Annual report of the Medical Department / Colony of the Gambia.

COLONY OF THE GAMBIA.

THE ANNUAL

MEDICAL AND SANITARY REPORT

FOR THE YEAR 1925.

[Craig, T.L.
Sen Med Officer]

PRICE 5/-

PUBLISHED BY THE CROWN AGENTS FOR THE COLONIES,
4 Millbank, London, S.W.1.

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The Tropical Diseases Bureau,
23, Endsleigh Gardens,
N.W.1.

With the Compliments of the Crown Agents for the Colonies. on behalf of the Government of Gambia.

Annual Medical & Sanitary Report of the Gambia 1925

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MEDICAL REPORT.

MEDICAL DEPARTMENT,
19th April, 1926.

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 1925, together with the Returns, etc., appended thereto.

2. The Sections on Port Health Work and Maternity and Child Welfare are the work of the Medical Officer of Health, Dr. Innes, although they do not come under his signature in the Report.

I have the honour to be,
Sir,
Your obedient servant,
(Sgd.) THOS. L. CRAIG,
Senior Medical Officer.

THE HONOURABLE,
THE ACTING COLONIAL SECRETARY.

ANNUAL MEDICAL AND SANITARY REPORT

FOR THE

YEAR ENDING 31ST DECEMBER, 1925.

I. ADMINISTRATION.

(*a*) STAFF.

Dr. J. W. Pollard returned from leave on 9th March, 1925, and was transferred to Nigeria as Assistant Director Medical Service on 15th November, 1925.

Dr. T. L. Craig, S.M.O., transferred from Nigeria, took charge of the Medical Dept., from 23rd December, 1925.

Dr. K. B. Allan, M.O., acted Senior Medical Officer from 16th November, 1925, to 22nd December, 1925.

Dr. G. E. Craig, M.O., proceeded on leave on 20th April, 1925, and resumed duty on 18th September, 1925.

Dr. J. C. Cruickshank, M.O., resumed duty on 20th March, 1925.

Dr. A. M. W. Rae, M.O., proceeded on leave on 20th August, 1925, and resumed duty on 12th December, 1925.

Miss M. Thompson, Senior Nursing Sister, proceeded on leave on 8th May, 1925, and resumed duty on 3rd October, 1925.

Miss P. Stagg, Nursing Sister, acted Senior Nursing Sister from 9th May, 1925, to 25th October, 1925.

Miss J. Roberts, Nursing Sister, proceeded on local leave from 5th October, 1925, to 25th October, 1925.

(*b*) LIST OF ORDINANCES AFFECTING PUBLIC HEALTH ENACTED DURING THE YEAR.

The Bread (Amendment) Ordinance, 1925, adding penalties for infringement of.

The Public Health (Amendment) Ordinance, 1925, changes of titles, etc.

(*c*) FINANCIAL.

MEDICAL DEPARTMENT.

	Estimated.	Actual.
	£	£ s. d.
Revenue	350	253 12 7
Expenditure	14,108	12,955 8 11

PUBLIC HEALTH DEPARTMENT.

	Estimated.	Actual.
	£	£ s. d.
Revenue	975	1,201 13 11
Expenditure	10,614	9,466 13 11

The Actual Expenditure on the Medical and Public Health Services represents one-ninth of the actual revenue for the year.

II. PUBLIC HEALTH.

(a) General Remarks.

(1) *General Diseases.*

The most prevalent general diseases are Pneumonia, Bronchitis, Rheumatism, Conjunctivitis, Intestinal Disorders, Ulcers and local injuries. Pneumonia was of a severe type and occurs during cold weather.

(2) *Communicable Diseases.*

1. *Mosquito or Insect borne.*—There was an increase of 27 in-patients treated for Malaria during the year, 96 in-patients and 1,851 out-patients were attended.

Blackwater Fever.—Three cases with one death.

Yellow Fever.—No cases reported.

Relapsing Fever.—Two outbreaks occurred in the Protectorate and are reported on by the Medical Officer of Health.

2. *Infectious Diseases.*—Influenza was present in the last quarter of the year, and was a mild type, causing a large amount of disability, but only one death in those treated at Hospital as in-patients.

Measles was practically absent during the year.

Pneumonia, 41 cases treated, with 16 deaths. The type of pneumonia was particularly severe in the Protectorate. Appendix I.

Plague, no cases reported during the year.

Smallpox, 8 cases occurred in the Protectorate. None in Bathurst.

Venereal Diseases are prevalent. More cases were treated during the year; 163 as against 67 in 1924, but facilities exist for many more cases than seek treatment.

Tetanus, 24 cases were treated as against 17 cases in 1924. The incidence of this disease in the new-born was greatly reduced in the latter half of the year by the work done at the Child Welfare Clinic.

3. *Helminthic Diseases.*—Ascaris is still the most common helminthic disease treated at Bathurst. Ankylostomes and tænia are common in the Protectorate.

VITAL STATISTICS.

(1) General Native Population.

Estimated population per year	9·919 Bathurst only.
Number of births per year	262.
Birth rate per year	22·41 per 1,000.
Number of deaths per year	329.
Death rate per year	33·17 per 1,000.

There were 48 still births and 112 deaths of infants up to one year. The statistics for Bathurst are fairly reliable, no statistics are kept for the Protectorate in which there is an estimated population of 210,530. Tables in Appendix II.

(2) General European Population.

The health of the general European population was good in Bathurst, but there was a considerable amount of sickness in the Protectorate, see Appendix I.

The following tables show the general European population and the sick, invaliding and death rates of European non-officials.

GENERAL EUROPEAN POPULATION.

	Male.	Female.
Government Officials	60	4
Residents	1	30
Employees of Mercantile Firms	107	—
Missionaries	3	9
Total	171	43

Total European Population, 214.

SICK, INVALIDING, AND DEATH RATES OF EUROPEAN NON-OFFICIALS FOR 1925.

How employed.	Number.	Deaths.	Invalided.	Death rate per cent.	Invaliding rate per cent.
Merchants	107	4	1	3·73	·93
Others	31	—	—	—	—
Missionaries	12	—	—	—	—
Total	150	4	1	3·73	·93

Deaths were due to Accidental drowning.
Septicæmia.
Cardiac Disease.
Blackwater Fever.

Invaliding due to Blackwater Fever.

(3) EUROPEAN OFFICIALS.

The health of the official European residents was better than in 1924. The chief causes of unfitness are malaria and influenza. There was one death due to Acute Mania.

The following tables show the sick, invaliding, and death rate for European officials :—

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

	1923.	1924.	1925.
Total number of officials resident	65	66	64
Average number resident	45	42	53
Total number on sick list	51	68	43
Total number of days on sick list	319	422	295
Average daily number on sick list	0·87	1·15	0·81
Percentage of sick to average number resident ...	113·33	161·90	81·13
Average number of days on sick list for each patient	6·25	6·20	6·65
Average sick time to each resident	7·08	10·04	5·60
Total number invalided	2	2	2
Percentage of invalidings to total residents	3·07	3·06	3·12
Total deaths	1	1	1
Percentage of deaths to total residents	1·53	1·51	1 56
Percentage of deaths to average number resident ...	2·22	2 31	1·88

EUROPEAN OFFICIALS INVALIDED (1925.)

Serving under	Residential Service.					
	Under 6 months.	6 but under 9 months.	9 but under 12 months.	12 but under 15 months.	15 but under 18 months.	18 months and over.
Old Leave Regulations ...	...	...	...	...	...	...
New Leave Regulations	...	...	1	1	...	...

(4) Native Officials.

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

	1923.	1924.	1925.
Total number of officials resident	203	223	234
Average number resident	181	203	209
Total number on sick list	533	531	655
Total number of days on sick list	2,070	2,144	2,625
Average daily number on sick list	5·67	5·85	7·47
Percentage of sick to average number resident ...	294·47	261·08	313·35
Average number of days on sick list for each patient	3·88	4·03	4·00
Average sick time to each resident	11·43	10 56	12·56
Total number invalided	2	—	—
Percentage of invalidings to total residents	·98	—	—
Total deaths	1	2	1
Percentage of deaths to total residents	·49	·87	·42
Percentage of deaths to average number resident ...	·55	1·47	·47

III. HYGIENE AND SANITATION.

(A) *Malaria.*—Bathurst is divided into six sections, each inspected daily by an African inspector, particular attention being paid to wells, tanks and all possible mosquito breeding places. Swamp ground near town is stocked with fish, filled up or oiled as necessary.

Trypanosomiasis.—Cutting of undergrowth, mangrove, etc., is carried out annually near the town and infectious diseases hospital. In the Protectorate clearances are made at river crossings, wharves and river towns.

Yellow Fever.—As Stegomyia largely predominate in Bathurst, every endeavour is made to keep the index for this species at the lowest possible level. Ships are inspected for cases of sickness when coming from ports known to be infected.

Epidemic Diseases.

Plague.—In addition to examination of all ships, the use of rat guards is insisted on alongside wharves. The rat population in town is dealt with by payment of 1 penny for each rat living or dead brought to the Public Health Office. This measure accounts for some 15,000 rats per annum. Occasional examinations of rats for plague have yielded negative results.

Smallpox.—Vaccinations are done chiefly by the Travelling Commissioners; 2,554 were done during the year but the results are not recorded. There was only one outbreak (8 cases) of a mild type in the Protectorate, and no case occurred in Bathurst.

Dysentery.—This is a notifiable disease and when cases are reported a special inspection of latrine accommodation is made, and any defects remedied. There is a pipe-borne water supply, and food is sold under inspection.

Tuberculosis.—Within the year, 20 cases have been notified in Bathurst. Attempts were made to investigate, instruct and follow up these cases. It is evident that one third, if not one half of them owe their infection to residence at various places on the River, e.g., Fatoto, Basse, etc. We are facing the anticipated difficulties now. Notification is incomplete. It is impossible to convince some patients and their friends of the dangers of this disease. Further, the invariable death of lung cases is sure to increase reluctance to seek or allow hospital treatment for any case. The average age of the fatal cases for the year is 32·7 years against 31 for previous quinquennium, and the range of ages of from 15 to 60 years. The question of over-crowding of yards and houses has been taken in hand, but is not yet completed. Regulations will be required to enable us to deal with sites, for so called temporary buildings, as also with their type, material and structure, so as to embody as many good sanitary points as possible in every sanctioned house. A wise restriction could thus be placed on the multiplying of those ephemeral, yet too lasting shacks that are mere rent catchers and are wholly a menace to sanitation, whether let or unlet.

Helminthic Diseases.—No special preventive measures are undertaken against these diseases, beyond free treatment on the usual lines of all cases presenting themselves.

(B.) General Measures of Sanitation.

Nightsoil is disposed of by the dry earth-bucket system. The buckets are emptied and washed in the river edge. There are six large public latrines and three others built over the river. Only a small proportion of the work is done by paid Government labour, the bulk of it being privately arranged for. This method of end disposal is very unsatisfactory, and enquiries into removal by barges, incineration, etc., are being carried out.

Scavenging is effected by carts which visit all yards in town every other day. The rubbish thus collected from dustbins and streets is conveyed to a low-lying area and burnt in the open, incombustible material being pushed within tide range. By this means a considerable area of land has been reclaimed.

Drainage is effected by open drains in certain streets, some of earth and some of brick and cement. Most of these communicate with a main drain which discharges at low water through sluice gates.

Water Supply.—There is a pipe-borne water supply throughout the town, stand pipes being placed at suitable points. The water is pumped from an enclosed collecting area at Lamin (15 miles from Bathurst), to a reservoir at Cape St. Mary (8 miles from town), whence it is distributed by gravitation. The water is of good quality but recently, discolouration and sediment have been noted in town, owing to pipe corrosion. Many of the houses have rain-water tanks in addition. Wells are used in town, but their water is brackish and serves only for garden or washing purposes.

Offensive trades are provided for by Ordinance. The only one at present is hide curing.

Clearance of bush and under-growth is carried out during the rainy season in streets and around town by a grass-cutting gang. Private yards and premises are kept clear of high weeds and grass by their owners.

Reclamation.—A sand pumping dredger began work in November, under a reclamation scheme. This should markedly improve our morbid and mortal statistics within a few years, from its filling up of low-lying areas, relieving congestion by providing new and better building ground, and perhaps from better drainage.

Prosecutions.—For various offences against the Public Health Law, 232 persons were convicted, and £75 16s. 6d. imposed in fines.

Cemeteries.—A new Moslem cemetery, and a new Pagan one, have been laid out west of the general cemetery after a great deal of levelling and filling up. The ground so utilized will no longer afford breeding facilities to the numerous mosquitoes that have hitherto annually patronized it despite all our oil and fishes. The work done has thus a double value. It is hoped that one more lagoon and part of the general cemetery may soon be similarly treated.

Sanitation at Cape St. Mary.—As much as is possible from Bathurst, the Assistant Sanitary Inspector has continued to visit the Cape villages and European quarters there, to exercise control over mosquito breeding, collection and burning of rubbish and sanitation generally. In spite of our feeble control owing to distance, considerable improvement in village conditions has been effected. Appendix III. Report on Protectorate Sanitation.

III. SCHOOL HYGIENE.

School children are medically examined twice yearly, and advice and treatment are given free where necessary. Inspection of school premises is made by the Sanitary Inspector. Dry sweeping and dusting have been forbidden, and also school cleansing by children. Floors are scrubbed with disinfectant at least once a week.

IV. LABOUR CONDITIONS.

There are no large industries which would call for the legal regulation of labour conditions. Labour is all by voluntary enrolment. In Public Health and Public Works Departments, accommodation is provided in labourers' lines. No medical inspection of labour is done. Labour is chiefly casual and is connected with ground nut loading and general shipping. In connection with the handling of ground nuts for shipment, however, the use of some form of respirator has been considered, but the respirator which the casual labourer will use has not been devised yet.

V. HOUSING AND TOWN PLANNING.

Many of the Protectorate towns have been surveyed and are laid out on modern lines. In Bathurst, plans for all new buildings must be submitted to and passed by the Director of Public Works and the Medical Officer of Health.

VI. FOOD IN RELATION TO HEALTH AND DISEASE.

All meat is inspected after slaughter by a European Sanitary Inspector. Food stuffs such as fish, rice, fruit, vegetables are also sold in the public market under sanitary supervision.

Beri-beri is the only deficiency disease met with. Eight cases are on record for the year (2 deaths), of which one was a prisoner. Scurvy and pellagra are not known to exist in the Gambia.

(B.) Measures taken to spread the knowledge of Sanitation and Hygiene.

A course of public lectures is given annually by a member of the Medical Staff. It is primarily intended for advanced school pupils, teachers and members of the Public Health Department.

Hygiene is a compulsory and grant-earning subject in all the schools. Grants are made only after examination and for pupils who pass. African inspectors are instructed to inform the townspeople of the reasons for the carrying out of the sanitary measures in force.

(C.) Training of the Sanitary Personnel.

African inspectors are instructed in their various duties by the Medical Officer of Health and European Sanitary Inspectors.

Thus they are taught the elementary principles of meat inspection, the method of dealing with premises and clothing in cases of infectious disease, the use of Clayton apparatus in ridding ships and buildings of rats and bugs.

(D.) Recommendations for future Work.

(1) The provision of a sanitary station in case of outbreak of dangerous epidemic disease, e.g., Plague, Yellow Fever.

(2) Construction of a new slaughter house with provision for inspection and storage of meat.

(3) Extension of the roofed area of the market and general improvements.

(4) Completion of a scheme for night soil disposal.

IV. PORT HEALTH WORK AND ADMINISTRATION.

During the year, 199 vessels were boarded and all deck passengers examined. Occasional reports of plague at Teneriffe and Las Palmas of a belated and uncertain nature, and its continuance at Lagos seemed to necessitate these routine precautions. Various Bills of Health presented are not only of doubtful value, but even actually misleading, though drawn in due form and officially endorsed. American Bills of Health do show informative details and seem exhaustive. Again the Ministry of Health's Weekly Record is filed here as history, but can give no warning of danger as it is only available five or six weeks late. We have, therefore, had to insist on the use of rat guards and such like measures by ships at our wharves. Three Masters of vessels have been fined for infringement of Regulations.

V. MATERNITY AND CHILD WELFARE.

The Mother and Child Welfare Clinic has done good work during the year. A European District Sister was appointed and began work in January, 1925. During the first six weeks the advertised Clinic at the Victoria Hospital was a failure, nobody came. But the District Sister kept visiting largely among the people and a few began to come to see her. Very soon she had the nucleus of a good clinic in her quarters, and mutual confidence grew rapidly.

His Excellency the Governor, very kindly opened the Welfare Clinic formally on June 4th. The work thus suitably centered and housed, immediately doubled and then trebled itself. Three African nurses have been trained by the District Sister and a fourth selected for approval. Success has been embarrassing at times, the waiting list had to be sifted and finally curtailed, as attendance could not possibly be promised to all applicants.

The following are outstanding facts, the figures being both accurate in the table and wide enough to admit of valuable deductions.

(1) Not a single case of tetanus or ephthalmia neonatorum has occurred in a child, nor puerperal fever in a mother.

(2) The antenatal work, discovering albuminurias mal-presentatio, etc., has forestalled serious troubles.

(3) Of the 101 births conducted, including four twin labours, 15 were still-births and 90 live. Of the 90, one has died at Sierra Leone and two others here ; all the rest are alive so far as can be ascertained at the year end. Instead of three, some forty of these infants would be dead, were the infant mortality rate of the quinquennium applied.

It is hereby established that African midwives, instructed and supervised in proper methods, can and do conduct midwifery work without mishap. This fact shows up in almost horrible relief the other side of things. It is this : Twenty deaths from tetanus have occurred in the 0–5 group. One was a child, one-and-a-half years old, a second was two years old ; this leaves eighteen who are hapless victims of non-responsible native midwives and their methods, *i.e.*, 90 per cent.

Be it noted that both trained and untrained midwives have been working with the same classes of women, houses, huts, floors, beds—but the untrained

cause 90 per cent. of the infant deaths from tetanus, the trained nil. The necessity must now be clear to all for a trained registered body of African midwives, and for the delegalisation of all untrained agents. An entire going service is feasible within at most two years. The infant mortality rate is 317 against 471 of last year, and against a mean rate of 454 for 1921–1925. It is a remarkable decline for one year, (although the decrease has been gradual from 504 since 1911).

This decline is attributable very largely to the almost phenomenal success of the Clinic. A study of the following facts will satisfy any one that this claim is just:—

TABLE OF ATTENDANCES, CASES, ETC., AT WELFARE CLINIC.

1925. Month.	Ante-natal Clinic.	Sick Infants.	Weighing Clinic.	Midwifery Cases.	Waiting List
February	15	16	...	...	...
March	24	30	13	2	...
April	42	55	32	6	...
May	39	82	40	4	...
June	63	274	63	5	...
July	135	280	123	14	...
August	78	145	67	12	...
September	118	249	125	20	...
October	115	229	157	16	...
November	110	167	168	6	...
December	79	74	175	16	74
Totals	818	1,601	963	101	74

VI. HOSPITALS, DISPENSARIES AND VENEREAL CLINICS.

There are two hospitals serving the Colony and Protectorate, Victoria Hospital in Bathurst with 51 beds, of which 15 can be used for Europeans, and a small hospital at Georgetown, 210 miles up the Gambia river, with 15 beds, of which one is available for Europeans.

During the year, 42 Europeans were treated as in-patients with 3 deaths, (one death from Blackwater Fever in the Protectorate); 38 were attended as out-patients. The prevailing diseases are malaria, influenza and gastric troubles.

African in-patients numbered 767 with 83 deaths; as out-patients 10,979 male and 4,916 females were treated. The prevailing diseases treated were malaria, bronchitis, ulcers and local injuries.

The following operations were performed during the year under general anæsthesia:—

Circumcision	11	Amputation of toe	2
Herniotomy	11	„ „ finger	3
Hydrocoele (rad. cure)	7	„ „ scrotum	3
Wounds sutured	9	„ „ leg	1
Deep abcesses	20	Spina bifida (rad. cure)	1
Foreign bodies removed	6	Keloids (excision)	1
Fractures (reduction)	1	Sequestrotomy	1
Dislocation („)	1	Tracheotomy	1
Delivery	2	Empyema	1

Total 82. Deaths 3.

Venereal Clinic.—There is one special building devoted to the work of venereal clinic and for X Ray examinations.

The natives do not take advantage of the modern methods for the treatment of gonorrhœa and syphilis which are available.

The following number of injections were given in a period of seven months, (no separate record for the other months):—

Intravenous	62
Intramuscular	29
Hypodermic	66

There were 36 X Ray examinations made during the year.

VII. PRISONS AND ASYLUMS.

The prisons were efficiently maintained during the year and the health of the prisoners was good. There has been no serious epidemic. There was a number of cases of influenza in Bathurst prison during the latter part of the year, and a small outbreak of smallpox occurred at Georgetown prison.

The food, of good quality and ample in quantity, consists of rice, fish, meat, koos pap, palm oil and vegetables from the prison garden.

Bathurst Prison.—The average daily number of prisoners was 98. 324 out-patients were attended at the prison and 36 in-patients were treated, with 6 deaths. (Included in the Return of Diseases and Deaths.)

The following improvements were carried out during the year:—

(1) Old wooden beds, which harboured bugs, were replaced by plain boards on a concrete base.

(2) Construction of a concrete drain along the lower end of the prison yard.

Improvements recommended:—

(1) Increased ventilation through the ridge of the roof in the association cells.

(2) Construction of a concrete drain in the warders' compound.

Georgetown Prison.—There were 253 new prisoners confined during the year. The health was good; one death from beri-beri.

There are 8 association cells 20 by 12 by 15 feet; number of prisoners varies from 4 to 8 per cell, giving a cubic space per prisoner of from 900—400 cubic feet.

Asylums.—There is no lunatic asylum in the Gambia.

All certified lunatics are transferred to the asylum at Freetown, Sierra Leone.

VIII. METEOROLOGY.

Meteorological conditions were very favourable during the year 1925. The rainfall was 44·77 inches, evenly distributed during the months June—October.

The highest temperature recorded was 103° F. in June and the lowest 55° F. in January.

The evenly distributed rainfall contributed to the good health conditions in Bathurst, as there was not as much flooding in the low areas as in former years.

IX. SCIENTIFIC.

Notes by Dr. Frank A. Innes, M.O.H.

On several occasions it had been noted, that newly hatched Stegomyiæ escaped through copper wire gauze of 18 strands to the square inch. In one case, *e.g.*, of 120 larvæ, 3 died, 117 hatched to imagines, of which 9 passed through the gauze, and it was surmised that 78 per cent. of local stegomyiæ could do so.

On his Excellency's instructions, special experiments were conducted with new gauze, and it was found that 10 per cent. of stegomyiæ and 10·5 per cent. of culicines (190 in batch) can, on hatching, pass through 18-strand new gauze. The indication for using a closer mesh (22-strand) is obvious. A specimen of Argas sent to Professor Newstead of Liverpool, has been identified as Argas vespertillionis. These have been found in office and quarters, but as far as we know are not related to human disease. From the recorded ill effects on human beings of bites by Argas persicus infesting dove-cots, it may be well to keep an eye locally on this parasite.

Larvæ of Culex tigripes are found to be voraciously cannibalistic. Two were watched devouring a pupa. One was observed to consume 5 larvæ almost without stop.

Mucidus scatophagoides larvæ and pupæ are creamy white and are found breeding in wide shallow grassy rain pools. The larvæ are fiercely larvivorous. One adult female was brought to the Public Health Office by an officer, who had captured it in his mosquito net.

Culex thalassius appeared in extraordinary numbers suddenly all over the town, at the beginning of the rains—July 4–6. It is practically certain that we owe these incursions to outlying swamps, probably a considerable distance from the town.

What was supposed to be Stegomyia Africana was found breeding in trocholes in town, and in jars at Bakau and Bathurst.

They are reported by Professor Newstead to be Stegomyia Luteocephela. They were found sometimes in the same breeding places with Stegomyia Fasciata.

One specimen of Taeniorhyncus (too injured for specific determination) was captured. These two latter are reported from Bathurst for the first time.

2. A tumour of the liver, recovered post mortem by Dr. J. C. Cruickshank, from an adult African female was reported to be Melanoma, by Professor Blacklock of the Sir A. L. Jones Laboratory, Sierra Leone.

Recommendations for 1926 Medical.

Provision for new laboratory with facilities for Medical Officer, Victoria Hospital, Medical Officer of Health, and any special research worker.

Present laboratory to be converted into store and addition to pantry.

(Sgd.) THOS. L. CRAIG,

Sen. Medical Officer.

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 1925 ...	—	—	—	—	—	9,919 (Estimated)
„ „ Births during the year 1925	—	—	—	—	—	262
„ „ Deaths „ „ „ „	—	—	—	—	—	329
„ „ Immigrants „ „ „	—	—	—	—	—	(Not recorded)
„ „ Emigrants „ „ „	—	—	—	—	—	Do.
Number of Inhabitants in 1924 ...	—	—	—	—	—	9,741 (Estimated)
Increase „ „ ...	—	—	—	—	—	178
Decrease „ „ ...	—	—	—	—	—	—

TABLE 1A.

BATHURST STATION.

METEOROLOGICAL RETURN FOR THE YEAR 1925.

	Shade Max.	Shade Min.	Range.	Mean.	Rainfall.	Winds. General Direction.
January ...	90	55	35	72·5	—	North-East
February ...	95	59	36	77·0	—	Do.
March ...	95	60	35	77·5	—	Variable
April	95	62	33	78·5	—	Do.
May	103	61	42	82·0	—	Do.
June	103	61	42	82·0	2·66	North-West
July	95	65	30	80·0	4·26	Do.
August ..	90	69	21	79·5	17·69	Do.
September ...	90	68	22	79·0	14·20	Do.
October ...	90	68	22	79·0	5·96	Do.
November ...	93	66	27	79·5	—	North-East
December ...	90	60	30	75·0	—	Do.
Total ...	1,129	754	375	941·5	44·77 Ins.	
Average ...	94·0	62·8	31·2	78·4	—	

TABLE 1B.

GEORGETOWN STATION.

METEOROLOGICAL RETURN FOR THE YEAR 1925.

	Shade Max.	Shade Min.	Range.	Mean	Rainfall.	Winds. General Direction.
January ...	97	56	41	76·5	—	
February ...	104	61	43	82·5	—	
March ...	107	64	43	85·5	—	
April	110	70	30	90·0	—	
May	110	68	32	89·0	—	
June	107	61	46	84·0	5·45	
July	101	71	30	86·0	6·77	
August ..	93	72	21	82·5	10·26	
September ..	94	60	34	77·0	20·58	
October ...	97	65	32	81·0	6·05	
November ...	98	64	34	81·0	—	
December ...	100	54	46	77·0	—	
Total ...	1,218	766	432	992·0	49·11	
Average ..	101·5	63·8	36·0	82·6	—	

Highest temperature of the year	110° F.
Lowest „ „ „	54° F.
Rainfall for year	49·11

TABLE II.

EUROPEAN.

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1925.

Diseases.	Remaining at end of 1924.	In-Patients.			Remaining at end of 1925.	Out-Patients Admitted.
		Admitted.	Deaths.	Total.		
INFECTIVE DISEASES.						
Dysentery (Amœbic)	1	1	...	2	...	...
Gonorrhœa	...	2	...	2	...	...
Influenza	...	1	...	1	...	11
Malaria (Sub-tertian)	...	12	...	12	..	5
Blackwater Fever	...	2	1	2	...	...
Septicæmia	...	1	1	1	...	...
Syphilis (Primary)	...	1	...	1	...	...
GENERAL DISEASES	...	...	...	...	...	...
LOCAL DISEASES.						
Mania	...	1	1	1	...	...
Neuralgia	...	...	...	...	...	2
Diseases of the Eye.						
Conjunctivitis	...	...	...	...	...	1
Trauma	...	...	...	...	...	1
Diseases of the Circulatory System	...	...	...	...	...	...
Diseases of the Respiratory System.						
Bronchitis	...	...	...	...	...	1
Pleurisy	...	1	...	1	...	...
Diseases of the Digestive System.						
Tonsillitis	...	1	...	1	...	1
Gastritis	...	2	...	2	...	5
Enteritis	...	...	...	...	...	2
Duodenal Ulcer	...	1	...	1	...	...
Appendicitis	...	1	...	1	...	...
Cholecystitis	...	1	...	1	...	...
Hæmorrhoids	...	1	...	1	...	...
Diseases of the Lymphatic System						
Adenitis	...	2	...	2	...	...
Diseases of the Urinary System ..	...	...	...	...	...	...
Diseases of the Generative System.						
Menorrhagia	...	1	...	1	...	...
Phimosis	...	1	...	1	...	...
Diseases of Organs of Locomotion.						
Arthritis	...	1	...	1	...	3
Synovitis	...	1	...	1	...	...
Diseases of Connective Tissue.						
Cellulitis	...	1	...	1	...	...
Abscess	...	1	...	1	...	...
Boils	...	2	...	2	...	2
Diseases of the Skin.						
Tinea Circinata	...	...	...	...	...	1
Injuries.						
Local	...	2	...	2	...	3
Total	1	41	3	42	...	38

TABLE II.—*continued.*

AFRICANS.

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1925.

Diseases.	Remaining at end of 1924.	In-Patients.			Remaining at end of 1925.	Out-Patients.	
		Admitted.	Deaths.	Total.		Males.	Females.
INFECTIVE DISEASES.							
Beri-Beri	...	4	2	2	1	3	1
Cerebro-Spinal Fever	...	...	...	...	...	...	...
Chicken-Pox	...	1	...	1	...	...	...
Cholera	...	...	...	...	...	...	...
Dengue	...	...	...	...	...	...	...
Diphtheria	...	...	...	...	...	..	...
Dysentery (Amœbic)	...	21	7	21	2	36	13
Endocarditis (infective)	...	...	...	...	...	...	...
Enteric	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...
Gonorrhœa	...	36	...	36	...	122	3
Influenza	1	36	1	37	...	256	82
Kala-Azar	...	...	...	...	...	...	...
Leprosy	...	...	...	...	...	3	3
Malaria	...	...	...	...	...	...	...
(*a*) Subtertian	...	82	...	82	3	1,221	625
(*b*) Quartan	...	...	...	...	...	...	...
(*c*) Aestive-autumnal	...	2	2	2	...	...	...
(*d*) Chronic Malaria	...	...	...	...	...	...	...
(*e*) Blackwater Fever	...	1	...	1	...	...	
Measles	...	1	...	1	...	...	...
Plague	...	...	...	...	...	...	...
Pneumonia	1	40	16	41	3	19	6
Pyæmia	...	...	...	...	...	...	...
Rabies	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	7	2
Rheumatic Fever	...	1	...	1	...	...	...
Trypanosomiasis	...	5	2	5	1	6	2
Septicæmia	...	1	1	1	...	...	...
Small-Pox	...	...	...	...	...	7	1
Syphilis—							
(*a*) Primary	...	2	...	2	...	10	...
(*b*) Secondary	...	...	...	...	...	...	...
(*c*) Inherited	...	6	1	6	...	20	10
Tetanus	...	8	2	8	...	12	4
Tuberculosis	...	21	5	21	...	27	5
Whooping Cough	...	...	...	...	...	...	2
Yaws	...	...	...	...	...	2	...
Yellow Fever	...	...	...	...	...	...	...
INTOXICATIONS.							
Alcoholism	...	...	...	...	...	...	...
Morphinism	...	...	...	...	...	...	...
Others	...	...	...	...	...	...	...
GENERAL DISEASES.							
Debility	...	6	1	6	1	10	2
Senility	...	1	...	1	...	...	...
Anæmia	...	1	...	1	...	22	4
Anæmia (Pernicious)	...	...	...	...	...	...	...
Diabetes	...	...	...	...	...	..	...
Exophthalmic Goitre	...	...	...	...	...	...	...
Carried forward	...	2	276	40	276	11	1,783	765

TABLE II.—*continued.*

AFRICANS—*continued.*

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1925—*continued.*

Diseases.	Remaining at end of 1924.	In-Patients.			Remaining at end of 1925.	Out-Patients.	
		Admitted.	Deaths.	Total.		Males.	Females.
Brought forward ...	2	276	40	276	11	1,783	765
GENERAL DISEASES—*contd.*							
Gout	...	...	...	...	...	...	...
Leucocythæmia	...	...	...	...	...	...	...
Hodgkin's Disease	...	...	..	...	...	...	...
Myxœdema	...	...	...	...	...	...	...
Purpura	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...
Scurvy	...	...	...	...	...	...	...
Rheumatism	1	34	...	35	1	688	244
LOCAL DISEASES.							
Diseases of the Nervous System.							
Sub-section 1.							
Neuritis	...	2	...	2	...	14	21
Meningitis...	...	4	3	4	...	...	...
Myelitis	...	1	...	1	...	2	2
Hydrocephalus	...	...	...	...	...	...	...
Encephalitis	...	...	...	...	...	...	...
Abscess of Brain	...	...	...	...	...	...	...
Congestion of Brain	...	...	...	...	...	...	...
Sub-section 2.							
Apoplexy	...	...	...	...	...	...	...
Paralysis	...	...	...	...	...	1	...
Chorea	...	...	...	...	...	...	...
Epilepsy	...	2	...	2	...	4	...
Neuralgia	...	...	...	...	...	1	1
Hysteria	...	...	...	...	...	...	...
Sub-section 3.							
Idiocy	...	...	...	...	...	1	...
Mania	...	...	...	...	...	1	...
Melancholia	...	...	...	...	...	...	...
Dementia	...	...	...	...	...	...	..
Delusional Insanity	...	...	...	...	...	...	....
Diseases of the Eye.							
Conjunctivitis	...	4	...	4	...	393	181
Keratitis	...	...	...	...	...	6	1
Ulceration of Cornea	...	...	...	...	...	9	2
Iritis	...	...	...	...	...	...	...
Optic Neuritis	...	...	...	...	...	...	...
Cataract	...	1	...	1	...	6	2
Others	...	...	...	...	...	2	...
Diseases of the Ear.							
Inflammation	...	1	1	1	...	54	18
Other Diseases	...	...	...	...	...	63	21
Diseases of the Nose	...	...	...	...	...	5	1
Carried forward ...	3	325	44	326	12	3,033	1,259

TABLE II.—*continued.*

AFRICANS—*continued.*

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1925—*continued.*

Diseases.	Remaining at end of 1924.	In-Patients.			Remaining at end of 1925.	Out-Patients.	
		Admitted.	Deaths.	Total.		Males.	Females.
Brought forward	3	325	44	326	12	3,033	1,259
LOCAL DISEASES—*contd.*							
Diseases of Circulatory System.							
Pericarditis	...	...	...	...	...	2	1
Endocarditis	...	8	2	8	...	11	4
Valvular Mitral	...	17	2	17	...	16	13
Aortic	...	9	1	9	...	2	..
Tricuspid	...	...	...	...	...	...	...
Pulmonary	...	...	...	...	...	...	...
Arterial Sclerosis	...	...	...	...	...	...	...
Aneurism	...	1	...	1	...	1	...
Diseases of the Respiratory System							
Laryngitis	...	...	...	...	...	28	17
Bronchitis	4	32	2	36	2	2,170	1,025
Broncho-pneumonia	...	...	...	...	...	...	...
Abscess of Lung	...	...	...	...	...	1	2
Gangrene of Lung	...	...	...	...	...	...	...
Emphysema	...	...	...	...	...	...	...
Pleurisy	...	11	...	11	...	50	26
Asthma	...	...	...	...	...	4	...
Diseases of Digestive System.							
Stomatitis	...	...	...	...	...	85	51
Caries of teeth	...	2	...	2	...	142	62
Glossitis	...	...	...	...	...	28	9
Tonsillitis	...	...	...	...	...	14	10
Gastritis	...	7	...	7	...	319	199
Gastric Ulcer	...	...	...	...	...	1	4
Hæmatemesis	...	...	...	...	...	...	...
Dilatation of Stomach	...	...	...	...	...	...	...
Dyspepsia	...	...	...	...	...	332	212
Enteritis	...	23	3	23	...	451	168
Appendicitis	...	...	...	...	...	...	...
Cholecystitis	...	...	...	...	...	...	...
Sprue	...	...	...	...	...	...	...
Hernia	...	2	21	2	23	1	63	...
Constipation	...	2	...	2	...	1,292	585
Colic	...	9	...	9	...	20	12
Hæmorrhoids	...	...	...	...	...	8	1
Pancreatitis	...	...	...	...	...	...	...
Hepatitis—Acute	...	2	1	2	...	...	...
Abscess	...	...	...	...	...	1	...
Cirrhosis	...	2	...	2	2	...	...
Jaundice	...	...	...	...	...	...	...
Peritonitis	...	1	1	1	...	...	...
Ascites	...	3	...	3	...	1	...
Carried forward	...	9	475	58	482	17	8,075	3,660

TABLE II.—*continued.*

AFRICANS—*continued.*

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1925—*continued.*

Diseases.	Remaining at end of 1924.	In-Patients.			Remaining at end of 1925.	Out-Patients.	
		Admitted.	Deaths.	Total.		Males.	Females.
Brought forward ...	9	475	58	482	17	8,075	3,660
LOCAL DISEASES—*contd.*							
Diseases of Lymphatic System.							
Splenitis	...	...	...	...	...	2	2
Adenitis	..	10	1	10	...	33	10
Lymphangitis	...	1	...	1	...	6	1
Elephantiasis	...	8	...	8	...	9	1
Diseases of Urinary System.							
Acute Nephritis	...	18	7	18	...	35	6
Chronic Nephritis	...	4	2	4	...	6	...
Pyelitis	...	...	...	...	...	...	1
Calculus	...	1	...	1	...	...	...
Renal Colic	...	...	...	...	...	...	...
Cystitis	...	5	...	5	...	20	4
Vesical Calculus	...	...	..	...	...	...	...
Hæmaturia	...	1	...	1	...	9	1
Chyluria	...	...	...	...	...	...	...
Diseases of Generative System.							
Male Organs—							
Urethritis	...	1	...	1	...	11	5
Stricture	...	8	1	8	...	9	2
Prostatitis	...	1	...	1	...	...	...
Soft chancre	...	...	...	...	...	6	...
Condyloma	...	...	...	...	...	...	...
Hydrocele	...	11	...	11	...	38	...
Orchitis	...	3	...	3	...	25	...
Epididymitis	...	...	...	...	...	5	...
Granuloma Pudendi	...	...	...	...	...	...	...
Phimosis	...	7	...	7	...	6	...
Female Organs—							
Pyosalpinxi	...	2	...	2	1	...	...
Ovaritis	...	1	...	1	...	...	6
Ovarian Cyst	...	...	...	...	...	...	...
Endometritis	...	1	...	1	...	...	3
Displacement of Uterus ...	...	...	...	...	...	...	3
Vaginitis	...	...	...	...	...	...	2
Amenorrhœa	...	...	...	...	...	...	52
Dysmenorrhœa	...	...	...	...	...	...	19
Menorrhagia	...	...	...	...	...	...	31
Leucorrhœa	...	...	...	...	...	...	9
Abortion	...	...	...	...	...	...	4
Postpartem Hæmorrhage ...	...	1	...	1	...	...	...
Retained Placenta	...	...	...	...	...	...	1
Premature Birth	...	3	2	3	...	...	...
Puerperal Septicæmia	...	...	...	...	...	...	...
Mastitis	...	...	...	...	...	...	6
Parturition	1	23	1	24	...	...	2
Eclampsia	...	1	...	1	...	...	...
Carried forward ...	10	586	72	594	18	8,295	3,831

TABLE II.—*continued.*

AFRICANS—*continued.*

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1925—*continued.*

Diseases.	Remaining at end of 1924.	In-Patients.			Remaining at end of 1925.	Out-Patients.	
		Admitted.	Deaths.	Total.		Males.	Females.
Brought forward ...	10	586	72	594	18	8,295	3,831
LOCAL DISEASES—*contd.*							
Diseases of Organs of Locomotion.							
Osteitis	...	9	1	9	...	7	3
Arthritis	1	18	...	19	...	59	11
Bursitis	...	...	...	...	...	...	...
Myositis	...	2	...	2	...	85	14
Synovitis	...	3	...	3	...	20	7
Diseases of connective tissue.							
Cellulitis	1	18	...	19	...	198	35
Abscess	1	33	1	34	4	191	58
Fistula	1	3	1	4	...	1	...
Mycetoma	...	...	...	...	...	3	4
Diseases of the Skin.							
Ulcer	...	43	2	43	5	707	147
Eczema	...	1	...	1	...	65	19
Boil	...	3	...	3	...	46	9
Herpes	...	1	...	1	...	1	2
Psoriasis	...	...	...	...	...	...	...
Oriental Sore	...	...	...	...	...	...	...
Tinea	...	...	...	...	...	12	5
Scabies	...	...	...	...	...	241	62
Prickly Heat	...	...	...	...	...	...	...
Others	...	...	...	...	...	55	18
Injuries.							
Burns	...	1	1	1	...	11	5
General	...	14	2	14	1	...	...
Local	5	8	...	13	9	868	142
Surgical Operation.							
Tumours simple	...	2	1	2	...	9	5
„ malignant	...	4	2	4	...	1	1
Malformations	...	1	...	1	...	1	...
Poison	...	...	...	...	...	...	...
Parasites—							
Cestoda (Tœnia)	...	...	...	...	...	22	3
Nematoda (Ascaris)	...	...	...	...	...	614	496
Dracunqula	...	...	...	...	...	2	...
Ankylostomiasis	...	...	...	...	...	32	...
Filariasis	...	...	...	...	...	8	...
Schistomiasis	...	...	...	...	...	3	...
Diseases of Ductless Gland.							
Goitre	...	...	...	...	...	27	41
Total	19	750	83	767	37	11,584	4,918

APPENDIX I.

ANNUAL MEDICAL REPORT FOR THE PROTECTORATE AND GEORGETOWN, 1925.

The Protectorate Medical Headquarters consist of the Hospital and Dispensary at Georgetown, M'Carthy Island.

Staff.

1. Except for one month, a Medical Officer has been stationed in the Protectorate all the time throughout the year.

The rest of the staff consists of :—

The Dispenser,
The Interpreter-Dresser,
The Market Caretaker who also acts as Hospital labourer,
The Cook.

Financial.—The revenue derived from the small charges made for treatment and drugs to such patients as are able to pay was, £7 9*s.* 10*d.*

Health.

2. The following statements apply to the Protectorate generally, although returns sent down apply only to Georgetown Hospital.

(*a*) Europeans.

A considerable amount of sickness occurred among Europeans during the year; the more serious being Blackwater fever, Rheumatic fever and Appendicitis. In addition there was a minor out-break of Influenza of a gastric type at Kunta-ur. Several cases of sickness occurred among the European seamen on the groundnut boats. The lack of proper precaution against sun and fever can only be described as insanity. One death falls to be recorded this year from Blackwater fever.

(*b*) Africans.

1. *Officials.*—There are usually about twenty African officials at Georgetown, and a lesser number at Basse and Fatoto. Treatment in all cases, except one of Pulmonary Tuberculosis, was for minor ailments.

II. General Population.

(*a*) *Epidemic Disease.*—The occurrence of several outbreaks of Relapsing fever in South Bank Province is of serious import. This fever is much more serious than the usual form, causing a very high mortality. It has always occurred on a trade route. Remembering how the Protectorate is intersected by these roads from Senegal, the problem may well grow very menacing.

(*b*) Conditions for which treatment was mainly required and applied were the following :—

1. *Digestive Disorders.*—Diet is the main cause. Over eating and semi-starvation are interlocked.

2. *Helminthic Disease.*—The extreme prevalence of Ankylostomiasis was shown on a report sent to Bathurst, in the early months of the year. Taenia and asceris abound, but are easily recognised by the natives. It is the secret insidiousness of the ankylostome that makes it so dangerous.

3. *Respiratory Disease.*—Bronchitis occurs throughout the year. Epidemic of pneumonia occur whenever we have a cold spell. These pneumonia epidemics are extremely serious—particularly the one which occurred in January. The onset is sudden, and the progress of the disease to a fatal termination terribly rapid.

Far above everything else in seriousness is the problem of Tuberculosis. A full report of this was sent down in July with an attempt to explain some of the causes.

4. *Goitre.*—Is increasingly common. It is of the simple type, exopthalmos being very rarely seen. The problem is largely sanitary. Among towns specially affected are Kessera-Kunda and Kerewan in South Bank Province, and Sallikene and Mam-moru in M' Carthy Island Province.

5. *Trypanosomiasis.*—Several cases have been noted this year, all in the late stages.

6. *Leprosy.*—A certain number of cases were treated. These seem to exist more in the Upper River Province than elsewhere.

7. *Skin Disease.*—Among these may be mentioned Scabies, Impetigo, Ringworm, Yaws and Syphilis.

8. *Venereal Disease.*—This is so widespread as to be almost universal. The supposed infrequency of syphilis is a myth and several severe cases of tertiary lesions, nerve heart, skin, etc., have been noted.

9. *Rheumatism.*—This must of necessity account for many of the cases. The type of cotton clothing in a country with such large daily variations in temperature makes it a certainty.

10. *Wounds.*—These are mainly slight but unfortunately are too often the starting point of the Tropical ulcers, which are the cause of so much maiming and disability.

Lack of care is appalling, and was the cause of amputation of an arm in one case. The bursting of native firearms has accounted for several cases, one of which also necessitated amputation.

11. *Malaria.*—Is common, but in few cases does it become extremely serious. Pyrexias not malarial, occur often and are probably digestive in origin.

12. *Eye and Ear Disease.*—Otitis is very common while, although simple conjunctivitis is very prevalent, one sees too many cases of complete blindness. Among other causes for this must be mentioned smallpox.

The marked increase in the Out-patient and In-patient departments of Georgetown hospital are sufficient indication of progress. The provision of the motor launch " Princess Mary " has been referred to before. It makes the Protectorate Medical Service of infinitely greater usefulness than before, but even yet we are at the beginning of things. The native is losing his fear of hospital to a marked extent, but many years must elapse before the gross ignorance, fear and carelessness of human life are no longer existent.

(Signed) A. M. WILSON RAE, M.B.,

Medical Officer.

APPENDIX IIA.

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

Years.	Births.	Deaths.	Births in excess.	Deaths in excess.	Remarks.
1916	292	284	8	—	Bathurst only.
1917	307	232	—	25	do.
1918	218	617	—	399	do. *
1919	216	257	—	41	do.
1920	205	369	—	164	do.
1921	222	337	—	115	do.
1922	295	437	—	142	do.
1923	255	412	—	157	do.
1924	291	513	—	222	do.
1925	262	329	—	67	do.

Death Rate 1925, 33·17 per 1,000. * Influenza Epidemic.

Registration compulsory and reliable.

APPENDIX IIB.

INFANTILE MORTALITY FOR THE PAST TEN YEARS IN THE COLONY.

Years.	Total Births.	Deaths over 1 year and under 5 yrs.	Deaths over 1 week and under 1 year.	Deaths over 1 day and under 1 week.	Deaths under 24 hours.	Still Births.	Remarks.	Infant Mortality Rate.
1916 ..	292	46	54	10	9	22	Bathurst only.	308
1917 ..	307	22	59	13	—	30	do.	237
1918 ..	218	89	140	17	—	30	do.	724
1919 ..	216	30	64	18	4	39	do.	402
1920 ..	205	59	92	15	5	41	do.	546
1921 ..	222	60	80	25	6	52	do.	504
1922 ..	295	56	117	23	9	50	do.	502
1923 ..	255	35	98	24	5	52	do.	498
1924 ..	291	115	108	28	1	57	do.	471
1925 ..	262	29	58	15	10	48	do.	317

The birth rate 1925, 26·41 per 1,000.

Still births appear only in column 7, and are excluded from all calculations and rates.

APPENDIX IIc.

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.
1916	7,700	284	36·88	Bathurst only.
1917	8,474	332	39·18	do.
1918	8,474	617	72·81	do. *
1919	8,474	257	30·32	do.
1920	8,474	369	43·54	do.
1921	9,227 (Cens)	337	36·52	do.
1922	9,395	437	46·51	do.
1923	9,567	412	43·06	do.
1924	9,741	513	52·66	do.
1925	9,919	329	33·17	do.

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

APPENDIX III.

ANNUAL SANITARY REPORT FOR THE PROTECTORATE, 1925.

I. Staff.

At Georgetown there are

(*a*) The Dispenser, acting as Inspector of Nuisances and Meteorological Observer.
(*b*) The Market Caretaker.
(*c*) The Lamplighter.
(*d*) Six labourers.

At Kunta-ur are

Six labourers and one headman.

II. General.

Georgetown being under constant supervision is in fair sanitary state. Kunta-ur, and, to a lesser amount, Kaur and Basse, are in no such satisfactory condition. There are various causes of this, *e.g.*, the situation :—

Kunta-ur is a small plot of land in the midst of a swamp teeming with mosquitoes. To get dry land for incineration purposes one must go far from the town. The position of the incineration at present is such that with certain winds, it is a positive nuisance to the inhabitants.

Another cause equally important is the lack of proper supervision. Under present circumstances this seems unavoidable. A third cause is that at various times the population is increased enormously by Africans, brought up on the ground-nut steamers. This renders the question of nightsoil disposal a very difficult one.

The routine Public Health work done consists of—

(*a*) Antimosquito Measures.

Georgetown is generally inspected and measures taken to prevent and get rid of possible breeding places.

Mosquito Proofing exists in the Hospital, but carelessness has almost nullified any good it might do. Proofing exists in several of the European houses.

(*b*) Smallpox Measures.

Vaccination is done both in Georgetown and in the Protectorate. This is the one disease where real help is given by the natives themselves, both as regards notification and isolation. They readily come for vaccination. The thorough vaccination of all prisoners admitted to Georgetown prison has now become a routine measure.

(*c*) Refuse Disposal.

In Georgetown, the refuse is brought by the people to the mud incinerators of which there are four and then burnt. A constant watch is, however, required to ensure this. The open spaces are cleared by the sanitary gang, and grass, etc., burnt.

(*b*) Sewage Disposal.

Georgetown.—Cesspits in the yards are mostly used. The Europeans use latrines on the earth and pail system. Prison labour is used for the disposal of nightsoil by burial outside the town. This system is also used in the prison.

There is at present only one public latrine, a condition of affairs not at all satisfactory, especially as more people are coming to Georgetown in the trade season than formerly.

Kunta-ur.—Three new latrines have been built and go some small way to lighten the sanitary burden. The buckets are emptied at the incinerator. This is much too far away, and altogether unsanitary. The constant stream of people in Kunta-ur and the masses who come with the groundnut boats render the problem very difficult. It is useless to deny that the bush all round the town is more used than the latrines.

(*c*) Water Supply.

Rain water stored in tanks is used by the Europeans at the wharf towns. River water is used by Africans at Georgetown and Kunta-ur. Back from the river wells are used. These on the whole are good, although much might be done with the mouths, which are practically never sufficiently banked up nor covered over and surface contamination must be great.

The presence of these open wells near to ground, constantly soiled by excreta may account for the cases of goitre which are seen.

(*f*) Markets.

These exist at the big wharf towns and most possess meat safes. Unfortunately these are very carelessly treated, and it is much more common to find the door a few inches open, and the safe with flies inside, than tightly closed.

(Signed) A. M. WILSON RAE, M.B., M.O.

APPENDIX IV.

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

1. Name of Town.—BATHURST.

	Approximate Area.	Number of proclaimed Open Spaces.
1923	400 acres	None.
1924		
1925		

2. Population.

	Number of Natives.		Number of Europeans.		Total.
	Males.	Females.	Males.	Females.	
1923	—		—		9,567 (Estimated)
1924	—		—		9,741 „
1925	—		—		9,919 „

3. Housing.

	Number occupied by Europeans.	Number occupied by Natives.
Number of Houses—		
1923	73	3,986
1924	85	4,037
1925	79	3,566
Number of Huts—		
1923	—	725 (included as Houses)
1924	—	
1925	—	

4. Mosquito Protection of Houses.

	1923.	1924.	1925.
Number of European houses wholly mosquito-protected ...	1	1	1
Number of European houses with mosquito room	43	44	44 (Official)
Number rendered during the year wholly mosquito-protected	—	—	—
Number rendered during the year partially mosquito-protected	—	—	—

5. Erection of New Buildings during the Year.

	1923.	1924.	1925.
Number of public buildings erected with sanction as to site, construction, and relation to other buildings	6	14	7 (2 at Cape)
Number of houses erected with sanction as to site, construction, and relation to other buildings	21	5	5
Number of huts erected with sanction as to site, construction, and relation to other buildings	—	30 (approx.)	No Record
Number of houses built without sanction	No Record.		
Number of huts built without sanction			

ACTION TAKEN.

	Number of Prosecutions.		Number demolished.	
	Huts.	Houses.	Huts.	Houses.
1923	—	—	—	—
1924	—	—	—	—
1925	—	—	—	2

6. MARKETS.

	Total number.	Number paved and drained.	Number unpaved.
1923	1	1	—
1924	1	1	—
1925	1	1	—

7. SLAUGHTER-HOUSES.

	Total number.	Number paved and drained.	Number unpaved.
1923	1	1	—
1924	1	1	—
1925	1	1	—

8. LATRINES.

	For Males.		For Females.	
	Number.	Number of seats.	Number.	Number of seats.
Number of Public Latrines :—				
1923	11	64	10	61
1924	11	70	11	67
1925	11	77	11	61
Number of new Public Latrines erected during the year :—				
1923	—	—	—	—
1924	1	9	—	6
1925	—	—	—	—
Number of Public Latrines repaired during the year :—				
1923	—	—	—	—
1924	3	—	3	—
1925	3	—	3	—
Number of Public Latrines demolished during the year :—				
1923	—	—	—	—
1924	1	3	—	—
1925	—	—	—	—

	1923.	1924.	1925.
Number of Private Latrines	323	233	165
Average number of pails of nightsoil removed daily ...	325	408	428
Average number of soiled pails removed and clean pails substituted	325	408	428
Number of nightsoil men employed to clean latrines and remove excreta	26	26	28
Number of cesspools	37	32	27
Number of cesspools cleansed	As required.		
Number of new cesspools constructed during the year ...	—	—	—
Number of old cesspools abolished	8	5	5
Number of cesspools oiled regularly by Department... ...	Included in figures of Section 16		

9. Removal of Refuse.

	1923.	1924.	1925.
Number of dustbins issued	64	93	—
Number of carts at work daily to remove refuse from streets ...	10	13	12
Amount of refuse removed daily	—	—	—
Number of carts at work daily to remove refuse from yards and premises	As above		
Amount of refuse removed daily from yards and premises ...	—	—	—
Number of men employed for moving refuse	32	40	—

10. 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.		
	1923.	1924.	1925.	1923.	1924.	1925.	1923.	1924.	1925.
Buried or trenched	—	—	—	—	—	—	—	—	—
Burnt	—	—	—	319	—	55	—	—	—
Thrown into sea	325	329	428	—	—	—	—	—	2
*Otherwise dealt with ...	—	—	—	—	—	—	—	—	—
	Incombustibles 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.

1923.	1924.	1925.
—	—	—

12. Water Supply.

Nature of Water Supply.	1923.	1924.	1925.
Pipe-borne water :—			
Source (river, lake, or spring) :—			
Number of linear yards	—	—	—
Number of stand-pipes along roads	58	63	68
Number of stand-pipes in compounds and houses ...	—	10	19
Wells :—			
Public :—			
Number	43	Cement sealed, unused.	
Number with pumps protected against surface water and mosquito-protected			
Private :—			
Number	204	128	124
Number protected against surface water and mosquito-protected	Stocked with Fish.		
Tanks :—			
Public :—			
Number underground			
Number mosquito-protected and served by pumps ...			
Number above ground	Nil.	Nil.	Nil.
Number mosquito-protected			
Number of 400 gallons capacity or less			
Number above 400 gallons			

12. Water Supply—*continued.*

Nature of Water Supply.	1923.	1924.	1925.
Tanks :—			
Private :—			
Number underground	3	3	3
Number mosquito-protected			
Number above ground	184	221	221 (approx.)
Number mosquito-protected			
Number of 400 gallons capacity or less			
Number above 400 gallons	4	8	8
Nature of tanks :—			
Wood	Iron.		
Iron			
Concrete			
Barrels :—			
Number	All fish stocked or covered.	No record.	
Number mosquito-protected			

13. Drainage.

Nature of Drainage.	Public.	Private.
Masonry drains :—		
Lineal yards of Masonry drains :—		
1923	1,000 (approx.)	—
1924	1,000 (approx.)	—
1925	1,000 (approx.)	—
Lineal yards reconstructed during the year :—		
1923	Nil	—
1924		
1925		
Lineal yards repaired during the year :—		
1923	Nil	—
1924	30 yds. (approx.)	—
1925	700 yds.	—
Lineal yards of new drains constructed during the year :—		
1923	Nil	—
1924		
1925		
Earth drains or ditches :—		
Number of linear yards of ditches cleaned :—		
1923	750 (approx.)	—
1924	750 (approx.)	—
1925	750 (approx.)	—
Number of linear yards of ditches dug and graded :—		
1923	—	—
1924	2,000 (approx.)	—
1925	2,000 (approx.)	—
Average frequency of clearing ditches of grass :—		
1923	Once in 2 weeks during rains.	—
1924		
1925		

14. Clearance of Undergrowth, Long Grass and Jungle.

	1923.	1924.	1925.
Number of square yards of weeds, grass, and vegetation cut and removed	2,500	3,000 (approx.)	3,000 (approx.)
Average frequency of clearance of rank vegetation on same area	Once a month during rains.		

15. Excavations and Low-Lying Land.

	1923.	1924.	1925.
Number of pools and excavations	Numerous	Numerous	Numerous
Number of excavations filled up			
Amount of low-lying and marsh land raised and drained ...	No record kept.		
Number of pools, marshes, streams, &c, fish-stocked... ...	Numerous	Numerous	Numerous
Number of cubic yards of material used for filling up pools and excavations	800 (approx.)	15,000	17,000
Number of persons fined for making new excavations ...	—	—	—
Average number of men daily employed in filling up pools, &c.	No special men.		

16. Oiling.

	1923.	1924.	1925.
Number of oilings of drains	968	1,013	1,134
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	14	14 (4 during rains and 3 special in rains.)	12

17. Inspections and Prosecutions.

	1923	1924.	1925.
Number of inspectors employed	7	7	6
Number of inspections of houses	51,771	53,004	49,960
Number of houses where larvæ were found	165	238	240
Number of notices served to remove conditions causing the breeding of larvæ	188	255	268
Number of persons fined for having mosquito larvæ on premises	155	223	238
Number of notices served to remove insanitary conditions on premises	593	288	491
Number of persons fined for not removing insanitary conditions after notice	—	2	2
Number of soda and aerated water factories inspected ...	—	—	—

WATERLOW AND SONS LIMITED, LONDON, DUNSTABLE AND WATFORD.