of eye	...	....	7
Laparaotomy for Volvulus	...	....	1
do Peritonitis	...	....	2
do Tumours	...	....	3
do Colecystitis	...	....	3
For strangulated hernia	...	....	8
Ovariotomy	...	....	1
Compound fractures	...	....	9
Salpingectomy	...	....	6
Hysterectomy	...	....	6
Perineorrhaphy	...	....	4
Lumbar puncture	...	....	6
Supra pubic cystotomy	...	....	6
For Vesico Vaginal Fistula	...	....	5
Resections of bone	...	....	7
Craniotomy	...	....	1
For Cataract	...	....	4
For Haemorrhoids	...	....	5
For Hydrocele	..	....	4
Paracentasis	...	....	5
Mastoids	...	....	3
Tendon suture	...	....	1
For cranial abscess	...	....	2
Colotomy	...	....	2
For Dislocated Jaw	...	....	1
Appendicitis	...	....	1

The total operations for the year was 1,152. This was a great increase on the surgical work done in the previous year and there has been a decided improvement in every branch of surgical work. A certain amount of major surgery has been attempted, but much has to be accomplished before success in major work can be hoped for. Here, more than elsewhere, the need of Nursing Sisters is most felt. A theatre Sister and a night Sister are essential.

Staff.—

The staff of Medical Officers has varied from three to eight throughout the year. With two exceptions, namely, Dr. Webb and Dr. Mitchell, who were at Mulago continuously for about ten months, the medical staff has been constantly changed from month to month.

This arises from the policy of sending all Medical Officers on return from leave or on new appointment to Mulago for a term of two or three months to become familiar with the routine and methods of administration.

The Nursing Sister staff has been increased from two to four. This addition has resulted in a great improvement in the care of the patients and in ward administration.

The following are the approximate numbers of native staff:—

Male attendants, average	20
Learners, average	80
Female attendants, average	10
Clerks and writers	14
Sweepers	20
Cooks' establishment	20
Drivers—Ambulance	2
Porters	50

It has not been possible to adhere to any definite course of training on account of the constantly changing staff. Every endeavour is made, however, by courses of lectures and demonstrations combined with laboratory and ward teaching to bring the attendants in six to eight months up to the standard of dressers who are capable of rendering first-aid and taking subordinate medical charge of labour gangs throughout the Province.

During this year 93 medical attendants, either trained or partially trained, have been sent out to take charge of centres, charge of labour camps, or have been posted to other provinces.

Maternity and Child Welfare.—

With the opening of a maternity ward and the setting apart of a day weekly in the women's out-patients department for child welfare a great advance has been made.

This department is, as one would expect, popular among the native mothers and much good work is being done. During the year at Mulago 112 pregnant syphilitic women were treated.

Of these—

41 bore live babies which were alive at the end of the year.
8 bore live babies which were dead before the end of the year.
2 had still-born babies.
1 had a miscarriage.
59 had not borne their babies before the end of the year.
1 failed to report.

Infantile Mortality Returns for Buganda Kingdom for 1924.—

Population	No. born	Died in 1st year	Birth Rate per 1,000 of population.	Infantile Mortality per 1,000 born
783,482	15,110	2,712	19·02	179·4

The death rate per 1,000 babies born last year was 226·9.

Laboratory.—

The following is the record of work done in the Laboratory at Mulago during the year:—

Serum tests for syphilis ..	..	..	...	...	11,569
Microscopic examinations of Blood ...			...	...	2,267
do	do	Faeces	...	...	742
do	do	Urine	...	...	121
do	do	Sputum	...	...	154
do	do	Dark Ground	...	...	142
do	do	C. S. F.	....	....	10
Preparation of Autoginous Vaccines			...	...	ccs. 375
do	Detoxicated Gonococcus Vaccines			...	ccs. 2,205
Miscellaneous Investigations		...	...	...	429
Widal Tests ...	...	...	...	...	40
Blood Cultures	..	...	...	...	7
Cultures for isolation of Gonococcus			...	...	35
do	do	Pneumococcus	...	..	6
do	do	Dysentery	...	...	4
Cultures for Veterinary Department			...	...	5

J. P. MITCHELL,
Acting Senior Medical Officer.

APPENDIX No. V.

Report by the Senior Medical Officer i/c Sleeping Sickness for 1924.

I. General Statement.

(*a*) January, February, and most of March were occupied by a tour of Gulu District. Sundry circumstances combined to keep me in Entebbe until May, when a research was undertaken in Central Kavirondo which lasted for six weeks, followed by a brief visit to certain parts of the Lake area.

In July Buvuma Island and neighbouring settlements were examined with the District Commissioner. In September Lake Albert was thoroughly examined, and in October a visit was paid to part of the Busoga coast with the Forestry Officer, who wished to exploit the timber.

Parts of November and December were spent in the Eastern Province, when the Siroko Valley area was examined and opportunity taken to discuss with the engineer-in-charge the clearings necessary to protect the railway across the Mpologoma.

(*b*) During the year much work has been done on the "Instructions" which, under the Sleeping Sickness Rules, are a combination of Departmental Instructions for the guidance of officers and of rules to be observed "by all persons within or near the infected area."

This dual function, and the adjustment of differences of opinion between officials concerned, makes it a laborious process to achieve a satisfactory result. It was felt that the first attempts were capable of improvement in the light of experience and that the old Instructions for a complete province should be replaced by separate Instructions for each infected area.

It is hoped that the revised Instructions will be issued early in 1925.

(*c*) Generally speaking, it may be said that Sleeping Sickness is under control, but that much remains to be done in the Northern Province, where a Medical Officer for Sleeping Sickness duty alone is required. This appointment was sanctioned in May, 1922, but the officer appointed (Dr. Rawson) was posted to Arua in December of that year. During 1924 there was no Medical Officer at Gulu or Kitgum.

The necessity for a Medical Officer for the Northern Province entirely for Sleeping Sickness was again brought forward during the year, but approval for this has not yet been obtained. Dr. Griffin has been appointed to the Lake Area, and will be concerned with the examination of fishermen and inspection of the reclaimed areas and landing places. Owing to the impossibility of adequate inspection there is no doubt that hitherto many persons have evaded the fishing regulations and that there are settlements in conditions which cannot be permitted to continue. Dr. Griffin is expected to take up his duties at the commencement of April, 1925.

II. Treatment.

A supply of *Bayer 205* (300 grams) was received and distributed to Mbale (for 10 cases), Arua (15), and Fort Portal (5). A report from Arua dated July was very favourable but sufficient time has not yet elapsed.

Dr. Rawson wrote that " the natives are much impressed by this treatment, and if the drug was available in large quantities there would be no difficulty in getting them in for treatment."

Reports have not been received from Mbale.

The District Medical Officer, Fort Portal, reported on nine cases as follows :—

(1) *Bayer 205* is immensely superior to any drug previously tried.

(2) It caused Trypanosomes to disappear from the blood in 24 hours in severest cases.

(3) It cannot yet be considered to be a cure for *late* cases though definitely ameliorating the patient's condition.

Dr. Louise Pearce kindly sent 1,000 grams of *Tryparsamide* which was received in October, 250 grams (for five cases) were sent to the District Medical Officers at Fort Portal and Arua, and a supply will be sent to the District Medical Officer at Gulu as soon as one is appointed.

Treatment with Tryparsamide.

There was no Medical Officer at Arua until November. The District Medical Officer, Fort Portal, treated six cases, three of which were under observation for over three months.

Unfortunately the lumbar puncture necessary for observation of progress resulted in five of the patients leaving hospital after three injections of *Tryparsamide*. Each case had improved remarkably and seemed completely free from the disease ; the clinical impression was that *Tryparsamide* is equal if not superior to *Bayer 205*. The scheme of treatment with *Atoxyl* outlined in my report for 1923 has not been possible, as it was considered inadvisable to detail natives for such work when there was no Medical Officer to supervise them.

III. The Outlook for Uganda.

The increased movement of labour is liable to result in spreading Sleeping Sickness, particularly in the case of recruits from Gulu and Chua Districts. Efforts have been made to restrain movements within and to and from these districts, but such efforts are fruitless when the demands for labour are so insistent. There is, moreover, a large exodus of workers for private individuals in Buganda and elsewhere, as the Baganda employ natives of other parts to grow cotton for them ; there are no means of controlling this. Unless an elaborate organisation for the complete control of *all* labour is set up by Government so that no man could work anywhere for others unless under supervision after medical examination it is quite impossible to check movements of individuals engaged by private persons, and therefore illogical to attempt to prevent recruiting on an organised basis by Government.

It seems inevitable that sooner or later an infected native from the Northern Province will come into contact with *palpalis* on Lake Victoria, and it is therefore of the utmost importance everywhere and especially in the uninfected Lake area that clearings be adequately maintained for the protection of the general population, and that extreme care be taken by patrolling Lake Victoria that no fisherman escapes the biennial medical examination so that no infected person comes into contact with fly at places where there are no clearings.

So far as is known *Glossina morsitans* is still uninfected with human Trypanosomes.

IV. The Position in Each Infected Area.

(*a*) *The Victoria Nyanza Area.*

During the year His Excellency the Governor decided that " as Reclamation is done there is no further need of a Reclamation Officer. The duties of control of the repopulated areas pass automatically to the Administration."

The District Commissioner, Entebbe, has therefore been appointed officer-in-charge of the Victoria Nyanza area with a strengthened staff. I had hoped to make a complete tour of the area with him in November and December, but it was impossible to hire a steamer and the motor boat was under repair. A steamer with room for at least three officers and their staff to sleep on board is indispensable for adequate supervision of this area, and it is hoped that one will be obtained without delay for the use of Dr. Griffin and the District Officer who will be continually employed on the Lake. New Instructions for this area have been prepared.

The whole situation on the Lake requires close examination; there is no doubt that restrictions have been relaxed to the limit of safety, and while no cases of Sleeping Sickness have yet been detected among the repatriated inhabitants it must be expected that infection will be introduced from other parts of Uganda or from Kavirondo.

The former possibility has been dealt with in Section III, and Kavirondo is discussed below.

During July I examined Buvuma and Kome Islands with the District Commissioner and representations were made to the chiefs that if the people desired to remain in certain places to which they had gone the Lukiko would have to spend considerable sums of money on clearings. The coast of the mainland, and Sese, have not yet been examined, and it may be necessary to move certain small settlements on the grounds that the cost of making them safe is disproportionate. The great desire of natives to return to the places where their ancestors died leads to isolated small settlements unable to protect themselves by their own efforts.

Dr. Griffin's constant work on the Lake will clarify the situation which has become somewhat complicated. The only new area that has been opened during the year is a small part of Bunya County, east of Jinja, for forestry purposes. During May and June I investigated conditions on the coast of Central Kavirondo and closely examined 100 miles of the mainland, and Mageta Island. The research was proposed by Mr. W. F. Fiske, who suggested that valuable information could be obtained in a country where natives, unrestrained by regulations, were living as they pleased in contact with *palpalis*. The full report on this research will be found in the *Bulletin of the Imperial Bureau of Entomology* for November, 1924. Suffice it to say here that it seems that contact between a population of over 40 per square mile with *palpalis* in numbers represented by a catch of over 15 males per boy per hour conduces to Sleeping Sickness. If either figure alone is over that standard it seems that no harm results. (*See* chart attached).

Although Sleeping Sickness is at present quiescent in Kavirondo it is yet a constant danger to Uganda. Fishermen from Kavirondo constantly make use of Uganda waters and probably bring fish to Jinja which, it may be assumed, have been caught not far away. I have seen a canoe between Buvuma and the mainland which my men assured me had come from Kavirondo.

There is every argument on behalf of Uganda for the adoption by Kenya of some system of control of fishermen similar to that in Uganda, or else of their control by Uganda. Unless this is done there is every probability that infection will spread from Kavirondo to Buvuma and thence to other islands. It is not anticipated that an epidemic will result. Infection will probably first show itself among fishermen. The division of all the waters of the Lake in Uganda into separate fishing areas, for one of which only a fisherman is licensed, will enable the spread of infection from any area in which it is discovered to be checked by withdrawal of all fishing permits for that area. It is thus evident that very great care must be paid to the biennial issue of licences for fishing which can only be obtained after medical examination, and to ensure that the landings and watering places used by the general population, who are not examined, are kept fly free.

(*b*) *The Victoria Nile—Jinja—Kakindu Area.*

It has not been possible to visit this area during the year. The Instructions require revising but this cannot be done until the area, which was partially re-opened in 1923, has been re-examined. It is hoped that Dr. Griffin will be able to supervise this area, so closely linked with the Lake Area.

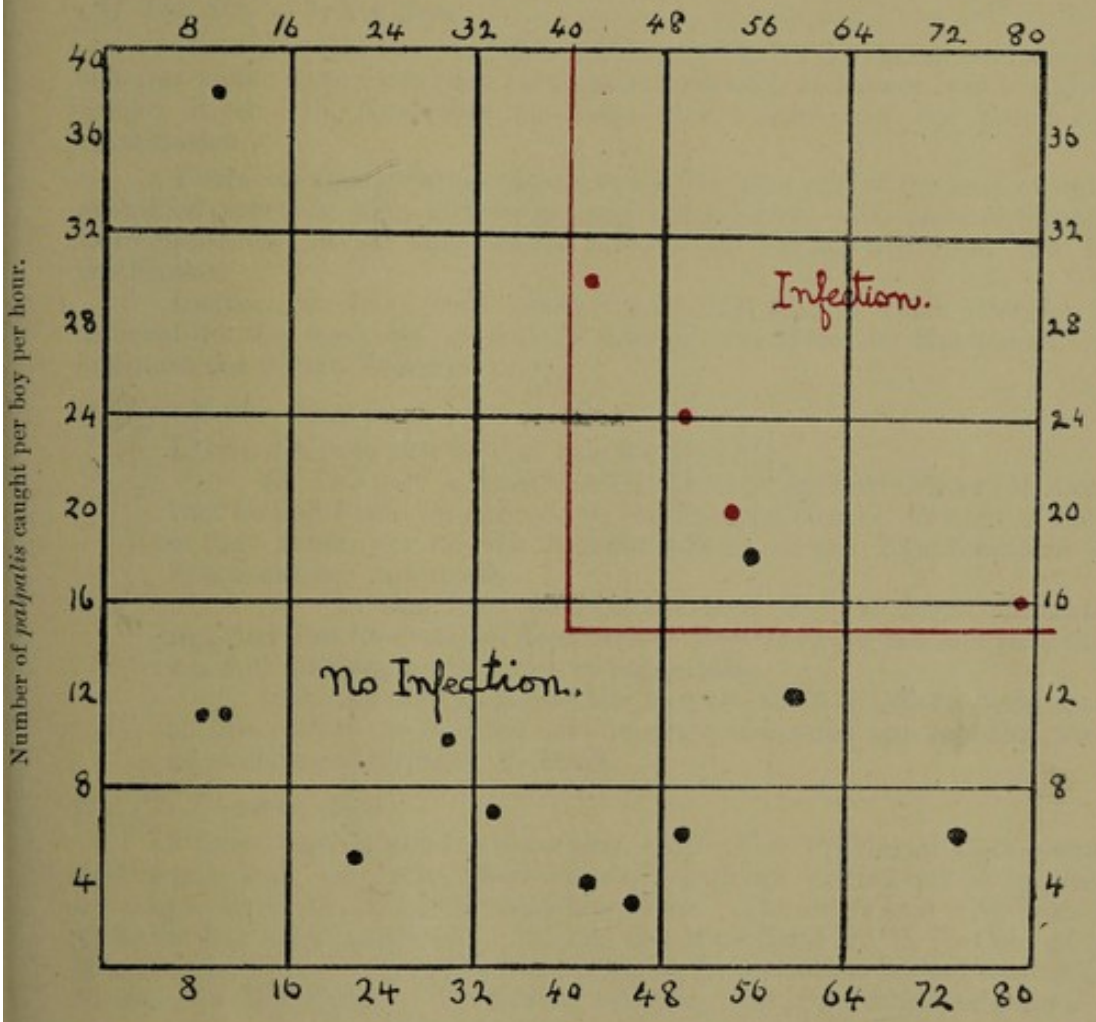
(*c*) *The Mpologoma Area.*

A complete tour of this area has not been possible, but in December the situation was discussed with the District Commissioners at Mbale and Tororo and with

Mr. O'Connor, the Inspector who has continued to do excellent work in watching the health of the people near the swamp. The following figures given by him show that the disease is quiescent :—

	Budama District.	Bugweri District.	Pallisa District.
Number of examinations up to September 30th, 1924 ...	7,364	2,241	429
No. of cases proved by the D.M.O.	9	1	0
Number of deaths	3	1	0

Density of Population per Square Mile.



Sleeping Sickness results from broad contact between Population of density over 40 per square mile and *G. palpalis* at rate of more than 15 per boy per hour.—G.D.H.C.

Bugungu	157	165	567	379	3
Kaiso	4	4	12	12	—
Tonya	28	19	28	39	—
Buhuka	15	19	14	22	—
	204	207	621	452	3
		1,280			

It will be noted that three cases were discovered in Bugungu; they were all immigrants from the neighbourhood of the infected Waki River near Butiaba (*q.v.*); after the opening of Bugungu some of the immigrants, doubtless already infected, died there. In the absence of *palpalis* along the Bugungu coast the infection is unlikely to spread and will die out.

At *Butiaba*, which lies outside the Bunyoro infected area but close to the Waki River area, the state of affairs is much improved. The people who formerly lived at the foot of the escarpment between the main road and the river, and surreptitiously visited the latter, which is infested with *palpalis* along its course, moved back to Bugungu when that was re-opened. The cultivations at the mouth of the river have also been given up. No cases of Sleeping Sickness were found among the Marine employees nor among 36 men, 42 women, and 28 children living in Butiaba township.

At *Kibiro*, which is also outside the Bunyoro area, there are 55 taxpayers. I examined 64 men, 150 women, 82 children, and found two men infected. As there are no *palpalis* in the vicinity it is probable that these men had contracted infection when walking to Butiaba along the coast where the mouth of the Waki has to be crossed; the bush has grown up since the cultivations ceased.

(*h*) *The Nile Infected Area.*

(*i*) It has not been possible this year to tour the part of this large area in the *West Nile District*. Returns to the District Commissioner by chiefs persistently give no deaths from Sleeping Sickness, but it it doubtful if this represents the true state of affairs. The following quotations, however, from Dr. Rawson when District Medical Officer, Arua, suggests that the disease may be negligible:—

> "Judging from my last visit in June, 1922, there is little Sleeping Sickness, and this would appear to be of a chronic type. One case diagnosed in 1921 is still flourishing although he has a few typical large glands."

No visits to this area have been possible since 1922. The people are very afraid of gland-puncture and until a Medical Officer is appointed who can work regularly in the Sleeping Sickness area and obtain their confidence no progress can be made.

Thus the Assistant District Commissioner *i/c* Alur sub-district reported in 1922:—

> "I think it is very evident that there is a very widespread fear amongst these people against examination and treatment, which these spasmodic visits by Medical Officers tend to increase."

(*ii*) *The Gulu District.*—The Acholi, East Madi and West Madi areas were thoroughly examined in January and February.

(*a*) *The Acholi Area.*

The same reluctance to come up for examination was experienced as in the West Nile District. In certain parts it was decided to move the population away from contact with *palpalis*. Mr. Maitland Warne, District Commissioner, Gulu, who has shown great energy in attacking Sleeping Sickness, has now moved the population from the dangerously fly-infected parts of the Acholi area and the following quotation from an extract from his annual report kindly sent me is apposite:—"There seems reason to hope that practically all the deaths which have occurred in 1924 were due to infection which had been contracted before the movements took place and that the disease will now actually die out in the Acholi area provided that the people do not wander too far away from the ridges on which their villages are now situated." The table given below shows that the deaths reported from the Acholi area show a steady decline.

At Patiko 3·12 per cent of 64 children examined were found to be infected and 0·4 per cent of 246 men. At Pagak 298 men gave a percentage of 0·67 infected, but none of 70 children were found infected. Clearings in the Acholi Area did not come up to the standard laid down in Instructions and many watering places were found which were not cleared at all. It is hoped that the appointment of an extra Administrative Officer for Sleeping Sickness duties in Gulu District, recommended by the conference at the Secretariat in April, but not yet made, will ensure supervision of this most vital work upon which alone at present depends the control of the disease. The District Commissioner, Gulu, has strongly urged the need of a European Inspector to supervise the work of the natives, as the chiefs are too apathetic to see that the clearings are adequately made and maintained.

(*b*) *East and West Madi Areas.*

The number of people attending for examination was much smaller than in 1921, but so far as they go the figures are encouraging. In East Madi 66 per cent, in West Madi 87 per cent of the men were seen, and it is evident from the following table that the incidence of the disease has diminished ; in East Madi from 94 to 76 per 10,000 and in West Madi from 65 to 16 per 10,000 :—

	East Madi		West Madi	
	Examinations.	Cases.	Examinations.	Cases.
1921 ...	6,540	61	14,723	96
1924 ...	2,626	20	8,624	14

More satisfactory still is the relatively greater reduction at the worst centres of infection :—

	East Madi.		West Madi.	
	Palaro.	Zaipi.	Amua	Moyo.
Percentage of examinees infected in 1921	2·2	0·07	0·67	1·09
Percentage of examinees infected in 1924	1·35	0·37	0·06	0·23

It is interesting to note that in Madi, where conditions seem to be improved, no children were found infected this year. In 1921, 1·1 per cent of children examined in East Madi were infected, and 0·9 per cent in West Madi. (*Cp.* these figures with those given for the Acholi Area).

It is certain that had the work of the English Inspector who was discharged in 1923 for breach of game regulations been available in the Acholi Area the good results from clearing under his supervision in the Madi areas would have shown themselves elsewhere.

As regards the *morbidity* of the disease in the Gulu District. The history of every person found to be infected in 1921 was followed up :—

	No. of cases	Dead.	Morbidity Percentage.	Not seen.	Alive and well.	Sick.
East Madi	121	86	71	14	17	4
West Madi	118	72	61	10	35	1

The morbidity of the disease in Madi is therefore high ; no treatment has been possible during the year. The District Commissioner, Gulu (Mr. G. L. Maitland Warne) in response to my request, has most kindly obtained returns from chiefs shewing the death rate from Sleeping Sickness in the infected parts of Gulu District. Figures derived from these are given below :—

	Acholi Area for the Quarter ending				Madi Area for the Quarter ending			
	March.	June.	Sept.	Dec.	March.	June.	Sept.	Dec.
Deaths from S. S.	35	31	34	26	9	13	14	26
Deaths from all other diseases	138	127	157	238	133	172	183	181
Total death rate per 1,000	5·2	4·8	7·1	10·0	5·4	7·0	7·5	7·9
Death rate from S. S. per 1,000	1·3	1·2	1·2	0·98	0·3	0·5	0·5	0·98
Percentage proportion of deaths from S. S. to total deaths	20·2	19·6	17·2	9·4	6·3	7·0	7·1	8·6

During the year there had been 126 deaths from Sleeping Sickness in the Acholi area out of a population of about 26,300, and in the Madi area 62 deaths out of a population of 26,335.

The above table shows that in Madi the number of deaths from Sleeping Sickness has steadily increased during the year ; this fact should be considered in conjunction with the somewhat optimistic conclusion given above, and drawn from the apparently diminished incidence of the disease. Possibly some of the deaths were from an infection contracted a considerable time ago. Mr. Maitland Warne, however, reported at the end of the year that in his opinion the disease is increasing in the Madi area, and that this is attributable to diminished European supervison, as there was no District Officer in the Madi area, and the Inspector had been withdrawn.

(iii) Chua District.

I made a complete tour of the infected part of this district in February; this is that part of the district N.W. of the main road from Gulu to Kitgum and west of a line drawn north from Kitgum. In my report for 1922 I pointed out that the only cases of Sleeping Sickness in Chua were on the Chua—Gulu border, and it was strongly urged that very thorough clearing of all crossings and watering places was vital if the onset of the disease were to be checked. Unfortunately the administrative staff was insufficient to supervise the work and clearings were not adequately done. In February this year I found that infection has spread further along the Gulu—Kitgum road and an infected woman was found at the river Anyoka only ten miles from Kitgum. As she had never been away from her home the disease must have been locally acquired. It is almost inevitable that the infection will spread to the Pager River which flows through Kitgum and is infested with *palpalis*.

The N.W. corner of the district where streams are fly-infested is almost certain to become infected. A boy was seen there with Sleeping Sickness, on a visit from Gulu. While every effort should be made to restrain such movements it has been pointed out in Section III how hopeless it is. Preventive clearing therefore is of supreme importance and it is hoped that the extra Administrative Officer recommended for Chua by the Conference in April will soon be available to attend to this work.

(I) *The Busitema Area.*

The population has been evacuated from the dangerous part of the area and the boundaries have been re-cut. The area has not been visited this year.

G. D. HALE CARPENTER,
Senior Medical Officer i/c Sleeping Sickness.

APPENDIX No. VI.

Annual Report of Government Dental Surgeon.

Sir,

I have the honour to submit to you my Annual Report for 1924 :—

The following tables will give the number of officials treated, and the work done :—

(i)	Appointments	982
	Officials treated	281
(ii)	The following conditions were treated :—	
	Caries Simplex	604
	Extractions	217
	Pulpitis	63
	Abscess	37
	Odontalgia	12
	Periodontitis	51
	Erosion	47
	Gingivitis	22
	Stomatitis	3
(iii)	Conservation work :—	
	Cement and Synthetic Porcelain	194
	Ag. Amalgam	396
	Per. Gutta Percha	27
	Temp. Gutta Percha with dressings	180
	Scaling and Cleaning	224
	Silver Nitrate applications	61
(iv)	Prosthetic work :—	
	Dentures	39
	Repairs to Dentures	62
	Crowns	34

(v) The following stations beyond Kampala and Entebbe were visited :—
Jinja 5 visits; Masaka 2 visits; Mbarara, Kabale, Mubende, Fort Portal, Mbale, Soroti, Lira, Gulu, each 1 visit.

I have the honour to be,
Sir,
Your obedient servant,

G. STANLEY BATEMAN,
Government Dental Surgeon.

THE HON'BLE,
THE PRINCIPAL MEDICAL OFFICER,
UGANDA.

INDEX.