Report on the medical and health services / The Gambia.

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THE GAMBIA.

REPORT ON THE MEDICAL AND HEALTH SERVICES FOR THE YEAR 1952.

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REPORT ON THE MEDICAL AND HEALTH SERVICES FOR THE YEAR 1952.

1. NOTES OF INTEREST.

(*a*) *Medical and Health Units.*

(i) Victoria Hospital Bathurst. Work in connection with the new Victoria Hospital progressed during the year. Some of the wards of the old Hospital had to be demolished to make way for part of the new building. Although patients were transferred to the old Military Hospital, the demolitions resulted in a shortage of beds during the second half of the year. Ward accommodation will continue to be inadequate until the new hospital is opened, which event is anticipated about the middle of 1953.

(ii) Maternity Health Centre, Basse. This new building was completed, and was opened by His Excellency the Governor in December. A Sister of the Roman Catholic Mission who holds a State Midwife's Certificate is in charge and the Centre at present contains 9 beds. More than this number could be accommodated if necessary.

(iii) Health Centre, Mansakonko. Owing to the lack of water supply and light installations, it was not possible to open this centre in 1952. Living quarters were, however, completed and a medical officer was posted in November. Apart from general public health work, his duties included the visiting of Dispensaries in Central and Western Divisions.

(iv) Mental Hospital. Renovations and alterations were carried out on the remand prison at Box Bar for conversion into a Mental Hospital to replace the existing institution, which was in many ways unsuitable for the purpose. The new Hospital which has accommodation for 24 patients was opened towards the end of the year.

(v) Tuberculosis Sanatorium. Work was commenced on the little used Infectious Diseases Hospital for its conversion into a Sanatorium for the treatment of cases of Tuberculosis. The advent of a Sanatorium for the segregation and treatment of cases of tuberculosis will be welcomed since it is impossible and undesirable to treat patients suffering from this disease in Victoria Hospital. The alterations were not completed by the end of the year but it is hoped that the Hospital with beds for 32 patients will be ready for opening in 1953. Some difficulty may however be experienced in recruiting staff for this institution.

(*b*) *Nutrition Conference.*

A nutrition conference under the auspices of the Commission for Technical Co-operation in Africa south of the Sahara (C.C.T.A.) was held at the Medical Research Council Unit at Fajara from the 19th to 26th November. This conference which discussed the nutrition of the African mother and child was succeeded by the F.A.O./W.H.O. Joint Expert Committee on Nutrition which considered the subject from their point of view,

The Conference was attended by delegates of the Governments of Belgium, Belgian Congo, France, Portugal, Southern Rhodesia, United Kingdom, Bechuanaland, Basutoland, The Gambia, Gold Coast, Nigeria, Uganda, British East African territories and the East African High Commission. Observers from F.A.O., W.H.O., U.N.I.C.E.F., and the International Children's Centre were present.

Clinical, pathological, biochemical and dietary aspects of nutrition were discussed. The relation of nutrition to other diseases, treatment of cases and social aspects were considered.

The Conference, the first of its kind in the Gambia, was welcomed and the discussions and demostrations stimulated further interest in nutritional problems.

(*c*) *Laboratory Services.*

By courtesy of the Government of Sierra Leone, Dr. J. D. Reid, Pathologist from Freetown visited the Gambia in March and checked the work of the Laboratory at Victoria Hospital, Bathurst. His report indicates that the present staff is inadequate to deal efficiently with the work, there being only one trained technician and two learners.

Dr. Reid recommended that, if no pathologist is to be appointed, at least three trained assistants would be required. Training should be carried out at one of the West African Laboratories, followed by a refresher course of three months during each tour of two years at a suitable laboratory.

Equipment was checked and advice given on routine work. Routine bacteriology was not considered a practical proposition with the present staff and accommodation. All histology will need to be done at Freetown as at present.

Dr. Reid's report makes it clear that one of the drawbacks is inadequacy of suitably trained personnel. Arrangements have been made for the laboratory assistant to attend a refresher course in Freetown in 1953, and provision has been made for the recruitment of an additional laboratory technician. It is considered that when the new Victoria Hospital is completed and running to a capacity of nearly 200 beds, there will be a strong case for the appointment of a full time Pathologist.

(*d*) *Human Nutrition Research Unit, Field Research Station.*

Professor Platt was on the station at Fajara until April, when he returned to the United Kingdom. He returned to the Gambia in November for the Nutrition Conference.

Investigations continued at Fajara into nutritional disorders and infections, particularly with malaria parasite. Research workers at Fajara for periods of the year under review included Dr. O Lindan, Dr. J. Done, Miss H. M. Dewey, Dr. Rosemary Jackson, Dr. I. A. McGregor, Dr. J. A. McFadzean, Dr. B. Balfour, Dr. R. A. Webb and Dr. W. Minning.

Dr. McGregor continued investigations at Keneba and residual spraying was continued throughout the year by the Sanitary Inspector stationed there.

Dr. R. A. Webb worked at Fajara under the auspices of the Agricultural Research Council, continuing work on the chemical composition of plants in relation to the soil.

(*e*) *Gambia Branch, British Red Cross Society.*

Regular weekly practices were held throughout the year for trained members and courses in Hygiene and First Aid were given. Members continued to help at the Victoria Hospital on Sunday mornings and First Aid teams were in attendance at all important public functions, which included the five-day Inter-colonial cricket match. A short "refresher course" in First Aid was held during the Protectorate Teachers' Conference for those in charge of First Aid boxes in Protectorate schools. Courses of instruction in First Aid were given to the 4 Boys Links and the Girls Link in Bathurst (Junior Red Cross).

A Garden Fete was held at Government House and the sum of £158 raised. During the Fete, the Junior members gave demonstrations of First Aid and physical exercises. Gifts of foodstuffs were made at Christmas time to the Hospitals, Clinics, Leper Colony and other institutions.

The River Ambulance Launch, for which a donation of £3,000 was given by the Scottish Branch of the society, was not completed by the end of 1952, but should be ready for service early in 1953.

(*f*) *Teachers' Training College.*

This College, formerly situated at Georgetown in the MacCarthy Island Division was moved to Yundum in September. The buildings at Georgetown were always regarded as of a temporary nature only, but the new premises at Yundum are of permanent status. The extent and accommodation of the new premises provides scope for additional teaching and it is anticipated that in the near future, the College will extend its facilities to other Departments and not for training of teachers only.

A grant from the Farmers' Fund is being made for a new Clinic of the Health Centre type at Lamin in Western Division. In addition to catering for the local people, the clinic will also look after the medical needs of the people and their families who will reside at the nearby training college and settle in the surrounding area.

(*g*) *Visitors.*

The undermentioned visited the Gambia during the year:—

Dr. J. R. C. Buchanan, Principal Medical Officer, Colonial Office, Professor B. G. Macgraith, Professor of Tropical Medicine, Liverpool, University. Dr. B. O. L. Duke, Colonial Medical Research Studentship Dr. Mara, World Health Organisation, Malariologist. Mr. W. A. A. Wilson, School of Oriental and African Studies. Mr. P. E. U. Idundum, Medical Laboratory Technician, Nigeria.

II. ADMINISTRATION.

A. STAFF.

Medical Officers.

Dr. E. J. Bury went on leave in March and Dr. S. H. O. Jones acted as Director of Medical Services until August when he was appointed Director of Medical Services on Dr. Bury's transfer to Nigeria. Dr. Jones is the first Gambian to hold this appointment.

Dr. J. F. McCourt arrived on first appointment in February to take over the post of Medical Officer of Health which had been vacant since Dr. Hadden's transfer to Nigeria in July, 1951.

Dr. G. E. Porter returned from leave and study leave in January and resumed duty in Victoria Hospital. He became Medical Officer in charge Victoria Hospital following on Dr. Jones' appointment as Director of Medical Services.

Dr. T. S. Derola returned from leave and study leave in January having obtained his D.T.M.& H. (Lond.), and took over at Bansang Hospital from Dr. M. R. Witney who was on leave from June to October on compassionate grounds.

Dr. A. E. Carroll left on leave in July and was away for the remainder of the year.

Dr. J. A. Mahoney was on duty throughout the year, and the arrival of Dr. S. J. Palmer in November filled the vacancy in establishment.

Nursing Sisters.

Miss J. A. M. Henderson, Senior Nursing Sister went on leave and study leave in August, and Miss M. M. Shepherd who was on duty throughout the year, acted in her absence. Miss C. N. Michie was away from January to June and Miss M. W. Crawford left in October on leave. Miss P. M. Cook was on leave from April to October and Miss K. J. D. Shouksmith the other Health Sister returned from leave in March.

Miss J. S. T. Williams and Miss H. M. Forster, two Gambians, having obtained their S.R.N. and S.C.M. in England, arrived on first appointment as Nursing Sisters in October. This resulted in an increase in establishment of one, but the staff is still inadequate to meet the increased demand for medical attention, and more Doctors and Nurses are required if adequate service is to be given.

Sanitary Superintendents.

Mr. R. A. J. Walton, Senior Sanitary Superintendent, was on leave from January to June. Mr. J. A. Watt who was seconded to the Bathurst Town Council in January, went home on sick leave in March and was not fit to return until December. Mr. J. G. Rees went on leave in August. Mr. J. L. Roscoe arrived on transfer from Nigeria in September, to fill the vacancy in establishment.

Dental Surgeon.

Mrs. P. M. S. Mitchell arrived in the Gambia on first appointment in June, to fill the post of dental surgeon which had been vacant since November, 1951 when Mr. A.M. N'Jie was invalided.

The report of Major D. Gollan, Senior Dental Officer in Freetown, who visited the Gambia in November and December of 1951 indicated that a proper dental service was an urgent need, and the arrival of an officer to fill the vacant post was welcomed.

Junior Service.

The arrival of an X-Ray technician in April, who had been training in Lagos to take over routine X-Ray work in Victoria Hospital helped to relieve the already overworked staff.

The Chief Dispenser returned from Nigeria in August, having completed a 12 month course in Phermacy.

A 1st Grade Sanitary Inspector spent 4 months in England on a British Council Bursary gaining experience in the practical and admmistrative duties of a Sanitary Inspector.

Three new Sanitary Inspectors who possessed the School Certificate (Senior Cambridge) were recruited during the year. Previous recruits had no such qualifications and it is hoped that future candidates will have similar educational standards to facilitate better training and a higher standard of efficesncy.

B. LEGISLATION.

List of Ordinances and subsidiary Legislation affecting the Medical and Health Services enacted and made during the year, 1952:—

ORDINANCES.

Serial No.	*Date.*	*Short Title.*	*Provision.*
		Ordinances.	
—	3rd March, 1952	West African Institute for for Trypanosomiasis Research (Gambia Status) Ordinance, 1952.	An Ordinance to provide the status and functions, including the powers and duties within the Gambia of the West African Institute for Trypanosomiasis Research and the W. A. I. T. R. Managing Committee which were established in Nigeria by the W.A.I.T.R. Ordinance 1950 of Nigeria and for purposes connected therewith.
1.	1st July, 1952	Liquor Licences Ordinnace, 1952	An Ordinance to regulate the sale of intoxicating liquor.
		Regulations.	
17.	6th November, 1952	Protectorate (Building) (Amendment) Regulations, 1952	No person to occupy or use any building without written pemission of the Commissioner.
		Orders.	
23.	18th September, 1952	Minimum Wage (Unskilled Manual Labour) Order 1952	To replace the Minimum (Unskilled Manual Labour) Order, 1951.
		Bye-Laws.	
2.	18th September, 1952	Liquor Licences (Bathurst) Bye-Laws 1952.	To replace The Sale of Liquor (Bathurst) Bye-Laws, 1949.

C. FINANCE.

	1951 *Estimated.*	1951 *Actual.*	1952 *Estimated.*
	£	£	£
Revenue	4,000	3,637	3,000
Expenditure	79,447	80,502	94,666

1952 Estimates include special expenditure on Equipment for new Victoria Hospital of £2,500.

EXPENDITURE ON MISCELLANEOUS SERVICES.

	£	£	£
Contribution to Medical Organisation	346	162	346
Sanitary Services	8,850	8,438	—

Sanitary services now done by Bathurst Town Council with asistance by block grant estimated at £6,000 for 1952.

THE COLONY OF THE GAMBIA.

	£	£	£
Total Revenue	1,055,500	1,144,285	1,289,610
Total Expenditure	1,163,373	1,171,028	1,433,367

Estimated percentage expenditure on Medical and Health Services—6.6%.

III. PUBLIC HEALTH.

A.—HOSPITAL, DISPENSARY AND CLINIC STATISTICS.

The number of new cases and of attendances at hospitals and minor medical units continues to rise as shown by the following figures.

(*a*) HOSPITALS.

Year.	*Total admissions.*	*Outpatient new cases.*	*Total outpatient attendances.*
1948	3,707	31,657	59,208
1949	3,890	31,728	49,619
1950	4,369	34,363	52,052
1951	4,906	41,437	62,106
1952	4,505	47,142	63,802

(*b*) HEALTH CENTRES AND DISPENSARIES.

Year.	*Number of units.*	*New cases.*	*Total attendances.*
1948	30	47,823	115,874
1949	33	51,331	124,389
1950	34	51,101	126,481
1951	43	87,687	215,857
1952	43	101,414	255,636

(*c*) ANGLICAN MISSION DISPENSARIES.

1950	2	4,567	10,642
1951	3 and 1 Mobile Dispensary Van	5,222	12,797
1952	3 and 1 Mobile Dispensary Van	4,701	12,408

(*d*) MATERNITY AND CHILD WELFARE CLINICS.

Year.	*Number of Centres.*	*Ante Natal attendances.*	*Child Welfare attendances.*	*Total attendances.*
1948	7	4,714	16,219	20,933
1949	8	5,683	22,018	27,701
1950	9	7,131	26,166	33,297
1951	13	10,832	45,425	56,284
1952	12	11,811	48,479	60,290

B. MEDICAL UNITS.

(*a*) *Victoria Hospital, Bathurst.*—There were 3,335 admissions during the year, which is 312 less than in 1951. This decrease was due to lack of Ward accommodation caused by the demolitions made necessary by the rebuilding programme. A total of 307 major operations with no deaths and 494 minor operations with no deaths, was performed.

(*b*) *Bansang Hospital.*—During the year, 1,170 patients were admitted to Hospital. There were 397 major operations performed, with a total of 4 deaths and 84 minor operations with no deaths.

(*c*) *Minor Medical Units.*—Apart from the opening of the Maternity Health Centre at Basse already referred to, there has been no significant change in the minor medical units and the position remains as in 1951.

One midwife was posted to Gunjur and one to Kuntaur during the year. Kuntaur, although a Health Centre, did not have a resident midwife until this year.

C. LABORATORY SERVICES.

Consideration is being given to the report of Dr. Reid, Senior Pathologist, Sierra Leone which has been referred to in a previous section. An additional laboratory technician was recruited for training during the year. Inadequate staff and lack of facilities result in many laboratory tests remaining undone or being sent to Freetown.

The following is a summary of the work done in the clinical laboratory in Victoria Hospital during 1952:—

Gland Punctures	128
Urine examinations	11,582
Nasal Smears	56
Khan Tests	8,511
Vaginal Smears	1,465
Sputum examinations	389
Blood examinations	4,622
Stool examinations	2,136
Autopsy	14

D. DENTAL SERVICES.

The Dental Officer arrived in June on first appointment and the following is a summary of the work done from June to December:—

Total visits	1,770
Extractions	953
Fillings	446
Dentures	28
Operations	21
Gum treatments	142
Socket treatments	150
X-rays	45
Other treatments	115

E. GENERAL REMARKS.

Health of Expatriates: (Europeans, Lebanese and Syrians). There were 79 inpatients and 252 outpatients at Victoria Hospital. There were no deaths in hospital. At Bansang Hospital there were 25 inpatients. One death occurred.

Respiratory diseases, skin and subscutaneous infections, malaria and infections of the ear were the commonest causes for seeking medical advice.

Health of Africans: Disorders of the digestive tracts were collectively the commonest reason for seeking medical attention and 28,300 (21,546)* cases were recorded. This figure includes 13,390 cases of simple constipation which accounts for a large proportion of attendances at outstation dispensaries. Diseases of Respiratory tract collectively numbered 15,165 (15,919). The total number of cases of

Malaria was 9,243 (9,377) of which 4,971 were hospital returns, the remainder being from outstation dispensaries, where diagnosis is made clinically. Cases of "Rheumatism" treated numbered 12,237 (10,261).

* 1951 figures given in brackets.

F. EPIDEMIC AND ENDEMIC DISEASES.

(1) An outbreak of smallpox occurred in the Protectorate during the year. The first cases occurred in a village near Basse in the Upper River Division. The source of the infection appears to have been a man who came to this village from neighbouring French territory. This man subsequently became ill and died. Approximately 12 days later smallpox made itself apparent in the inhabitants of the village. Spread to neighbouring villages occurred and despite efforts to prevent movement of people, the disease spread to most of the Upper River Division. Despite close inspection of persons leaving Upper River Division by road and river transport, cases of smallpox eventually occurred in the remainder of the Protectorate and in Bathurst, but by then better organisation and vaccination campaigns were under way and relatively few cases appeared outside the Upper River Division.

In all there were 222 cases with 8 deaths, giving a fatality rate of 3.8%. This low rate indicates that the disease was generally relatively mild in type. The fact that the outbreak did not assume larger proportions was due mainly to intensification of the vaccination campaign. Regular vaccination tours by the Health Service staff are continuing.

(2) *Cerebro-Spinal Meningitis.* There were 14 cases with 7 deaths recorded suring the year. The majority of the cases occurred in the Upper River and MacCarthy Island Divisions.

(3) *Trypanosomiasis.* A total of 1,499 cases was recorded during the year. There were 4 deaths among 158 cases treated in Hospitals and the remaining 1,341 cases were diagnosed clinically at the outstation dispensaries.

Dr. M. P. Hutchinson of the West African Institute of Trypanosomiasis Research completed his survey of human trypanosomiasis in the Gambia, with special reference to the Upper River Division, during the year. A summary of his excellent report is given in Appendix I.

(4) *Tuberculosis.* During the year 393 cases of Respiratory Tuberculosis were recorded, as compared with 236 in 1951, and 158 in 1950. In Bathurst 33 deaths from this cause were registered.

Pulmonary Tuberculosis in the Gambia, with infiltration and cavitation is similar to the adult form of the disease found in European countries, and the incidence of the disease is steadily increasing. The acute miliary and fulminating type as seen in native peoples is uncommon. Extra-pulmonary tuberculosis is much less frequent than the pulmonary type.

A very real fear of the disease and a knowledge of its infectious nature exist among the people, who are becoming more and more tuberculosis conscious.

During the year tuberculin tests and fluoroscopic examinations were carried out by the Medical Officer of Health. The routine adopted was as follows:—

(1) Tuberculin Diagnostic Jelly was first used, the skin having been cleaned and gently stroked with fine abrasive paper.

(2) Negative reactors to the Jelly test were given O.1c.c. of 1 in 100 dilution of Old Tuberculin, by intradermal injection.

(3) Positive reactors to either test were encouraged to come for fluoroscopic examination of their lungs.

Difficulties were encountered in carrying out these tests. Some of those tested particularly the younger children were somewhat apprehensive of the intradermal test and some failed to return for reading of results. In addition tuberculin testing had not been attempted previously to any great extent, and the procedure was regarded with a certain amount of wariness.

The results of the tuberculin tests carried out on school children were as follows:—

Of 438 school children tested with Diagnostic Jelly, 226 gave a positive reaction, 145 were negative and 67 did not return for inspection.

Of the 145 negative reactors to the Jelly, 38 gave a positive reaction to the 1 in 100 dilution of Old Tuberculin, 43 were negative and 64 were not inspected.

Thus, 264 of the original 438 children tested gave a positive reaction to either the first or second test. 181 of these positive reactors came for fluoroscopic examination of their lungs and 3 of these were found to have radiological evidence of tuberculosis.

The following table giving age groups gives a brief summary of the above:—

Age.	5—10 *years.*	10—15 *years.*	15—20 *years.*	*Total.*
Number tested	61	277	100	438
Positive Reactors to 1st or 2nd Test	26 (42.6%)	159 (57.4%)	79 (79%)	264 (60.2%)
Number having Fluoroscopic examination	18	105	58	181
Number showing evidence of Tuberculosis	2	—	1	3
No. evidence of Tuberculosis...	16	105	57	178

In addition to school children, adults and children not attending school were similarly examined.

Of 406 persons having the first test, 162 were positive, 215 were negative and 29 were not inspected. 104 of the 215 negative reactors were positive to the intradermal test, 101 were negative and 10 were not inspected.

Thus of the initial 406 persons, 266 (65.5%) were positive to the first or second tests. 232 of these reactors came for X-ray examination, 19 of whom were found to have radiological evidence of tuberculosis.

The following tables give the above facts by age and sex:—

Adults and Non-school children.

MALES.

Age Group.	*Number Tested.*	*Number positive to 1st or 2nd Test.*	*Number having fluoroscopic exam.*	*Number showing evidence of T.B.*	*No. evidence of Tuberculosis.*
Under 1 year	3	—	—	—	—
1 — 10	42	16	16	3	13
5 — 10	8	2	3	—	3
10 — 15	2	—	—	—	—
15 — 20	30	27	24	2	22
20 — 30	57	48	43	3	40
30 — 40	15	13	9	1	8
40 — 50	9	7	7	—	7
50 — 60	3	3	2	1	1
60 and over	3	2	—	—	—
Total Males all ages.	172	118 (68.6%)	104	10	94

FEMALES.

Age Group.	*Number Tested.*	*Number positive to 1st or 2nd Tests.*	*Number having fluoroscopic exam.*	*Number showing evidence of T.B.*	*No. evidence of T.B.*
Under 1 year	1	—	—	—	—
1 — 5	40	14	13	2	11
5 — 10	28	8	7	2	5
10 — 15	21	13	13	1	12
15 — 20	36	29	24	2	22
20 — 30	42	37	33	—	33
30 — 40	35	26	18	1	17
40 — 50	12	8	8	—	8
50 — 60	8	7	7	—	7
60 and over	11	6	5	1	4
Total Females all ages	234	148 (63.2%)	128	9	119

It should be noted that no claims can be made for the above figures, since they do not constitute a random sample. In fact, since some of these examined were known contacts of cases of Tuberculosis, the sample must be regarded as prejudiced to some extent.

The response to these initial attempts to engender the idea that something can and will be done for Tuberculosis patients was not entirely discouraging, since apart from Tuberculin Jelly tests carried out on school children in 1951, no attempts were made to determine the incidence of the disease. It is proposed to carry out further tuberculin tests at a later date and with the advent of the Sanatoruim for the treatment of cases, it is hoped that something will have been achived to alleviate the fear and help remove the stigma which people attach to this disease.

5. *Venereal Diseases:* Syphilis and Gonorrhoea constitute an ever increasing problem in the Gambia, and one which involves many administrative difficulties. Apart from the social aspect, lack of propaganda material in a suitable form is a major difficulty.

(*a*) *Syphilis.* There were 743 cases treated at hospitals and 250 cases at dispensaries during the year; a total of 993 as compared with 815 in 1951.

(*b*) *Gonorrhoea:* While opinions vary as to the true incidence of syphilis, largely due to the inadequate laboratory facilities which make diagnosis questionable even at Hospitals, and also due to the relatively few primary manifestations of the disease which are seen, there can be little doubt that Gonorrhoea is prevalent. A total of 3155 cases (2982)* was treated during the year, 1097 at Hospitals and 2058 at dispensaries. The accuracy of diagnosis at outstations is, however, questionable.

Malaria. A total of 9243 cases was recorded. This figure should be regarded with caution, as although the incidence is known to be high, a considerable number of these were not confirmed by microspocic examination and in the absence of this check a percentage of non-malarial pyrexias is probaly included.

It was envisaged that residual spraying with Gammexane would be carried out in Bathurst in 1953, but it appears doubtful that the necessary funds will be available. The present anti-malarial measures which are mainly larvicidal are inadequate, to cope with the mosquito population.

Leprosy: The hope expressed in last year's report that the Protectorate District Authorities and the Farmers' Fund controlled by the Gambia Oilsseed Marketing Board, might provide funds for starting a leper settlement near Mansakonko in 1952 has so far not materialised. Since the present settlement at Allatento is in many ways unsatisfactory, it is felt that an improved settlement is needed for isolation of cases of a disease which is prevalent througout the territory.

General: It will be appreciated that the state of the public health as evidenced by patients treated at Government units is far from being a complete picture. The great bulk of sickness is seen by unqualified staff in outstations units, where the diagnostic range is necessarily limited. Recognition of most diseases of epidemic importance

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* 1951 figures in brackets.

seen, can however be accepted as tolerably accurate. The cosmopolitan atmosphere of the Gambia imposed by its shape and environment leads to additional pitfalls. An unascertainable number of French subjects, indistinguishable from Gambians, continue to seek treatment in this territory, many of them known to be sufferers from Leprosy and Sleeping Sickness. Again native systems of medicine retain some degree of popularity, often observed by the department as tragic end—results serving to swell the total of hospial deaths.

IV. VITAL STATISTICS.

No reliable statistics are available outside Bathurst and the following figures and tables refer to Bathurst only. The population of Bathurst according to the 1951 Census was 19,602 and the estimated population for 1952 is 19,863.

(i) Births and Deaths—Actual Numbers.

Estimated population (Bathurst 1952)	19,863
Live Births	710
Still Births	72
Deaths	298
Deaths under 1 year	61

(ii) Number of Births and Deaths in Bathurst 1948 to 1952 showing Natural Increase.

Year.	*No. of Live Births.*	*No. of Deaths.*	*Natural Increase.*
1948	662	362	300
1949	666	343	323
1950	803	356	447
1951	780	353	427
1952	710	298	412

The above are corrected figures.

(iii) Births and Death Rates (corrected) in Bathurst 1948 to 1952.

	1948.	1949.	1950.	1951.	1952.
Birth Rates: live births per 1,000 population ...	35	35	42	40	36
Death Rates: deaths per 1,000 population ...	19	18	18	18	15
Infant Mortality Rates: deaths under 1 year per 1,000 live births	130	107	101	117	86
Still Birth Rates: still births per 1,000 total births	78	77	66	67	92

NOTE: 1947 rates calculated on 21,000 population.
1948—50 rates calculated on 19,000 population.
1951 rates calculated on 19,600 (census) population.
1952 rates calculated on 19,863 (estimated) population.

(iv) Number of Deaths by age and sex (exclusive of stillbirths) in Bathurst in 1952.

Age Group.	*Male.*	*Female.*	*Total.*
Under 1 year	39	26	65
1— 5	20	19	39
5—10	5	4	9
10—15	1	2	3
15—20	3	—	3
20—25	2	2	4
25—35	19	15	34
35—45	18	5	23
45—55	30	9	39
55—65	11	6	17
65—75	18	8	26
75—85	7	12	19
85 and over	3	10	13
not stated	2	2	4
All ages	178	120	298

It will be seen from the above table that well over one-half of the deaths in the 0—5 age group occur during the first year of life.

(v) Deaths under 1 year of age (exclusive of stillbirths) by detailed age and sex in Bathurst 1952.

Age Group.	*Male.*	*Female.*	*Total.*
Under 1 Month	23	12	35
Under 1 day	6	6	12
1 Day—under 1 wk.	10	2	12
1 Wk.—under 1 mth.	7	4	11
1 Mth.—under 6 mths.	6	7	13
6 Mths.—under 1 year	8	5	13
Total Deaths under 1 year.	37	24	61

Over one-half of the deaths under 1 year occurred during the first month of life, and of these neo-natal deaths approximately two-thirds occurred during the first week after birth.

(vi). Diseases causing High Morbidity.

NOTE: These figures are those given in Hospital and Dispensary returns for the whole country in 1951.

(*a*) INSECT BORNE DISEASES:—

Malaria	9,243
Trypanosomiasis	1,499
Filariasis	237

(*b*) INTERNAL INFECTIONS:—

Dysentery	569
Ascariasis	5,897
Ankylostomiasis	363

(*c*) LUNG INFECTIONS:—

Bronchitis	3,427
Pneumonia	657
Respiratory Tuberculosis	393

(*d*) VENEREAL DISEASES:—

Gonococcal Infections	3,155
Syphilis	993

(*e*) MISCELLANEOUS:—

Yaws	8,585
Otitis Media & Mastoiditis	1,635
Eye Infections	4,841
Skin Infections	2,404
Diseases of Teeth & Gums	2,016
Non Toxic Goitre	881
Schistosomiasis	749

(vii) Diseases causing High Mortality showing the number of deaths recorded in Bathurst in 1952.

Respiratory Diseases	60
Diseases of Heart, Circulatory System and old age ...	45
Pulmonary Tuberculosis	33
Premature birth, congenital malformations, birth injuries, and diseases of early infancy	27
Malaria	17
Sepis and other surgical causes	16
Cancer and other Malignant diseases	13
Tetanus	4
Trypanosomiasis	4

The above are corrected figures. Persons from the Protectorate who died in Bathurst are not included.

V. HYGIENE & SANITATION.

(i) *Mosquito Control.* Routine anti-mosquito measures continued throughout the year under the control of the Medical Officer of Health.

The Anopheline room densities recorded in Bathurst for the year were as follows:—

January	0.071
February...	0.058
March	0.009
April	0.003
May	0.024
June	0.202
July	0.113
August	0.519
September	0.730
October	0.601
November	0.069
December	0.027

New drains were laid by the Public Works Department in Bathurst, but unfortunately, the falls provided in many instances were not adequate to render the drains self cleansing. During the rains heavy mosquito breeding was discovered in these drains. Little, unfortunately, can now be done to improve the gradients, owing to Bathurst being only a few feet above sea level at its highest point. It is felt, however, that much of the difficulty would have been overcome if the drains had been of the covered type at the outset.

(ii). *Yellow Fever Control.* No cases of Yellow Fever were reported during the year. Aedes breeding was found in a flamboyant tree in Bathurst during the year, (identified from hatched out larvae). Continued vigilance is therefore necessary. Owing to the stock of Yellow Fever vaccine being low, only intending travellers and airport personnel were immunised during the year.

(iii). *Rodent Control.* The block system of pre-baiting using Zinc Phosphide as a poison was continued in Bathurst and proved satisfactory.

(iv). *Fly Control.* D.D.T. 5% in kerosene was used for public dustbins, the refuse disposal ground, the public latrines in Bathurst and Cape St. Mary.

B. GENERAL MEASURES OF SANITATION.

(i). *Cleaning Services.* In Bathurst, refuse is collected from public dustbins by lorries fitted with tipping apparatus and disposed by controlled tipping at a site two miles outside the town. Swamp reclamation proceeded as a result of controlled tipping.

The cleansing services of Bathurst, including refuse collection and disposal and collection and disposal of night-soil previously operated by the Health Department were taken over by the Bathurst Town Council on the 1st January, 1952. A Sanitary Superintendent and a Sanitary Inspeetor were temporarily seconded from the Health Service to assist in the work.

A second cesspool emptier arrived during the year and this is now used by the Town Council to empty the overflow tanks of the Static Tank latrines in Bathurst.

Towards the end of the year, an experiment into the manufacture of compost from the town refuse and night soil was undertaken by the Agricultural Department at a site about 3 miles outside the town.

The experiment proved successful and it is envisaged that similar work will be undertaken on a larger scale in 1953.

In the Protectorate there is a limited amount of night soil collection, and disposal is by trenching or emptying into an Otway pit. Disposal of refuse in the larger villages is by incineration or controlled tipping.

(ii). *Inspection of Nuisances.* This is carried by Sanitary Inspectors. The number of notices served and prosecutions during the year were as follows:—

Bathurst	Abatement Notices Served	157
	Number of Prosecutions	45
Kombo St. Mary Division	Abatement Notices Served	103
	Number of Prosecutions	8
Protectorate	Abatement Notices Served	638
	Number of Prosecutions	134

(iii). *Health Propaganda.* Sanitary Inspectors continue to give lectures on Hygiene and Sanitation to School Children and the adult population in their districts.

When the new teacher's training college at Yundum becomes well established, it is hoped that a menber of Health staff will give lectures on Hygiene and Sanitation to the teachers as part of their training.

C. FOOD HYGINE.

(i). Bakeries, Restaurants, Bars, Hotels, and Premises for the sale of Fresh Food are regularly inspected by Health Officers, and certificates of fitness issued if hygienic standards are complied with.

(ii). Reorganisation of Albert Market, in Bathurst was carried out early in the year in an effort to relieve congested conditions. While some improvement in hygienic standards was effected, conditions in the market will continue to be unsatisfactory until additional accommodation for vendors is forthcoming.

(iii). In Bathurst all meat was examined directly after slaughter as a routine and fish landed was examined before sale. Similar inspections were carried out by Sanitary Inspectors in the Protectorate, although supervison is more difficult as each Inspector has a large district to cover.

The following are the meat inspection returns for 1952:—

	Cattle slaughtered	*Sheep and Goats slaughtered*	*Pigs slaughtered*	*Approx. amount condemned*
Bathurst	2,758	579	796	12,559 lbs.
Kombo St. Mary ...	286	133	65	1,483 ,,
Protectorate	1,401	586	12	1,328 ,,

The chief causes of condemnation of meat were cysticercosis cellulosae and bovis.

VI. PORT HEALTH ADMINISTRATION.

No infected or suspected cases of dangerous infectious diseases arrived by sea or air during the year.

Number of ships which arrived at Bathurst sea port was 193 as compared with 169 in 1951 and 224 in 1950.

The number of aircraft arriving at Yundum airport during the year was 249.

All aircraft were sprayed with aerosols containing pyrethrum on landing at Yundum and immediately prior to departure. No passengers were refused admittance to the Gambia for lack of certificates, but persons entering the Colony without International Certificates of Inoculation against Yellow Fever and Vaccination against Smallpox are required to be inoculated or vaccinated within one week of arrival.

VII. MATERNITY AND CHILD WELFARE.

The rebuilding of the New Street Clinic in Bathurst was completed during the year and living accommodation provided for the Bathurst District Midwife in the compound. All the clinic work in Bathurst was concentrated at New Street.

The new Maternity Block at Basse was completed and opened at the end of the year.

One midwife was posted to Gunjur and one to Kuntaur during the year. Kuntaur although a Health Centre did not have a resident midwife until this year.

(i). CASES AND ATTENDANCES.

Centre.	Antenatal Clinics. New Cases.	Antenatal Clinics. Attendances.	Child Welfare Clinics. New Cases.	Child Welfare Clinics. Attendances.
Bathurst	1,180	4,370	918	12,017
Bakau	141	803	175	2,880
Serrekunda	—	—	80	2,036
Brikama	322	1,204	815	7,172
Essau	139	586	516	3,043
Gunjur	179	694	497	6,117
Lamin	80	415	104	2,632
Sukuta	378	1,547	480	6,890
Bansang	200	534	1,091	2,200
Georgetown	124	381	209	506
Kuntaur	120	266	249	413
Basse	476	1,011	1,615	2,573
Totals 1952	3,339	11,811	6,749	48,479
Totals 1951	3,071	10,832	6,179	45,452
Totals 1950	1,734	7,131	2,735	26,166
Totals 1949	1,390	5,683	2,768	22,018
Totals 1948	1,193	4,714	1,913	16,219

(ii). Results of domiciliary confinements attended by Government midwives were as tabulated below:—

	Live Births.	Still Births.	Total.
Bathurst	319	8	327
Bakau	109	3	112
Brikama	94	8	102
Sukuta	192	7	199
Bansang	21	8	29
Kuntaur	8	—	8
Georgetown	10	—	10
Basse	74	9	83
Totals 1952	827	43	870
Totals 1951	649	24	673
Totals 1950	654	28	682
Totals 1949	525	38	563
Totals 1948	454	12	476

(iii). The following table gives particulars of all births attended by private midwives and by the Government service in Bathurst:—

	Live Births.	*Still Births.*	*Total.*	*Percentage Still Births.*
Private Midwives	206	20	226	8.8%
Government District Midwives ...	420	22	442	4.9%
Maternity Ward Victoria Hospital				
Bathurst cases	219	33	252	13.0%
Kombo cases	19	8	27	29.6%

All difficult and complicated cases in Bathurst are admitted to Victoria Hospital, where the still birth rate is high in consequence.

APPENDIX I.

SURVEY OF HUMAN TRYPANOSOMIASIS IN THE GAMBIA WITH SPECIAL REFERENCE TO UPPER RIVER DIVISION BY DR. M. P. HUTCHINSON OF THE WEST AFRICAN INSTITUTE OF TRYPANOSOMIASIS RESEARCH.

SUMMARY.

A survey was undertaken between November, 1951 and April, 1952, to assess the present incidence of human trypanosomiasis in the Gambia. In the Upper River Division as nearly as possible the entire population was surveyed between December. 1951 and March, 1952, when some 45,000 were examined at 84 centres. Spot surveys were made in the remainder of the country and a further 9,691 people were examined from various centres.

Examination was by palpation for enlarged glands of the neck, followed by puncture of suspicious glands. Thick blood films were examined from any with suggestive symptoms or appearance—even in the absence of palpable lymph nodes. Lumbar puncture was reserved for suspected cases showing no peripheral trypanosomiasis. Each person was questioned as to his or her state of health.

Those patients with Trypanosomiasis were given a sterilizing dose of Pentamidine Isethionate and referred to the nearest dispensary for treatment.

Available evidence suggests that Trypanosomiasis has been present in the Gambia for at least 100 years. Between 1902 and 1925, few cases were reported yearly although these came from widely scattered areas over the lower 260 miles of the river. By 1936, reported new cases had increased from about 20 to nearly 2,000 per year. The attendance figures for all diseases for hospitals and dispensaries did not increase to the same degree, suggesting that there was an absolute increase in sleeping sickness as well as an apparent increase due to improved attendance. From 1936 to the present day, the reported new cases have remained steady about an average of 1,800 cases per year. During the same period, attendances for all diseases have increased threefold.

Except in the maritime region,only two species of tsetse have been described—G. Palpalis and G. Morsitans, and the former is limited to the vicinity of the main river and the side creeks or drainage depressions. The incidence of sleeping sickness corresponds very closely with the distribution of G. Palpalis, suggesting that the latter is the only vector of any importance.

In the Upper River Division, G. Palpalis is confined for the greater part of the dry season to the vicinity of the larger Bolons and certain limited stretches of the River Gambia itself. The people's dependence on wells for water supply, the siting of villages away from the habitant of G. Palpalis, the absence of a fishing industry and the rarity of canoe travel—all help to reduce what otherwise might be a very close and dangerous contact between man and fly.

The results of the survey in the Upper River Division are shown in the following table:—

District	1951 *Census.*	No. *examined.*	*No. Sleeping Sickness.*	*Percentage Sleeping Sickness.*
Sandu	6,131	6,329	24	0.37%
Wuli (less 20 villages) * ...	8,372	8,824	5	0.05%
Fulladu East	28,298	23,676	228	0.96%
Kantora	7,284	6,207	4	0.06%
Total U.R.D.	50,085	45,036	261	0.57%

* These 20 villages were omitted since in the light of the findings in the rest of Wuli, they were not considered to be exposed to any danger of infection.

Generally there is a low incidence of Sleeping Sinkness throughout the Division, but the cases are unevenly distributed. Hyper-endemic foci of infection (5—10%) exist along the middle stretches of three Bolons, where conditions of fly consentration and village siting have resulted in a sustained personal contact between man and fly for the greater part of the year. Only here have conditions been ideal for moderately rapid cyclical transmission. For the remaining Bolons, variable conditions are operative to modify the man fly contact to a more impersonal level or to one of shorter seasonal duration.

Man fly contact is most dangerous during the dry season and early rains when the fly concentration favours a personal relationship. Around the main river plain, man-fly contact is short, being largely confined to the late wet season. Such contact is of little importance in the transmission of trypanosomiasis even though it may temporarily appear intense. Conditions do not favour rapid cyclical transmission and only a very low level of infection (less than 0.6%) is present.

Although risk is greater at the wharf towns, it is considerably less than along the Bolons owing to the seasonal variation in fly population and also human activity.

Over the greater part of Upper River Division, the siting of villages outside the circumscribed habitats of G. Palpalis results in absence of the disease.

The majority of cases of Trypanosomiasis in the Gambia run a typically chronic course with slow and insidious onset, prominent glandular enlargement and slow progression. A few cases run a more rapid course. Because of the frequently poor level of nutrition and high incidence of other parasitic diseases, the presence of trypanosomiasis constitutes a more severe menace than its apparent mildness would suggest.

The various forms of direct control measures of Trypanosomiasis are discussed. Entomological control by clearing in the Upper River Division is recommended. The expansion of the present Pilot Scheme to embrace the three Bolons which provide dry season habitats for the vector, G. Palpalis, should eradicate these hyperendemic foci and prevent any further spread along the river plain. Limited clearing along the river banks will protect the wharf towns. In the river flats region, attention should be concentrated on the limited dry season foci along the edge of the high ground. Farming should be encouraged in the cleared areas. Where this is not practicable, it is recommended that maintenance should be the responsibility of the local villages.

In the middle reaches of the country, clearing is again recommended where dangerous foci exist. In certain areas, clearing around village wells is advocated, where a dense grove of trees is present and the extra moisture encourages a thicket where small foci of fly may lay up at the end of the dry season resulting in close personal man-fly contact.

No time need be spent in considering the villages set back from the river valley; odd cases will cease to occur in these distant villages, once control is achieved along the edge of the river plain.

In Western Division, entomological control by clearing is only practicable in certain limited areas owing to the wide dispersal of fly.

Medical control is discussed under the headings of Surveys and Dispensary Treatment. Two small survey teams are recommended since in the present survey it is only possible to broadly indicate the distribution of sleeping sickness and to assess the general level of infection. Further full surveys would reveal other small dangerous foci which require immediate attention. Although the Gambia is well provided with a chain of dispensaries, they will never succeed in eradicating the disease, and will barely keep it in check in times of epidemic spread. Dispensary attendances always lag a long way behind the actual spread of the disease.

Mass prophyllaxis with Pentamidine is considered but would not be profitable on a large scale in the Gambia owing to the fluctuation and movement of population. This method should be reserved for the immediate control of a small epidemic focus while more permanent control measures are being mobilised.

APPENDIX II.

1952 Diseases Classified according to intermediate List of Causes of Morbidity and Mortality.

	Cause Group	Datailed List Number	In Patients	In Patients Deaths	Out Patieuts	Dispen-saries	Total
A1.	Tuberculosis of Respiratory System	001—008	71	10	174	148	393
A2.	Tuberculosis of Meninges & Central Nervous System	010	6	1	—	—	6
A3.	Tuberculosis of Intestines, peritoneum and Mesenteric Glands	011	2	—	—	—	2
A4.	Tuberculosis of bones and joints	012, 013	5	—	1	—	6
A5.	Tuberculosis, all other forms	014—019	4	—	—	—	4
A6.	Congenital Syphilis	020	21	8	—	—	21
A7.	Early Syphilis	021	66	3	589	250	905
A8.	Tabes Dorsalis	024	3	—	—	—	3
A9.	General Paralysis of insane	025	4	—	1	—	5
A10.	All other syphilis	022,023,026—029	—	—	59	—	59
A11.	Gonococcal infection	030—035	218	—	879	2,058	3,155
A12.	Typhoid Fever	040	1	—	—	—	1
A16.	Dysentery, all forms	045—048	44	2	74	451	569
A18.	Streptococcal sore throat	051	56	—	79	—	135
A19.	Erysipelas	052	3	—	—	—	3
A20.	Septicaemia and pyaemia	053	4	1	—	—	4
A21.	Diphtheria	055	1	1	—	—	1
A22.	Whooping Cough	056	4	—	48	—	52
A23.	Meningococcal infections	057	3	2	—	11	14
A25.	Leprosy	060	17	1	44	330	391
A26.	Tetanus	061	19	6	—	7	26
A27*a*	Yaws	073	31	1	709	7,845	8,585
A31.	Smallpox	084	7	—	18	197	222
A32.	Measles	085	1	—	1	—	2
A34.	Infectious Hepatitis	092	5	—	1	47	53
A37.	Malaria	110—117	518	13	4,453	4,272	9,243

APPENDIX II—(Contd.)

	Cause Group	Detailed List Numbers	In Patients	In Patients Deaths	Out Patients	Dispensaries	Total
A37*a*.	Trypanosomiasis	121	21	4	137	1,341	1,499
A38.	Schistosomiasis	123	7	—	258	485	749
A40.	Filariasis	127	32	1	205	—	237
A41.	Ankylostomiasis	129	38	—	166	159	363
A41*a*.	Ascariasis	130.0	31	—	963	4,903	5,897
A42.	Other diseases due to helminths	124,126,128,130.1,130.3	183	—	1,029	233	1,445
A43.	All other diseases classified as infective and parasitic	036–039,049,054,063–072 074, 086–090,093,095,096 120–122,131–138	47	1	121	2,308	2,476
A44–A57.	All malignant neoplasms	140—199	27	1	14	—	41
A60.	Benign neoplasms and neoplasms of unspecified nature	210—239	10	—	19	40	69
A61.	Non-toxic goitre	250—251	4	—	147	730	881
A62.	Thyrotoxicosis with or without goitre	252	—	—	18	—	18
A63.	Diabetes Mellitus	260	1	1	1	—	2
A64.	Avitaminosis and other deficiency states	280—286	31	3	55	7	93
A65	Anaemias	290—293	22	—	162	—	184
A66.	Allergic disorders; all other endocrine, metabolic and blood diseases	240–245,253,254,270–277 287–289,294–299	31	1	106	—	137
A67.	Psychoses	300—309	2	—	9	12	23
A68.	Psychoneuroses and disorders of personality	310–324,326	4	—	12	—	16
A69.	Mental Deficiency	325	—	—	5	—	5
A70.	Vascular lesions affecting central nervous system	330—334	2	1	—	—	2
A71.	Non-meningococcal meningitis	340	3	2	—	—	3
A73.	Epilepsy	353	11	1	17	50	78
A74.	Inflammatory diseases of eye	370—379	135	—	786	3,920	4,841
A75.	Cataract	385	—	—	74	—	74
A77.	Otitis Media & Mastoiditis	391—393	18	—	326	1,291	1,635

APPENDIX II— (Contd.)

	Cause Group	Detailed List Numbers	In Patients	In Patients Deaths	Out Patients	Dispensaries	Total
A78.	All other diseases of the nervous system and sense organs	341-344,350-352,354-369, 380-384,386, 388-390,394-398	38	—	315	358	938
A79.	Rheumatic Fever	400—402	1	—	—	—	1
A81.	Arteriosclerotic and degenerative heart diseases	420—422	3	—	—	—	3
A82.	Other diseases of heart	430—434	82	13	194	—	276
A84.	Hypertension without mention of heart	444—447	8	—	1	—	9
A85.	Diseases of arteries	450—456	5	1	—	—	5
A86.	Other diseases of circulatory system	460—468	17	2	70	160	247
A87.	Acute upper respiratory infections	470—475	18	1	725	450	1,193
A88.	Influenza	480—483	24	—	372	257	653
A89.	Lobar Pneumonia	490	46	1	20	—	66
A90.	Bronchopneumonia	491	38	16	2	—	40
A91.	Primary atypical, other and unspecified pneumonia	492,493	95	6	104	352	551
A92.	Acute Bronchitis	500	181	—	1,742	—	1,923
A93.	Bronchitis, chronic and unqualified	501—502	37	—	1,472	—	1,509
A95.	Empyema and abscess of lung	518,521	3	—	1	—	4
A96.	Pleurisy	519	28	—	83	—	111
A97.	All other respiratory diseases	511-517,520,522-527	39	—	540	—	579
A98.	Diseases of teeth and supporting structures	530—535	15	—	763	1,238	2,016
A99.	Ulcer of stomach	540	9	—	18	—	27
A100.	Ulcer of Duodenum	541	—	—	1	—	1
A101.	Gastritis and Duodenitis	543	13	—	243	—	256
A102.	Appendicitis	550—553	22	—	7	—	29
A103.	Intestinal obstruction and Hernia	560,561,570	282	4	468	404	1,154
A104.	Gastro-enteritis and colitis, except diarrhoea of the new born	571,572	93	4	1,241	2,872	4,206
A105.	Cirrhosis of liver	581	17	8	—	—	17
A106.	Cholelithiasis and Cholecystitis	584,585	6	—	14	—	20

APPENDIX II—(Contd.)

	Cause Group	Detailed List Numbers	In Patients	In Patients Deaths	Out Patients	Dispensaries	Total
A107.	Other diseases of digestive system ...	(536–539,542,544,545,573–580,582,583,586,587)	99	4	2,132	18,401	20,632
A108.	Acute Nephritis	590	7	—	1	—	8
A109.	Chronic, other and unspecified nephritis ...	591—594	60	9	102	—	162
A110.	Infections of Kidney	600	16	1	376	—	392
A111.	Calculi of urinary system	602,604	3	1	—	—	3
A112.	Hyperplasia of Prostate	610	2	—	3	—	5
A113.	Diseases of breast	620,621	5	—	31	—	36
A114.	Other diseases of genito-urinary system ...	601,603,605–609,611–617,622–637	212	3	1,314	360	1,886
A115.	Sepsis of pregnancy, childbirth and the puerperium	640,641,681,682,684	8	2	—	—	8
A116.	Toxaemias of pregnancy and the puerperium	642,652,685,686,	54	2	—	—	54
A117.	Haemorrhage of pregnancy and childbirth ...	643,644,670–672	11	2	—	—	11
A118.	Abortion without mention of sepsis or toxaemia	650	86	—	236	335	657
A120.	Other complications of pregnancy, childbirth and the puerperium	645–649,673–680 683,687–689	50	—	200	—	250
A121.	Infections of skin and subcutaneous tissue	690—698	149	1	998	1,257	2,404
A122.	Arthritis and spondylitis	720—725	21	1	269	1,486	1,776
A123.	Muscular rheumatism and rheumatism unspecified	726,727	65	—	2,561	9,611	12,237
A124.	Osteomyelitis and periostitis	730	16	—	19	—	35
A125.	Ankylosis and acquired musculoskeletal deformities	737,745–749	4	—	1	—	5
A126.	All other diseases of skin and musculoskeletal system	700–716,731–736 738–744	285	3	1,839	3,720	5,844
A128.	Congenital malformations of circulatory system	754	1	1	—	—	1

APPENDIX II—(Contd.)

	Cause Group	Detailed List Numbers	In Patients	In Patients Deaths	Out Patients	Dispensaries	Total
A129.	All other congenital malformations	750–752,753,755–759	6	2	22	—	28
A130.	Birth injuries	760,761	3	3	—	—	3
A131.	Postnatal asphyxia and atalactasis	762	4	4	—	—	4
A132.	Infections of newborn	763—768	32	2	391	—	423
A134.	All other defined diseases of early infancy	769,771,772	17	5	100	—	117
A135.	Ill-defined diseases peculiar to early infancy and immaturity unqualified	773—776	10	8	—	—	10
A136.	Senility without mention of psychosis ...	794	2	1	—	—	2
A137.	Ill-defined and unknown causes of morbidity and mortality	780–793,795	68	4	309	18,358	18,735
	"E" CODE. Alternative Classification of Accidents, Poisonings, and Violence (External Cause).						
AE138.	Motor Vehicle accidents	E810—E835	6	—	—	—	6
AE139.	Other transport accidents	E800–E802,E840–E866	18	—	—	—	18
AE140.	Accidental poisoning	E870–E895	6	—	2	2	10
AE141.	Accidental falls	E900–E904	39	1	1,260	—	1,299
AE142.	Accident caused by machinery	E912	1	—	5	—	6
AE143.	Accident caused by fire and explosion of combustible material	E916	29	4	186	—	215
AE144.	Accident caused by hot substance, corrosive liquid, steam and radiation	E917,E918	14	—	6	—	20
AE145.	Accident caused by firearm	E919	18	—	2	—	20
AE147.	All other accidental causes	E910,E911,E913–E915, E920–E928,E930–E965	38	2	613	516	1,167
AE148.	Suicide and self inflicted injury	E970–E979	2	—	—	—	2
AE149.	Homicide and injury purposely inflicted by other persons (not in war)	E980–E985	3	—	27	—	30

NOTE: Where a complete "A" or "AE" cause group has been omitted, no case has been diagnosed during the year under that heading.