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Contributors

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COLONY OF THE GAMBIA.



**THE ANNUAL
MEDICAL AND SANITARY REPORT**

FOR THE YEAR 1924.

*[Allan (K.B.)
= (Senior M.D.)]*

PRICE 5/-

**PUBLISHED BY THE CROWN AGENTS FOR THE COLONIES,
4 MILLBANK, LONDON, S.W.1.**

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G

Gambia 4610/1

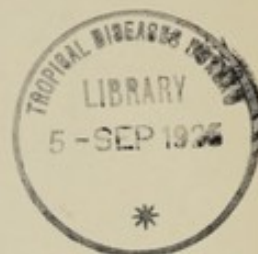
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23, Endsleigh Gardens.
N.W.1

*With the Compliments of the
Crown Agents for the Colonies.*

The Medical & Sanitary Report of the
Gambia 1924

4, MILLBANK,
WESTMINSTER,
LONDON, S.W.1.
July 1925

COLONY OF THE GAMBIA.



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COLONY OF THE GAMBIA

THE ANNUAL

MEDICAL AND SANITARY REPORT

FOR THE YEAR 1934

PRICE 5/-

PUBLISHED BY THE GOVERNMENT OF THE GAMBIA

MEDICAL REPORT.

April 24th, 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 Bathurst, Gambia, for the year 1924, together with the Returns, &c., appended thereto.

I have the honour to be,

Sir,

Your obedient servant,

K. B. ALLAN,

Senior Medical Officer.

THE HONOURABLE,

THE COLONIAL SECRETARY.

MEDICAL REPORT.

April 24th, 1902.

Sir,

I have the honor to acknowledge the receipt of your letter of the 19th inst. in relation to the report of the Committee on the Health and Sanitary Condition of the District of Columbia, for the year 1901, together with the report of the Board of Health.

I have the honor to be,

Sir,

Very respectfully,

W. H. ALLEN,

Chief of Bureau.

The Honorable,

The Congressional Secretary.

ANNUAL MEDICAL AND SANITARY REPORT

FOR

1924.

I. ADMINISTRATIVE.

(a) STAFF.

I. MEDICAL.

Dr. J. M. W. Pollard, Senior Medical Officer, transferred from Nigeria 11th April, arrived in Colony and took charge of Medical Department from 22nd April. Proceeded on leave 22nd September.

Dr. K. B. Allan, Medical Officer, acted Senior Medical Officer from 1st January until 14th April. Proceeded on leave 14th April. Returned to the Colony and resumed duty 31st October. Acted Senior Medical Officer from 1st November until 31st December.

Dr. R. H. Miller, Medical Officer. Stationed at Georgetown from 15th May until 29th July. Acted Senior Medical Officer from 14th April to 22nd April. Proceeded on leave 23rd May. Transferred to Nigeria 8th October.

Dr. G. E. Craig, Medical Officer, resumed duty from leave on 4th April. Acted Senior Medical Officer from 20th September until 31st October.

Dr. J. C. Cruickshank, Medical Officer. Stationed at Georgetown from 1st January until 23rd June. Proceeded on leave 20th October.

Dr. A. M. W. Rae, Medical Officer. Appointed 26th July, arrived in the Colony and assumed duty 8th August. Transferred to Georgetown 24th September.

II. NURSING.

Miss M. Thompson, Senior Nursing Sister. Returned to the Colony from leave and resumed duty 4th April.

Miss C. G. Leggat, Nursing Sister. Acted Senior Nursing Sister from 1st January until 3rd April. Proceeded on leave 31st March. Transferred to the Gold Coast Colony 17th September.

Miss P. Stagg, Nursing Sister. Proceeded on leave 5th December.

Miss J. Roberts, Nursing Sister. Transferred from the Gold Coast Colony and appointed on 25th October. Arrived in the Colony and assumed duty 6th November.

III. SANITARY.

Dr. F. A. Innes, Medical Officer of Health. Proceeded on leave 14th April. Returned to the Colony and resumed duty 23rd October.

Mr. C. Wolfendale, Sanitary Inspector.

Mr. A. F. V. Vaughan, Assistant Sanitary Inspector. Returned from leave and resumed duty 23rd May.

(b) FINANCIAL.

MEDICAL DEPARTMENT.

	Estimated.				Actual.			
	£				£ s. d.			
Total Revenue	350	348	6	2
Total Expenditure	14,866	12,323	5	11

PUBLIC HEALTH DEPARTMENT.

	Estimated.				Actual.			
	£				£ s. d.			
Total Revenue	1,180	1,251	12	0
Total Expenditure	9,668	8,847	14	7

II. PUBLIC HEALTH.

(a) GENERAL REMARKS.

(1) *General Diseases.*

Prevalent Surgical Diseases are Conjunctivitis, Ulcers, Abscesses and Injuries, while amongst Medical Diseases Bronchitis, Diarrhoea and Constipation are the most common.

During the cold weather in the Harmattan season, diseases of the chest are more prone to occur.

(2) *Communicable Diseases.*

1. *Mosquito or Insect borne.*—(1) Malaria, 2,073 out-patients, 69 in-patients treated; (2) Blackwater Fever, 5 cases, 2 deaths; (3) Yellow Fever, no cases reported; (4) Relapsing Fever, an outbreak occurred in the Protectorate.

2. *Infectious or Epidemic.*—(1) Influenza: An epidemic occurred October and November similar to the one in 1923; 32 in-patients and 343 out-patients were treated; (2) Measles, which chiefly affected children, occurred between July and December, 175 cases treated at the Hospital; (3) Pneumonia, 53 cases treated at the Hospital, most prevalent during the cold season, January to March and December; (4) Plague, no cases occurred; (5) Small-pox, 3 cases; (6) Venereal Diseases are well known to be extremely common in Bathurst but few of the natives avail themselves of Hospital treatment.

3. *Helminthic.*—Ascariasis is still the most commonly occurring helminthic disease; 1,709 cases were treated in the out-patients, this shows a great increase on last year and it is encouraging that more people are coming for treatment.

Tetanus showed an increase of 5 cases compared with last year. A European Nursing Sister in connection with the Child Welfare Scheme has been approved and arrives early in 1925.

(b) EUROPEAN OFFICIAL.

General Remarks.

The general health was not quite so good as last year; there was an increase of 17 on sick list, due to the outbreak of Influenza.

There was one death due to Blackwater.

TABLE SHOWING THE SICK, INVALIDING, AND DEATH RATES OF
EUROPEAN OFFICIALS.

	1922.	1923.	1924.
Total number of officials resident	63	65	66
Average number resident	48	45	42
Total number on sick list	68	51	68
Total number of days on sick list	387	319	422
Average daily number on sick list	1.22	0.87	1.15
Percentage of sick to average number resident ...	141.66	113.33	161.90
Average number of days on sick list for each patient	5.47	6.25	6.20
Average sick time to each resident	8.06	7.08	10.04
Total number invalided	2	2	2
Percentage of invalidings to total residents ...	3.17	3.07	3.06
Total deaths	—	1	1
Percentage of deaths to total residents	—	1.53	1.51
Percentage of deaths to average number resident ...	—	2.22	2.31
Number of cases of sickness contracted away from residence	—	—	—

The cause of the death was Blackwater Fever.

The cause of the two invalidings were—1 Appendicitis, 1 Influenza.

(c) AFRICAN OFFICIALS.

The health of the African Officials remains much about the same as last year.

There were two deaths—one due to Malaria and one to Dysentery.

TABLE SHOWING THE SICK, INVALIDING, AND DEATH RATES OF
AFRICAN OFFICIALS.

	1922.	1923.	1924.
Total number of officials resident	192	203	228
Average number resident	177	181	203
Total number on sick list	270	533	531
Total number of days on sick list	1,096	2,070	2,144
Average daily number on sick list	3.1	5.67	5.85
Percentage of sick to average number resident ...	152.54	294.47	261.08
Average number of days on sick list for each patient	4.16	3.88	4.03
Average sick time to each resident	6.19	11.43	10.56
Total number invalided	2	2	—
Percentage of invalidings to total residents ...	1.04	.98	—
Total deaths	5	1	2
Percentage of deaths to total residents	2.60	.49	.87
Percentage of deaths to average number resident ...	2.82	.53	1.47
Number of cases of sickness contracted away from residence	—	—	—

The causes of the two deaths were—1 Malaria, 1 Dysentery.

(d) GENERAL EUROPEAN POPULATION.

This is as follows:—

	Males.	Females.
Government Officials	54	14
Residents... ..	2	21
Employees of Trading Firms	118	—
Missionaries	4	5
Total	178	40

Grand total, 218.

(e) GENERAL AFRICAN POPULATION.

In a population of 9,741 there were 291 births, a birth rate of 30·90 per 1,000, and 513 deaths, a death rate of 52·66 per 1,000.

There being an increase in both birth and death rates compared with 1923.

There were 51 still births and 137 deaths of infants up to one year of age.

Percentage of infants and children under 5 years in total death—49·1 per cent.

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES OF EUROPEAN NON-OFFICIALS.

How employed.	Number.	Deaths.	Invalided.	Death rate per cent.	Invaliding rate per cent.
1923.					
Merchants	115	3	1	2·60	·87
Other occupations	17	—	—	—	—
Missionaries	13	—	—	—	—
Total	145	3	1	2·06	·62
1924.					
Merchants	128	1	2	·78	1·56
Other occupations	4	1	—	·25	—
Missionaries	14	—	1	—	7·14
Total	146	2	3	1·36	2·05

Cause of Deaths of Europeans, Non-Official.—Cardiac Disease, 2.

Cause of Invaliding of Europeans, Non-Official.—Pyorrhœa, 1; Anæmia and Conjunctivitis, 1; Black Water Fever, 1.

NUMBER OF DEATHS AND DEATH-RATE PER THOUSAND OF THE POPULATION FOR THE PAST TEN YEARS IN THE COLONY.

Years.	Estimated Population.	Total Deaths.	Death-rate per 1,000.	Remarks.
1915	13,157	296	22·49	Bathurst only. Do. Do. (Influenza Epi- Bathurst only. [demic.) Do. Do. Do. Do. Do. Do.
1916	7,700	306	39·74	
1917	8,474	262	30·09	
1918	8,474	662	77·08	
1919	8,474	299	35·28	
1920	8,474	419	45·43	
1921	*9,227 (census)	399	42·59	
1922	9,395	437	46·62	
1923	9,567	412	43·06	
1924	9,741	513	52·66	

* Europeans, 265. Africans, etc., 8,962 = 9,227.

INFANTILE MORTALITY FOR THE PAST TEN YEARS IN THE COLONY.

Years.	Total Births.	Deaths over 1 year and under 5 years.	Deaths over 1 week and under 1 year.	Deaths over 1 day and under 1 week.	Deaths under 24 hours.	Still Births.	Remarks.
1915	279	40	58	18	1	30	Bathurst only. Do. Do. Do. Do. Do. Do. Do. Do. Do.
1916	314	46	61	10	9	22	
1917	337	22	59	9	—	30	
1918	263	89	121	17	—	30	
1919	234	30	63	18	4	39	
1920	249	59	82	13	5	41	
1921	284	60	60	25	6	52	
1922	295	56	102	12	9	50	
1923	255	35	92	21	4	52	
1924	291	115	137	28	1	57	

The birth rate 1924, 30·90 per 1,000.

COMPARATIVE STATEMENT OF BIRTHS AND DEATHS FOR THE PAST TEN
YEARS IN THE COLONY.

Years.	Births.	Deaths.	Births in Excess.	Deaths in Excess.	Remarks.
1915	279	296	—	17	
1916	314	306	8	—	Bathurst only.
1917	337	362	—	25	Do.
1918	263	662	—	399	Do. (Influenza Epidemic).
1919	234	299	—	65	Bathurst only.
1920	249	413	—	164	Do.
1921	284	399	—	115	Do.
1922	295	437	—	142	Do.
1923	255	412	—	157	Do.
1924	291	513	—	222	Do.

Death rate 1924, 52·66 per 1,000.

Registration compulsory and reliable.

III. SANITATION.

Smallpox.—During 1924 one case occurred in Bathurst in February, one in May, and two in June. One proved fatal.

Some improved accommodation has been provided at the Infectious Diseases Hospital.

Plague.—No case of Plague has been notified in any part of the Colony, and nothing occurred to necessitate opening the Plague Control Station at Barra.

Throughout the year rat campaigning was carried on in Bathurst. A "rat week" was announced in May, but only 272 rats were then brought to the Public Health Office and paid for at 2*d.* each. At the rate of 1*d.* each 14,728 rats were paid for during the year; and 2,284 others were reported by our yard cleansing gangs. For 1923 the total number reported was 1,992, of which 138 were paid for. Rat infestation of all "premises" is now compulsorily notifiable.

Varieties of domestic rodents are numerous: the majority examined have been *Mus rattus*. No suspicion of rat infection by Plague has been encountered so far.

Relapsing Fever.—An outbreak of disease in villages of North Bank Province in July necessitated investigation, and Dr. Cruickshank was able to add spirochaetosis to our local nosology by finding *S. duttoni* in the sick. The diagnosis was confirmed by Professor Blacklock. The cases were confined to Kachang and Nokunda in July and August: 43 deaths took place.

In November 200 deaths at Nokunda were reported to the Travelling Commissioner. House to house enquiry elicited, however, that by the end of December as many as 615 deaths had taken place, including those of a sharp recrudescence of disease in December.

Some 685 deaths therefore have occurred out of 2,790 people living in three villages between June and December.

It is possible that some other disease than relapsing fever may have been at work coincidentally in the long series between June and December; if not, the incidence of the epidemic has been most severe, and the case mortality very high—about one-fourth of the affected population having died.

The question of the "carrier" in this epidemic is still open. Its discovery may enable us to direct any available preventive measures intelligently, whether *Ixodidae*, *Cimicidae*, or *Pediculidae* be responsible. It would be interesting to know if any similar epidemics have been experienced in French Senegal, two of our stricken towns being less than three miles from the Anglo-French boundary.

Measles.—An epidemic of measles occurred in Bathurst during the period July to December, and 29 deaths of children under 5 years of age occurred.

Diarrhœa.—During the same period 57 children under 5 years of age died of epidemic diarrhœa. This has seriously affected the total death rate. The prevalence of both measles and diarrhœa coincided exactly with the minimum daily range of temperature, and, doubtless, maximum humidity. Flies were noted as being numerous in early August and in September. There was also again considerable rain flooding with damage to property as well as to health. The low-lying parts of the town, which are the poorest, of course, suffer badly.

Beriberi.—In town two fatal cases of beriberi occurred, and no doubt poverty and restriction of diet would account for these.

It is interesting to find that no case of it was recorded in the Prison during 1924. When it is remembered that between 1921 and 1923 beriberi showed an incidence of 17.33 per cent. among the prisoners, with a case mortality of 5.03 per cent., and that since their dietary was corrected in April, 1923, not a single case has occurred, it is justifiable to claim that the "nutritional theory" completely explains our local "prison cedema," and to hope that a continuation of proper diet will enable us to report year by year the continued absence of this disease.

Tuberculosis.—19 adults, 15 male and 4 female, died of phthisis pulmonalis, and 4 of other forms of tuberculosis during 1924. It is reasonable to suspect, however, that tuberculosis is a not infrequent accessory cause of death, though not so specified, amongst 40 fatalities from "pneumonia," 2 from "broncho pneumonia," 3 "ulceration of intestines," 2 "cerebral abscess," 3 "peritonitis," 11 "diarrhœa," and more than nine other "suppurative" conditions.

The actual morbidity rate cannot be determined from our death certificates and records.

In the nine years 1911 to 1919, 80 deaths were returned from tuberculosis; that is an average of 9 per annum, at an average dying age of 33 years. But, in the quinquennium ending 1924, a hundred deaths are recorded; that is an average of 20 per annum, at an average dying age of 31 years—both facts being of ominous import.

The rate of death from tuberculosis in 1924 was 4.5 per cent. of all deaths (quinquennium average 4.6 per cent.); while between 1911 and 1919 the deaths from tubercular disease were only 2.6 per cent. of all deaths.

Anyhow, the simple fact presented in these figures is that in the last five years our tuberculosis death rate has become double what it was during the nine previous years—a sufficiently disquieting situation.

With reference to occupation, the victims of tubercular disease within the past fourteen years include: labourers 15, clerks 11, traders 10, school children 9, laundresses 9, masons 7, carpenters 7, seamstresses 5, sailors 5, servants (domestic) 5, soldiers 4, blacksmiths 3, shopkeepers (might be included in traders) 3, cooks 3, painters 3, tailors 3, engineers 2, housewives 2, and one each of the following: fisherman, watch repairer, messenger, goldsmith, police constable, butcher, shepherd, fireman, pensioner, and prisoner.

The type is acute, as indicated by the average duration of illness, viz., 3.1 months in 73 patients.

Now the "sow"-man (milk-seller) here is as rare as a white crow. We never find tuberculosis at the slaughter house. Poverty (largely due to improvidence), venereal disease and alcoholism certainly are not wanting; but present housing conditions (including sites) also favour an increased morbidity, and no doubt attempted reform in these matters will be opposed by superstition and customs. Investigation of these housing conditions, together with the relation of local occupations to tubercular incidence, may serve to indicate what preventive and repressive action could be hopefully set a-going. This study will be undertaken.

Sanitary measures.—It has not been possible to arrive at any decision about disposal of nightsoil. Unless the sand-pumping apparatus in 1925 provides hope of disposal by a proper sewage system, then we seem still faced with a choice between dumping in the river from steam-towed barges and incineration, with the chances perhaps in favour of the former, as fuel would prove very costly.

Bakehouses.—The Bread Ordinance has supplied the basis for some needed improvements in the conditions of bread baking. Many alterations on baking premises have been required, and sanitary interests have been further promoted by regulating sale shops, stalls, etc. Three convictions for breach of the Ordinance were obtained in Court.

For financial reasons we are still without a sanitary isolation station, market and slaughter-house improvements, and better water supply. These are of crucial importance.

Sand filling operations at the Cemetery just outside the town have provided a large extent of valuable new burying ground, and have obliterated mosquito breeding places which were long our despair. As much work again, however, is needed to conserve and complete our gains in these matters.

Sanitation at Cape St. Mary has been effected by weekly visits of the Assistant Sanitary Inspector, and has included routine inspection of the villages and control of mosquito breeding by stocking open waters with fish. The frequent absence on duty of the Travelling Commissioner, however, has prevented us from prosecuting cases of offence and our distance from Bathurst also proves disadvantageous to our full and efficient control.

Vital Statistics.—The general death rate in the estimated population is 52.66 for 1924. This has been exceeded in the past twenty years only by the rate for 1918, the year of pandemic influenza, which was 77.08.

The birth rate is 30.90. Excess of deaths over births reaches 222.

Still births number 19.55 per hundred registered live births, or to put it another way, every sixth birth is a still birth.

The infant mortality rate is now 471, as against 498 in 1923.

Thirty infants died of tetanus, 28 of them under the age of one month. This disease accounts for 21.9 per cent. of all infant deaths, an entirely preventable loss.

Owing to the epidemic prevalence of measles and diarrhoea, infants and children under five years contributed no less than 49.1 per cent. of the total deaths. Our figures for 1924, therefore, make a rather grim record. True it is that the birth rate has improved from 26.65 to 30.90, the average for the quinquennium being 28.81. True also that the infant mortality rate has dropped from 498 to 471. And to complete this rather delicate triad of hope-inspiring facts we have a still birth rate of 195 instead of 204!

Study of infant mortality has unearthed one remarkable and unexpected fact, which is that the well known ill effect of illegitimacy on infant welfare seems in Bathurst to be entirely reversed. The illegitimate infant mortality rate for 1923 was 325 as contrasted with a legitimate infant mortality rate of 590!

The explanation is manifold, but lies wholly in the peculiarities of the life and customs of the people, which, though capable of effecting an *apparent* mitigation of calamity, are yet in reality sordid to a degree socially unjustifiable, and immoral to boot.

Lectures and School Instruction.—The annual course of public lectures on Hygiene was given in 1924 by the Senior Medical Officer himself. The results of the examination at its close show that of 29 candidates 7 passed and 2 papers were cancelled.

The December School Examination gave a pass list in Hygiene of 9 Juniors out of 24, but not one of 4 Seniors passed. It is clear from the work of the classes as exhibited in the examinations that teachers are guilty of incorrect and careless teaching of this important and interesting subject. Measures have been adopted which should remedy this, and future lecture courses may probably be framed with special reference to the needs of teachers.

FRANK A. INNES,
M.O.H.

ANNUAL SANITARY REPORT FOR THE PROTECTORATE AND GEORGETOWN, 1924.

1. *Staff*.—Two sanitary gangs exist at present, one at Georgetown, consisting of six labourers who perform the scavenging and trenching work under the supervision of the Dispenser, who acts as Sanitary Inspector, and one at Kuntaur, consisting of seven men, one of whom acts as Supervisor.

In Georgetown in addition there are—

- (a) Market Caretaker ; and
- (b) The Lamplighter.

2. *General*.—Georgetown is clean, and this is largely due to intelligent co-operation between the trading firms, the native householders and the sanitary staff.

Kunta-ur and to a lesser extent Kau-ur are by no means in so satisfactory a state. Two things are in great measure responsible for this—

(1) The impossibility of adequate supervision as exists in Georgetown.

(2) The enormous variation in the population, especially in Kunta-ur. The presence of three or four groundnut steamers means a great increase in total population and the question of adequate sewage disposal is thus a very difficult one.

The proposal that the general cleanliness of Kunta-ur be put into the hands of the Chief should be a material help.

The routine Public Health work consists of—

(i.) *Anti-Mosquito Measures*.—In Georgetown regular inspection and investigation is carried out. The filling in of breeding places is constantly being done, but the presence of so much swamp land at the back of the town is a bigger problem. Much more so is this the case in the other riverine towns. Kunta-ur and Kau-ur are set in the midst of swamps, and only large engineering schemes will ever free these places of mosquitoes.

In Georgetown the *Aedes Argentens* is prevalent during the day—to a greater extent than in the other wharf towns.

(ii.) *Smallpox*.—Vaccination is constantly being done throughout the Protectorate. This seems to be the one disease the seriousness of which is appreciated by the natives. Isolation is performed at once before the Medical Officer is sent for. There is one point that is omitted, namely, the proper care of the eyes, and much blindness results from this.

(iii.) *Water Supply*.—In the bush villages the water supply is from wells. Inspection of these has revealed that in most cases they are well constructed—with raised mouths and sloping banks, but these banks are not impermeable, and surface contamination must be frequent.

In the wharf towns the water used by Europeans is rain water stored in tanks ; the natives use the river water—a matter of serious moment, especially when steamers are present, because of the amount of refuse. Luckily the Gambia is a tidal river for a great distance.

(iv.) *Refuse Disposal*.—In Georgetown there are now four mud incinerators—all in good repair. All refuse from house or street is burned there by the sanitary gang. This part of the work is very satisfactorily performed.

(v.) *Sewage Disposal*.—In Georgetown this is satisfactorily done. Latrines on the earth and pail system are used in the European houses. In the Official quarters removal is done by prison labour and sewage buried outside the town.

The native population use cesspits in the yards—these were found to be satisfactory on the whole, but repeated inspection is necessary.

In Kunta-ur there are two public latrines on the earth and pail system each surrounded by krinting. These are very unsatisfactory, and the fact that they are to be replaced is of good omen. The mud incinerator requires attention.

As was stated above, Kunta-ur in the trading season presents a problem difficult of solution. The steamer labourers make use of any part of the town except the latrine accommodation provided—but which is inadequate for such numbers—and any attempt at eradication of hookworm disease must be null and void while such a state of things exists.

Of the other river towns it may be said that they have not reached to the standard of Georgetown, but are much better than Kunta-ur.

(vi.) *Meat Inspection and Market Accommodation*.—Markets exist in the larger wharf towns, and are kept moderately clean. Meat safes exist, but forgetfulness as to shutting of doors takes away much of their benefit.

The meat is inspected daily in Georgetown by the Dispenser, who also acts as Inspector of Nuisances.

(vii.) *Street Lighting in Georgetown*.—This is satisfactory. Street lamps now exist on the new road leading from the market to the Wireless bungalow.

3. Meteorological Report for 1924 (attached).

4. Sanitary Report for Prison (attached).

METEOROLOGICAL REPORT FOR GEORGETOWN, 1924.

Month.	Temperature.		Range.	Mean.	Rainfall.	Wind.
	Maximum.	Minimum.				
	* F.	* F.	* F.	* F.	Inches.	
January ...	97	56	41	76.5	0.62	Variable.
February ...	106	58	48	82.0	—	North.
March ...	109	65	44	87.0	—	"
April ...	110	70	40	90.0	—	"
May ...	109	71	38	90.0	1.31	"
June ...	108	71	37	89.9	10.44	"
July ...	93	73	20	83.0	12.14	North East.
August ...	93	73	20	83.0	10.24	North.
September...	93	72	21	82.5	11.45	"
October ...	96	71	25	83.5	0.81	"
November ...	98	66	32	82.0	—	"
December ...	96	54	42	75.0	—	"
Average ...	99.8	66.6	34	83.7		

Highest temperature of the year ... 110° F.

Lowest " " " " " 54° F.

Rainfall for Year ... 47.01

Prevailing Wind ... North.

(Signed) WILSON RAE,
M.O.

ANNUAL SANITARY REPORT ON GEORGETOWN GAOL, 1924.

Whenever possible daily inspection of the prison by the Medical Officer is made.

The sanitary conditions are very good indeed.

Latrines.—There is one latrine on the pail and earth system, the excreta being buried daily. The supervision of this latrine is constant—one prisoner on light duty being detailed daily.

Diet.—This consists of rice, pap and meat. A sufficiency of vegetable is now obtainable. A meat safe has been placed in the prison.

Water supply.—The water used in the prison is obtained daily from the river.

ACCOMMODATION.

No. of cells = 8 (including prison infirmary).

Dimension of cell = 20 by 12 by 15 ft.

Cubic Capacity = 3,600 cub. ft.

No. of prisoners per cell = 5-8.

∴ Space per head = 720-450 cub. ft.

(Signed) H. WILSON RAE.

VACCINATIONS.

No. Vaccinated.	Successful.	Not seen.	Failed.
1,223	92	1,131	Not known.

IV. METEOROLOGY.

See Tables for Bathurst and Georgetown.

V. HOSPITALS AND DISPENSARIES.

(a) VICTORIA HOSPITAL, BATHURST.

1. Hospital Buildings entirely repainted and several minor repairs done.
2. A changing room for African Nurses erected.
3. Quarters for Nursing Sister's servants built.

(b) GEORGETOWN, MACCARTHY ISLAND.

VI. SCIENTIFIC.

1. In August Dr. J. C. Cruickshank, Medical Officer, proceeded to the North Bank Province to investigate an outbreak of a disease which he diagnosed clinically as Relapsing Fever, this being subsequently proved by the finding of Dutton's Spirochaete in blood films that were sent to the Sir Alfred Jones Research Institute, Freetown.

2. Dr. A. M. W. Rae, Medical Officer, has been carrying out some interesting experiments investigating the diseases that the "Non-Sick" native is most prone to, particularly Helminthic Diseases and their treatment by Carbon Tetrachloride. The Helminthic diseases formed 82 per cent. and were present as follows:—

Ankylostomiasis ...	...	...	60 per cent.
Ascariasis ...	...	...	20 "
Tæniasis ...	...	...	30 "

Very few cases of Bilhanyiasis were detected.

3. A European Officer was found on leave, in the United Kingdom, to be infected with Trypanosomiasis.

4. *Entomology*.—The following specimens were identified—

Gambia River Kackang Creek—19	Tetse-Flies— <i>Glossina</i>	<i>Palpalis</i>	R. D.	18
			<i>Morsitans</i>	West 1
	1	Tabinid Fly— <i>Tabanus</i>	<i>ditæniatus</i>	Macq. 1
Bathurst—Government House—	<i>Culen</i>	<i>duttoni</i>	Theo.	
" " "	"	<i>Fatigans</i>	Wied.	
" " "	"	<i>Tigripes</i>	Gip.	
" No. 1 District—	<i>Ædes</i>	<i>ægypti</i>	Faber.	
" " "	"	<i>sugens</i>	wied.	
" " "	<i>Culen</i>	<i>duttoni</i>	Theo.	
Cape St. Mary Agricultural Bungalow—	<i>Culen</i>	<i>brigripes</i>	grip.	
" " "	<i>Culiciomyia</i>	<i>nebrilose</i>	Theo.	
" " "	<i>Anopheles</i>	<i>costalis</i>	Lw.	
" " "	<i>Mansomioides</i>	<i>uniformis</i>	Theo.	
" " Wireless Quarters—	<i>Anopheles</i>	<i>costalis</i>	Lw.	
" " W. A. F. F. Lines—	<i>Anopheles</i>	<i>costalis</i>	Lw.	

REPORT ON BATHURST PRISON FOR 1924.

The prisoners, daily average 102, have now all been transferred to No. 2 on the Cape Road.

Health.—Four hundred and fifty-five out patients have been attended to during the year, of these forty-two were admitted to the Prison Infirmary. Eight deaths occurred, four being due to judicial hanging.

Diet.—Native rice is now used exclusively and with beef, fish and the vegetables from the prison garden furnishes a good and sufficient dietary.

Sanitation.—A concrete drain replaces a mud one through the compound.

Six tanks connected by ball valves to the mains have been installed—these ensure a sufficient supply of water at all times.

All the cells were fumigated three times to destroy bugs.

There were two campaigns against rats during the year.

(Signed) G. E. CRAIG,
Prison Medical Officer.

19.3.25.

ANNUAL MEDICAL REPORT FOR THE PROTECTORATE AND GEORGETOWN, 1924.

The Protectorate Medical Headquarters consist of the Hospital and Dispensary at Georgetown, MacCarthy Island.

1. *Staff*.—A Medical Officer has been stationed in the Protectorate from January to June and from September to December.

The remainder of the staff consists of :—

- (1) The Dispenser.
- (2) The cook, who is also attendant and dresser.
- (3) The market caretaker—who acts as hospital labourer.

2. *Financial*.—The revenue derived from the nominal charges made for treatment and drugs to such as were able to pay amounted to £4 19s. 9d.

3. *Health*.—Accurate data is obtainable only in Georgetown and must not be taken as exact indication of the health of the Protectorate generally.

(a) *GENERAL*.—No outbreaks of epidemic disease—apart from smallpox—have occurred and the general health has been good.

(b) EUROPEANS.—Two cases of serious illness occurred during the year. One of Blackwater fever and the other of Septicæmia. Both recovered. In other two cases the patients were invalided to England. Apart from these more serious cases, many Europeans have required treatment for influenza and malaria. In Kuntaur in December there was a mild epidemic of gastric influenza among the French population there. The nature of their work and the consequent inability to take proper exercise daily is the real cause of the indisposition.

(c) NATIVES.—(i.) Officials.—The total number of these in Georgetown is about twenty. The mass of treatment has been for minor ailments. One death took place among the police—cause of death, Coronary Athesema.

(ii.) General Population.—The conditions for which treatment was mainly applied were the following:—

(1) Digestive Disorders.—This class is and must remain the largest. Diet and general conditions of life are such as produce a sluggish alimentary system. Helminthic infection is also an important factor, and of this type Ankylostomes are of greater moment than the sum of all the other helminths.

(2) Respiratory Diseases.—Bronchitis is very common. Pneumonia when it occurs is more serious than in England. Resistive power to all forms of respiratory disease is very low. Pulmonary Tuberculosis will become a big problem.

(3) Rheumatism and Arthritis in all its forms are extremely prevalent, especially in the cold weather.

(4) Genito Urinary.—Post conceptive complications are by no means rare, and of late the numbers coming for attention for pathological conditions of uterus and appendages are very great.

(5) Venereal Diseases.—So prevalent as to be almost universal, and to this may be ascribed many of the skin, bone, eye and cardiac conditions seen.

(6) Tropical Ulcer and Septic conditions of hands and feet are very common, and it is regrettable that the natives exhibit so great callousness in their treatment. Leaves and filth make good incubation chambers for germs—so that chronicity is the rule.

(7) Skin Diseases.—Of these scabies and impetigo are common, as are also those conditions due to fungi. Mention of the part played by venereal disease has already been made.

(8) Malaria of chronic mild type is commonest.

A few cases of malignant malaria with cerebral symptoms are seen among young people.

(9) Trypanosomiasis.—Despite innumerable blood examinations, in no human case has the trypanosome been demonstrated. *Glossina palpalis* is the mosquito of the river; a few of the Morsitans group have been caught and examined on the ironstone ridges in MacCarthy Island Province.

(10) Small-pox.—This is epidemic in the Protectorate; during the year seven cases have occurred in Georgetown, with one death.

(11) Goitre is common, but diseases such as Leprosy and Elephantiasis are comparatively rare.

(12) Diseases of the Eye.—The numbers suffering from these are very great indeed. Native remedies seem excellent for transforming a conjunctivitis with pan-ophthalmitis.

The Hospital justifies its existence—the numbers of both in-patients and out-patients have greatly increased, and as the native loses his fear of hospital the zone of usefulness of this place will increase. An attempt has been made to travel as much as possible among the villages. This is very important, and the early appearance of the Medical Motor-Boat will make the medical work in the Protectorate of greater and greater importance.

Work is being done at present on the helminthic infections. A full report will be made to you at a later date, but even now we can say that Ankylostomiasis is widespread among the population—presenting another problem for our solution.

Vital Statistics.—Registration of births and deaths is carried out in Georgetown only. It is compulsory and reliable, being done through the headman to the dispenser, who acts as registrar.

GEORGETOWN.

	1922.	1923.	1924.
Births	33	28	32
Deaths	53	53	49

	Males.	Females.
Births	12	20

Hospital Returns.—The details list of out-patients diseases is attached. As the hospital was without a Medical Officer for some months and also during the periods of travelling, accurate diagnosis under each head is not attempted.

ANNUAL MEDICAL REPORT ON GEORGETOWN GAOL, 1924.

Sick parade for prisons takes place daily at 8 a.m. at the Hospital. Dressings are done at 11.0 a.m. There is one cell in the prison reserved as an Infirmary, with accommodation for four cases.

The general health of the prisoners has been good. Occasionally surgical cases have had to be admitted to Hospital for short periods.

Prevalent Diseases—

- I. Digestive—Diarrhoea (one case of amebic dysentery treated), Constipation.
- II. Helminthic Ankylostomiasis and Infection with Taeniae.
- III. Respiratory. Bronchitis is fairly common.
- IV. Rheumatism.
- V. Malaria.

There were three deaths during the year.

Causes of Death :—

1. Endocarditis.
2. Smallpox.
3. Pneumonia.

All prisoners are now vaccinated on day of admission.

(Signed) A. M. W. RAE,
Medical Officer.

RECOMMENDATIONS FOR 1924 IN THE 1923 REPORT—ACTION TAKEN.

(a) SANITARY.

1. A scheme for the suitable disposal of night soil for Bathurst. A Committee was formed to discuss this vexed question, but no satisfactory decision was arrived at. The two main suggestions were the use of barges, so that latrine buckets could be emptied and cleaned at a distance from the shore, where river currents would ensure that no night soil was washed back again on to the foreshore. Weather conditions and initial cost were the difficulties raised. The other suggestion was incineration, and again the cost of both outlay and upkeep and the difficulty in obtaining fuel appeared to render this method as unlikely to be successful.

2. A scheme for the filling in of low-lying land and pipe drainage of Bathurst.

Tenders for a dredger and pumping apparatus have been offered and it is hoped the work will be begun in 1925.

3. Sanitary Station.
4. Installation of a mechanical filter at Lamin.
5. Extension of Market.
6. New Slaughter House.

3—6, nothing done; all held up for financial reasons and are not likely to be considered until 1927.

7. Extension of Sanitation riverine trading centres in the Protectorate.

This is being done gradually and will be better supervised now that the Medical Officer has been provided with a Motor Launch, the "Princess Mary."

8. Public Pan Latrine, Wellington Street, erected.

(b) MEDICAL.

The installation of an electric bell system in the Victoria Hospital.

Not fully carried out as originally recommended.

2. Conversion of the Old Military Hospital into a European Hospital.
3. Provision of a garage at the Victoria Hospital. Nos. 2 and 3 not approved.
4. Improvements to European Nursing Sisters' Bungalow and to the Buckle Street Bungalow.

These have been carried out in regard to the former, were not approved for the latter.

An additional European Nursing Sister.

X. RECOMMENDATIONS FOR 1925.

(a) SANITARY.

1. Repetition of all the recommendations, 1 to 6 inclusive, made in the 1923 Report for 1924.

2. Voluntary leper segregation camps in the Protectorate in connection with important villages and the erection of a small Leper Hospital in Bathurst, possibly in connection with the Destitute Home, for very bad cases.

3. An investigation of tuberculosis in Bathurst. This is being gradually carried out by the Medical Officer of Health.

(b) MEDICAL.

1. Replacing the wooden floors in the latrine and in Nos. 3, 4 and 5 wards with concrete.

2. Construction of a new European Hospital separate entirely from the present building, as soon as funds are available.

3. Medical Store for Georgetown.

4. Dispenser's quarters, Cape St. Mary :—

Latrine and washhouse approved for 1925 and in process of being constructed.

5. A kitchen and a fence for the compound are required.

6. A permanent fence for the compound of No. 9 Buckle Street.

XI. PUBLIC WORKS DURING 1924.

1. Changing Room, Victoria Hospital, erected.
2. Servants' Quarters, Victoria Hospital, erected.
3. One Public Pan Latrine completed.

XII. PUBLIC WORKS ESTIMATES, 1924.

XX. PUBLIC WORKS RECURRENT.

					Estimate.	Actual Expenditure.		
					£	£	s.	d.
10.	Upkeep of Pump and Wells	...	...	...	20	5	0	1
16.	" " Cemeteries	...	...	...	50	8	5	8

XXI. EXTRAORDINARY EXPENDITURE.

					Estimate.	Actual Expenditure.		
					£	£	s.	d.
3.	Improvement of Latrines, Bathurst	...	...	...	500	41	7	8
4.	New Public Latrines, Bathurst	...	...	...	500	325	15	1
8.	Incinerator and Drying Shed, Kuntaur	...	...	...	300	—	—	—
13.	New Drainage System, Bathurst	...	...	...	4,000	98	18	0

XIII. PROTECTION OF OFFICIALS' QUARTERS AGAINST MOSQUITOES.

Screening.				No. of Household.	No. of Persons exposed.	Persons per Household.	No. of Persons attacked by Malaria in 1924.	Attack Rate per 100 in 1924.
Good	...	...	...	7	23	3.1	2	8.7
Fair	...	...	...	23	57	2.4	10	17.5
Poor	...	...	...	4	11	2.7	1	9.1
None	...	...	...	7	11	1.5	2	18.1

All the houses are of light construction and all the occupiers are tenants.

Total number of Quarters mosquito proofed	...	...	...	34
" " " not mosquito proofed	...	...	...	7
" " Persons occupying mosquito proofed quarters	...	...	...	91
" " " non mosquito proofed quarters	...	...	...	11
" " " attacked by malaria with mosquito proofed quarters	...	...	...	13
" " " attacked by malaria with non mosquito proofed quarters	...	...	...	2
Attack rate of persons occupying mosquito proofed quarters	...	...	...	14.2
" " " non mosquito proofed quarters...	...	...	...	18.1

XIV.

This report, with which I entirely agree, has been drawn up by Dr. K. B. Allan, who has acted as Senior Medical Officer for the greater part of the time since Dr. Mayer's retirement.

(Signed) J. POLLARD.

TABLE I.

RETURN OF STATISTICS OF POPULATION FOR THE YEAR.

	Europeans and Whites.	Africans.	East Indians.	Chinese and Malays.	Mixed and Coloured.	Totals.
Number of Inhabitants in 1924	—	—	—	—	—	9,741 (Estimated)
" " Births during the year 1924	—	—	—	—	—	291
" " Deaths " " " "	—	—	—	—	—	513 (less still births)
" " Immigrants " " "	—	—	—	—	—	(Not recorded)
" " Emigrants " " "	—	—	—	—	—	Do.
Number of Inhabitants in 1923	—	—	—	—	—	9,567 (Estimated)
Increase	—	—	—	—	—	174
Decrease	—	—	—	—	—	—

TABLE II.

SUMMARY OF ROUTINE SANITARY WORK DONE DURING THE YEAR
IN THE TOWN.

1. NAME OF TOWN.—BATHURST.

	Approximate Area.	Number of proclaimed Open Spaces.
1922	400 acres	None.
1923		
1924		

2. POPULATION.

	Number of Natives.		Number of Europeans.		Total.
	Males.	Females.	Males.	Females.	
1922	—	—	—	—	9,395 (Estimated)
1923	—	—	—	—	9,567 "
1924	—	—	—	—	9,741 "

3. HOUSING.

	Number occupied by Europeans.	Number occupied by Natives.
Number of Houses—		
1922	69	3,950
1923	73	3,986
1924	85	4,037
Number of Huts—		
1922	3,494 (included as houses)	—
1923		—
1924		—

4. MOSQUITO PROTECTION OF HOUSES.

	1922.	1923.	1924.
Number of European houses wholly mosquito-protected ...	1	1	1
Number of European houses with mosquito room ...	Off. 43	43	44
Number rendered during the year wholly mosquito-protected	—	—	—
Number rendered during the year partially mosquito-protected	—	—	1

5. ERECTION OF NEW BUILDINGS DURING THE YEAR.

	1922.	1923.	1924.
Number of public buildings erected with sanction as to site, construction, and relation to other buildings ...	1	6	14
Number of houses erected with sanction as to site, construction, and relation to other buildings ...	4	21	5
Number of huts erected with sanction as to site, construction, and relation to other buildings ...	24	—	{ 30 (approx.)
Number of houses built without sanction ...	—	—	—
Number of huts built without sanction ...	—	—	—

ACTION TAKEN.

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

6. MARKETS.

						Total number.	Number paved and drained.	Number unpaved.
1922	...	...	...	...	...	1	1	—
1923	...	...	...	...	...	1	1	—
1924	...	...	...	...	...	1	1	—

7. SLAUGHTER-HOUSES.

						Total number.	Number paved and drained.	Number unpaved.
1922	...	...	...	...	...	1	1	—
1923	...	...	...	...	...	1	1	—
1924	...	...	...	...	...	1	1	—

8. LATRINES.

	For Males.		For Females.	
	Number.	Number of seats.	Number.	Number of seats.
Number of Public Latrines :—				
1922	16	71	8	53
1923	11	64	10	61
1924	11	70	11	67
Number of new Public Latrines erected during the year :—				
1922	—	—	—	—
1923	—	—	—	—
1924	1	9	—	6
Number of Public Latrines repaired during the year :—				
1922	—	—	—	—
1923	—	—	—	—
1924	3	—	3	—
Number of Public Latrines demolished during the year :—				
1922	—	—	—	—
1923	—	—	—	—
1924	1	3	—	—

	1922.	1923.	1924.
Number of Private Latrines	190	323	233
Average number of pails of nightsoil removed daily ...	321	325	408
Average number of soiled pails removed and clean pails substituted	321	325	408
Number of nightsoil men employed to clean latrines and remove excreta	22	26	26
Number of cesspools	45	37	32
Number of cesspools cleansed	—	As required	—
Number of new cesspools constructed during the year ...	—	—	—
Number of old cesspools abolished	20	8	5
Number of cesspools oiled regularly by Department... ..	Included	in figures of	Section 16

9. REMOVAL OF REFUSE.

	1922.	1923.	1924.
Number of dustbins issued	97	64	93
Number of carts at work daily to remove refuse from streets ...	12	10	13
Amount of refuse removed daily	95	49	59
Number of carts at work daily to remove refuse from yards and premises	As a above		
Amount of refuse removed daily from yards and premises ...	As a above		
Number of men employed for moving refuse	38	32	40

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

	Daily average number of cartloads of refuse.			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	—	—	—	—	—	—	} All thrown into sea.		
Burnt	—	—	—	95	319	—			
Thrown into sea	273	325	329	—	—	—			
*Otherwise dealt with	—	—	—	In combustibles are thrown into sea.					

* State mode of disposal.

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

1922.	1923.	1924.
—	—	—

12. WATER SUPPLY.

Nature of Water Supply.	1922.	1923.	1924.
Pipe-borne water :—			
Source (river, lake, or spring) :—			
Number of linear yards	—	—	—
Number of stand-pipes along roads	37	58	63
Number of stand-pipes in compounds and houses ...	—	—	10
Wells :—			
Public :—			
Number	43	Cement sealed, unused.	
Number with pumps protected against surface water and mosquito-protected			
Private :—			
Number	—	204	128
Number protected against surface water and mosquito-protected	Fish stocked except 8 (variable).		
Tanks :—			
Public :—			
Number underground	Nil.	Nil.	Nil.
Number mosquito-protected and served by pumps ...			
Number above ground			
Number mosquito-protected			
Number of 400 gallons capacity or less			
Number above 400 gallons			

Nature of Water Supply.	1922.	1923.	1924.
Tanks :—			
Private :—			
Number underground	3	3	3
Number mosquito-protected			
Number above ground	166	184	221 (approx.)
Number mosquito-protected			
Number of 400 gallons capacity or less	4	4	8
Number above 400 gallons			
Nature of tanks :—			
Wood		Iron.	
Iron			
Concrete			
Barrels :—			
Number	No record.		
Number mosquito-protected	Fish stocked or covered.		

13. DRAINAGE.

Nature of Drainage.	Public.	Private.
Masonry drains :—		
Lineal yards of Masonry drains :—		
1922	1,000	—
1923	1,000 (approx.)	—
1924	1,000 (approx.)	—
Lineal yards reconstructed during the year :—		
1922	Nil	—
1923		
1924		
Lineal yards repaired during the year :—		
1922	Nil	—
1923	Nil	—
1924	30 yds. (approx.)	—
Lineal yards of new drains constructed during the year :—		
1922	Nil	—
1923		
1924		
Earth drains or ditches :—		
Number of linear yards of ditches cleaned :—		
1922	800	—
1923	750 (approx.)	—
1924	750 (approx.)	—
Number of linear yards of ditches dug and graded :—		
1922	550 (approx.)	—
1923	—	—
1924	2,000 (approx.)	—
Average frequency of clearing ditches of grass :—		
1922	Once in 2 weeks during rains.	—
1923		
1924		

14. CLEARANCE OF UNDERGROWTH, LONG GRASS AND JUNGLE.

	1922.	1923.	1924.
Number of square yards of weeds, grass, and vegetation cut and removed	2,500	2,500	3,000 (approx.)
Average frequency of clearance of rank vegetation on same area	Once a	month during rains.	

15. EXCAVATIONS AND LOW-LYING LAND.

	1922.	1923.	1924.
Number of pools and excavations	6	Numerous	Numerous
Number of excavations filled up		—	—
Amount of low-lying and marsh land raised and drained		Numerous	Numerous
Number of pools, marshes, streams, &c., fish-stocked... ..	—		
Number of cubic yards of material used for filling up pools and excavations	1,000	800 (approx.)	15,000
Number of persons fined for making new excavations	—	—	—
Average number of men daily employed in filling up pools, &c.	No special men.		

16. OILING.

	1922.	1923.	1924.
Number of oilings of drains	947	968	1,013
Number of oilings of pools and excavations			
Number of oilings of tanks and barrels			
Average number of men daily employed for oiling drains, pools and water tanks or barrels	1	14	14 (4 during rains)

17. INSPECTIONS AND PROSECUTIONS.

	1922.	1923.	1924.
Number of inspectors employed	7	7	7
Number of inspections of houses	53,408	51,771	53,004
Number of houses where larvæ were found	210	165	238
Number of notices served to remove conditions causing the breeding of larvæ	218	188	255
Number of persons fined for having mosquito larvæ on premises	210	155	223
Number of notices served to remove insanitary conditions on premises	442	593	288
Number of persons fined for not removing insanitary con- ditions after notice	1	—	2
Number of soda and aerated water factories inspected ...	1	—	—

TABLE III.

VICTORIA HOSPITAL, BATHURST.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1924.

Diseases.	*Remaining in Hospital at end of 1923.	Yearly Total.		†Total Cases Treated.	‡Remain- ing in Hospital at end of 1924.	Remarks.
		Admissions.	Deaths.			
INFECTIVE DISEASES.						
Beri-Beri	6	...	6	...	
Cerebro-Spinal Fever	
Chicken-Pox	
Cholera	
Dengue	
Diphtheria...	
Dysentery	19	4	19	...	
Endocarditis—infected	
Enteric	3	...	3	...	
Erysipelas	
Gonorrhœa	26	...	26	1	
Influenza	1	32	...	33	...	
Kala Azar...	
Leprosy—						
(a) Nodular	
(b) Anæsthetic	
Malaria—						
(a) Sub-tertian	69	2	69	...	
(b) Quartan	
(c) Aestivo-autumnal	
(d) Chronic Malaria	
(e) Black-water...	5	2	5	...	
Measles	4	...	4	...	
Malta Fever	
Plague	
Pneumonia	33	15	33	1	
Pyæmia	2	1	2	...	
Rabies	
Relapsing Fever	
Rheumatic Fever	
Septicæmia	2	2	2	...	
Trypanosomiasis (Sleeping Sickness)	...	2	...	2	...	
Small-Pox	
Syphilis—						
(a) Primary	3	...	3	...	
(b) Secondary	
(c) Inherited	
Tetanus	11	6	11	...	
Tuberculosis—phthisis	2	18	7	20	...	
Whooping Cough	
Yaws	
Yellow Fever	
INTOXICATIONS.						
Alcoholism	
Morphinism	
Others	
Carried forward	3	235	39	238	2	

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

TABLE III.—*continued.*VICTORIA HOSPITAL, BATHURST—*continued.*RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	Remaining in Hospital at end of 1923.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1924.	Remarks.
		Admissions.	Deaths.			
Brought forward ...	3	235	39	238	2	
GENERAL DISEASES.						
Debility	5	...	5	...	
Senility	1	1	1	...	
Anæmia	3	...	3	...	
Anæmia—Pernicious	
Diabetes	1	...	1	...	
Exophthalmic Goitre	
Gout	
Leucocythæmia	
Hodgkin's Disease	
Myxœdema	
Purpura	
Rickets	
Scurvy	
Rheumatism	17	...	17	1	
LOCAL DISEASES.						
<i>Diseases of the Nervous System.</i>						
Sub-section 1.						
Neuritis	
Meningitis...	2	1	2	...	
Myelitis	
Hydrocephalus	
Encephalitis	
Abscess of Brain	1	1	1	...	
Congestion of Brain	2	2	2	...	
Sub-section 2.						
Apoplexy	3	3	3	...	
Paralysis	2	1	2	...	
Chorea	
Epilepsy	1	...	1	...	
Neuralgia	1	...	1	...	
Hysteria	1	...	1	...	
<i>Mental Diseases.</i>						
Sub-section 3.						
Idiocy	
Mania	
Melancholia	
Dementia	1	...	1	...	
Delusional Insanity	
<i>Diseases of the Eye.</i>						
Conjunctivitis	7	...	7	...	
Keratitis	
Ulceration of Cornea	
Iritis	
Optic Neuritis	
Cataract	
Myopia	1	...	1	...	
Carried forward ...	3	284	48	287	3	

TABLE III.—*continued.*VICTORIA HOSPITAL, BATHURST—*continued.*RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	Remaining in Hospital at end of 1923.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1924.	Remarks.
		Admissions.	Deaths.			
Brought forward ...	3	284	48	287	3	
LOCAL DISEASES— <i>contd.</i>						
<i>Diseases of the Ear.</i>						
Inflammation	1	...	1	...	
Other Diseases	
<i>Diseases of the Nose</i>						
...	...	2	...	2	...	
<i>Diseases of the Circulatory System.</i>						
Pericarditis	
Endocarditis	
Valvular Mitral	9	4	9	...	
Aortic	
Tricuspid	
Pulmonary	
Arterial Sclerosis	
Aneurism	
<i>Diseases of the Respiratory System.</i>						
Laryngitis	
Bronchitis	29	...	29	4	
Broncho-pneumonia	
Abscess of Lung	
Gangrene of Lung	
Emphysema	
Pleurisy	5	...	5	...	
Empyema	
<i>Diseases of the Digestive System.</i>						
Stomatitis	1	...	1	...	
Caries of teeth	2	...	2	...	
Glossitis	1	...	1	...	
Sore Throat	1	...	1	...	
Inflammation of Tonsils	
Gastritis	5	...	5	...	
Ulceration of Stomach	1	...	1	...	
Hæmatemesis	
Dilatation of Stomach	
Stricture of Stomach	
Dyspepsia	1	...	1	...	
Enteritis	5	2	5	...	
Appendicitis	2	...	2	...	
Cholecystitis	1	...	1	...	
Ulceration of Intestines	
Sprue	
Hernia	7	1	7	2	
Diarrhoea	4	1	4	...	
Constipation	2	...	2	...	
Carried forward ...	3	363	56	366	9	

TABLE III.—*continued.*VICTORIA HOSPITAL, BATHURST—*continued.*RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	Remaining in Hospital at end of 1923.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1924.	Remarks.
		Admissions.	Deaths.			
Brought forward ...	3	363	56	366	9	
LOCAL DISEASES— <i>contd.</i>						
<i>Diseases of the Digestive System.</i>						
Colic	10	...	10	...	
Hæmorrhoids	1	2	...	3	...	
Pancreatitis	
Hepatitis—Acute	3	...	3	...	
Abscess	
Cirrhosis	
Jaundice	2	...	2	...	
Peritonitis	
Ascites	
<i>Diseases of the Lymphatic System.</i>						
Splenitis	
Inflammation of Lymphatic Gland	...	3	...	3	...	
Suppuration of Lymphatic Gland	
Lymphangitis	1	...	1	...	
Elephantiasis	2	...	2	...	
<i>Diseases of the Urinary System.</i>						
Acute Nephritis	5	2	5	...	
Bright's Disease	11	5	11	...	
Pyelitis	
Calculus	
Renal Colic	
Cystitis	1	...	1	...	
Vesical Calculus	
Suppression	
Hæmaturia	
Chyluria	
<i>Diseases of the Generative System.</i>						
Male Organs—						
Urethritis	6	...	6	...	
Gleet	
Stricture	5	...	5	...	
Prostatitis	
Soft chancre	
Condyloma	
Inflammation of Scrotum	
Hydrocele	6	...	6	...	
Orchitis	
Epididymitis	
Abscess of Testicle	
Granuloma Pudendi	1	...	1	...	
Bubo	1	...	1	...	
Phimosis	1	...	1	...	
Carried forward ...	4	423	63	427	9	

TABLE III.—*continued.*VICTORIA HOSPITAL, BATHURST—*continued.*RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	Remaining in Hospital at end of 1923.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1924.	Remarks.
		Admissions.	Deaths.			
Brought forward ...	4	423	63	427	9	
LOCAL DISEASES— <i>contd.</i>						
<i>Diseases of the Generative System.</i>						
Female Organs—						
Pyosalpinsi	1	...	1	...	
Ovaritis	
Ovarian Cyst	
Endometritis	1	...	1	...	
Displacement of Uterus	
Vaginitis	
Amenorrhœa	
Dysmenorrhœa	2	...	2	...	
Menorrhagia	2	...	2	...	
Leucorrhœa	
Abortion	1	...	1	...	
Delayed Labour	
Postpartum Hæmorrhage	
Retained Placenta	
Premature Birth	2	1	2	...	
Puerperal Septicæmia	
Mastitis	
Abscess of Breast	
Parturition	25	3	25	1	
<i>Diseases of Organs of Locomotion.</i>						
Osteitis	1	...	1	...	
Arthritis	8	...	8	1	
Spondylitis	
Bursitis	
Myositis	1	...	1	...	
Synovitis	3	...	3	...	
<i>Diseases of Connective Tissue.</i>						
Cellulitis	9	...	9	1	
Abscess	25	2	25	1	
Elephantiasis	
Ulcer	1	15	...	16	...	
Fistula	6	1	6	1	
<i>Diseases of the Skin.</i>						
Urticaria	
Eczema	
Boil	5	...	5	...	
Carbuncle	
Herpes	
Psoriasis	
Oriental Sore	
Tinea	
Scabies	
Acne	
Prickly Heat	
Carried forward ...	5	530	70	535	14	

TABLE III.—*continued.*VICTORIA HOSPITAL, BATHURST—*continued.*RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	Remaining in Hospital at end of 1923.	Yearly Total.		Total Cases Treated.	Remain- ing in Hospital at end of 1924.	Remarks.
		Admissions.	Deaths.			
Brought forward ...	5	530	70	535	14	
Injuries—						
Burns ... ..	...	5	...	5	...	
General ... ..	...	...	...	...	...
Local	1	37	3	38	5	
Surgical Operations ... ..	...	...	...	...	...
Tumours	1	5	1	6	...	
Malformations ... ..	...	2	1	2	...	
Poisons ... ..	...	2	...	2	...	
Parasites—						
Animal ... ..	...	...	...	...	...
Protozoa ... ..	...	...	...	...	...
Trematoda (Flukes) ... ..	...	...	...	...	...
Cestoda—						
Tænia Solium ... ..	...	...	...	...	...
Tænia Saginata ... ..	...	2	...	2	...	
Nematoda—						
Ascaris ... ..	...	2	...	2	...	
Trichocephalus Dispar. ... ..	...	...	...	...	...
Trichina ... ..	...	...	...	...	...
Dracunculus ... ..	...	2	...	2	...	
Filariasis ... ..	...	...	...	...	...
Strongylus ... ..	...	...	...	...	...
Ankylostomiasis ... ..	...	1	...	1	...	
Oxyuris ... ..	...	...	...	...	...
Insecta—						
Myiasis ... ..	...	...	...	...	...
Malingering	1	9	...	10	...	
Total	8	597	75	605	19	

TABLE VI.

VICTORIA HOSPITAL, BATHURST.

SURGICAL OPERATIONS DURING 1924.

Incision and drainage of Abscess	...	...	...	...	12
Removal of foreign body	...	...	...	...	7
Incision of Tumour	...	...	...	...	6
Herniotomy	...	...	...	...	6
Amputation	...	...	...	...	5
Reduction of Fractures and dislocation	...	...	...	...	4
Circumcision	...	...	...	...	3
Laparotomy	...	...	...	...	3
Plastic Operations	...	...	...	...	3
Scraping Ulcer	...	...	...	...	2
Radical cure Hydrocele	...	...	...	...	2
Suturing Wounds	...	...	...	...	2
Extraction of Teeth	...	...	...	...	2
Castration	...	...	...	...	1
Curretage	...	...	...	...	1
Forceps delivery	...	...	...	...	1
Total	...	...	...	...	60

TABLE VII.

VICTORIA HOSPITAL, BATHURST.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1924.

Diseases.	Males.	Females.
INFECTIVE DISEASES.		
Beri-Beri	6	...
Dysentery	42	14
Gonorrhœa	41	...
Influenza	249	94
Leprosy (a) Nodular	1	2
Malaria (a) Sub-Tertian	1,200	873
Measles	88	83
Pneumonia	10	7
Syphilis—		
(a) Primary	3	...
(c) Inherited—Tertiary	1	...
Tetanus	5	1
Tuberculosis	2	3
Whooping Cough	8	...
Mumps	1	...
GENERAL DISEASES.		
Senility	2	...
Debility	13	9
Anæmia	5	1
Gout	2	...
Rickets ... ..	...	4
Rheumatism	256	134
LOCAL DISEASES.		
<i>Diseases of the Nervous System.</i>		
Sub-section 1.		
Neuritis	1	1
Headache	57	27
Sub-section 2.		
Paralysis ... ..	...	2
Neuralgia	3	2
Neurasthenia	3	1
Vertigo	4	5
Convulsions... ..	2	...
<i>Diseases of the Eye.</i>		
Conjunctivitis	287	134
Keratitis	5	...
Ulceration of Cornea	4	2
Pterygium	2	...
Defective Vision	76	5
Staphyloma	2	1
Blepharitis	18	6
Gonorrhœal	1	1
Foreign Body	1	1
<i>Diseases of the Ear.</i>		
Inflammation	7	14
Other Diseases	39	14
Foreign Body ... ..	...	6
Mastoiditis ... ..	...	1
<i>Diseases of the Nose.</i>		
Coryza	9	9
Epistaxis	1	...
Carried forward	2,457	1,457

TABLE VII.—*continued.*

VICTORIA HOSPITAL, BATHURST—*continued.*
 RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1924—*continued.*

Diseases.	Males.	Females.
Brought forward	2,457	1,457
LOCAL DISEASES—<i>contd.</i>		
<i>Diseases of the Circulatory System.</i>		
Endocarditis	2	...
Valvular Mitral	20	7
Tachycardia ... ..	...	1
<i>Diseases of the Respiratory System.</i>		
Laryngitis	2	2
Bronchitis	1,325	870
Broncho-pneumonia	5	1
Pleurisy	60	29
Pleurodynia	48	15
Congestion of the Lung	2	...
Bronchial Catarrh	208	78
Asthma	2	...
<i>Diseases of the Digestive System.</i>		
Gingivitis	2	1
Caries of Teeth	88	59
Glossitis	99	55
Sore Throat	16	7
Inflammation of Tonsils	8	3
Gastritis	11	7
Ulceration of Stomach	21	27
Hæmatemesis	5	8
Dilation of Stomach ... ..	...	4
Stricture of Stomach ... ..	...	1
Dyspepsia	150	188
Enteritis	2	...
Appendicitis	3	...
Colitis	16	14
Ulceration of Intestines	16	20
Hernia	14	...
Diarrhoea	582	368
Constipation	702	417
Colic	173	123
Hæmorrhoids	2	...
Prolapsus ani	2	1
Jaundice	3	...
Ascites	3	...
Pyorrhœa	6	3
<i>Diseases of the Lymphatic System.</i>		
Splenitis	7	1
Inflammation of Lymphatic Gland	6	...
Suppuration of Lymphatic Gland	9	...
<i>Diseases of the Urinary System.</i>		
Acute Nephritis	5	...
Bright's Disease	8	4
Renal Colic	1	...
Cystitis	6	...
Suppression	1	...
Enuresis	6	4
<i>Diseases of the Generative System.</i>		
Male Organs—		
Gleet	3	...
Stricture	3	...
Prostatitis	7	...
Condyloma	2	...
Orchitis	16	...
Epididymitis	8	...
Abscess of Testicle	2	...
Carried forward	6,145	3,775

TABLE VII.—*continued*

VICTORIA HOSPITAL, BATHURST—*continued*.
 RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1924—*continued*.

Diseases.	Males.	Females.
Brought forward	6,145	3,775
LOCAL DISEASES— <i>contd</i>		
<i>Diseases of the Generative System—contd.</i>		
Bubo	7	...
Phimosis	2	...
Dysuria	6	...
Hæmaturia	7	...
Varicocele	4	...
<i>Diseases of the Generative System.</i>		
Female Organs—		
Urethritis ... ..	...	6
Displacement of Uterus ... ..	...	2
Vaginitis ... ..	...	2
Amenorrhœa ... ..	...	4
Dysmenorrhœa ... ..	...	14
Menorrhagia ... ..	...	7
Leucorrhœa ... ..	...	10
Delayed Labour ... ..	...	19
Retained Placenta ... ..	...	1
Abscess of Breast ... ..	...	11
Pregnancy normal ... ..	...	12
<i>Diseases of Organs of Locomotion.</i>		
Osteitis	3	2
Bursitis	1	...
Synovitis	12	4
Myalgia	72	65
Myositis	11	14
<i>Diseases of Connective Tissue.</i>		
Cellulitis	13	4
Abscess	127	46
Elephantiasis	1	1
Ulcer	366	120
Edema	82	39
<i>Diseases of the Skin.</i>		
Urticaria	2	...
Eczema	2	6
Boil	27	5
Carbuncle	1	...
Herpes	2	3
Purpura	1	...
Leucoderma	2	...
Tinea	3	2
Scabies	45	31
Prickly Heat	1	...
Dermatitis	77	27
Impetigo	11	4
Pediculosis ... ..	...	2
Lichen Planus ... ..	...	1
Corn	1	...
Ainhum	2	...
<i>Injuries.</i>		
Local	461	88
Tumours		
Undescended Testicle	5	6
Torticollis	2	...
Parasites—	13	8
Cestoda—Tenia Solium	4	...
Tenia Saginata	10	4
Nematoda—	...	...
Ascaris	766	943
Dracunculus	2	2
Oxyuris ... ..	...	2
Total	8,299	5,292

TABLE VIII.

BATHURST STATION.

METEOROLOGICAL RETURN FOR THE YEAR 1924.

	Temperatures.				Rainfall.	Winds.
	Shade Max.	Shade Min.	Range.	Mean.	Amount in Inches.	General Direction.
January ...	90	60	30	75.0	—	North-East
February ...	95	59	36	77.0	—	Do.
March ...	105	60	45	82.5	—	Do.
April ...	97	60	37	78.5	—	North-West
May ...	90	65	25	77.5	—	Do.
June ...	95	69	26	82.0	2.98	Do.
July ...	90	69	21	79.5	13.85	Do.
August ...	88	69	19	78.5	26.14	Do.
September ...	92	68	28	80.0	11.96	Do.
October ...	90	70	20	80.0	0.79	North-East
November ...	90	66	24	78.0	0.74	Do.
December ...	88	50	38	69.0	—	Do.
Total ...	1,110	765	349	937.5	Inches	
Average ...	92.5	63.7	29.0	78.1	56.46	

TABLE IX.

GEORGETOWN MACCARTHY ISLAND STATION.

METEOROLOGICAL RETURN FOR THE YEAR 1924.

	Temperatures.				Rainfall.	Winds.
	Shade Max.	Shade Min.	Range.	Mean.	Amount in Inches.	General Direction.
January ...	97	56	41	76.5	0.62	Variable
February ...	106	58	48	82.0	—	North
March ...	109	65	44	87.0	—	Do.
April ...	110	70	40	90.0	—	Do.
May ...	109	71	38	90.0	1.31	Do.
June ...	108	71	37	89.5	10.44	Do.
July ...	93	73	20	83.0	12.14	North East
August ...	93	73	20	83.0	10.24	North
September ...	93	72	21	82.5	11.45	Do.
October ...	96	71	25	83.5	0.81	Do.
November ...	98	66	32	82.0	—	Do.
December ...	96	54	42	75.0	—	Do.
Total ...	1,208	800	408	1,004.0	Inches	
Average ...	100.6	66.6	34.0	83.6	47.01	

TABLE X.

FINANCIAL STATEMENT.—MEDICAL DEPARTMENT

Item.	Accounts.	Amount Estimated.	Amount Actual.		
		£	£	s.	d.
1/34	Personal Emoluments	8,963	7,901	2	4
35	Equipment, Nursing Sisters' Quarters	30	24	8	11
36	Expenses of Burials	30	32	4	0
37	Extra Assistance in Emergency Cases	30	0	6	0
38	Fees in Connection with Appointments to European Staff	120	126	12	3
39	Fuel and Lighting	150	69	1	5
40	Horse, Motor and Bicycle Allowances	210	156	9	3
41	Hospital Appliances, Bedding, Clothing, etc. ...	440	386	11	6
42	Maintenance of Home for Destitutes	230	102	15	11
43	" " Lunatics at S. Leone	250	239	0	11
44	" " Sick	1,545	953	12	4
45	Medical Library	30	23	8	9
46	Medicines and Vaccines	1,200	1,105	11	10
47	Outfit Allowances to Medical Officer and Nursing Sisters	120	120	0	0
48	Sea Passages	370	417	1	0
49	Sundries	60	52	11	11
50	Surgical Instruments, Appliances and Dress ...	675	420	14	5
51	Transport	130	9	3	6
52	Travelling Allowances for Protectorate Medical Officer	183	120	10	0
53	Washing, Disinfectant and Soap	100	61	19	8
	Total	£14,866	£12,323	5	11

Hospital Receipts £348 6s. 2d.

TABLE XI.

FINANCIAL STATEMENT.—PUBLIC HEALTH DEPARTMENT.

Item No.	Accounts.	Amount Estimated.	Amount Actual.		
		£	£	s.	d.
1/15	Personal Emoluments	2,918	2,897	14	7
16	Anti-Mosquito Measures	1,000	850	13	6
17	Bicycle Allowance	8	3	16	3
18	Cleaning of Streets and Drains	1,940	1,855	10	9
19	Cleaning Market, etc.	180	174	13	1
20	„ of Cemeteries	115	110	10	0
21	„ of Government Compound	250	239	9	6
22	Expenses of Working Sluice Gates... ..	100	100	0	0
23	Fees to Vaccinators	300	26	12	0
24	Infectious Diseases Prevention	250	205	7	0
25	Latrine Pails and Dustbins... ..	145	172	17	1
26	Mangrove Cutting	50	50	0	0
27	Rat Traps and Poison, etc.	50	65	3	5
28	Sanitary Night Service	1,032	942	16	8
29	Sea Passages	165	179	0	0
30	Sundries	10	7	4	2
31	Tools	65	48	15	1
32	Transport	80	8	10	0
33	Upkeep of Horses and Carts	595	579	1	6
34	„ „ Street Lights	415	337	4	2
	Total	£9,668	£8,847	14	7

Sanitary Service £448 15s. 0d.



