

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

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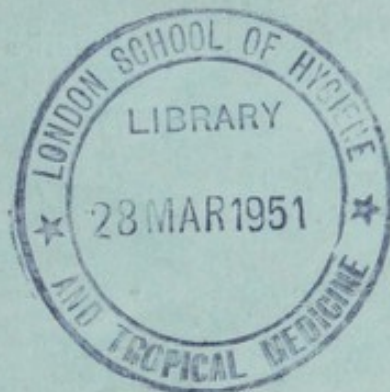


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THE GAMBIA

REPORT ON THE MEDICAL AND HEALTH  
SERVICES FOR THE YEAR, 1949.



BATHURST  
PRINTED BY THE GOVERNMENT PRINTER,  
1950.



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# REPORT OF THE MEDICAL AND HEALTH SERVICES FOR THE YEAR 1949.

## I. IMPORTANT EVENTS OF THE YEAR.

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

(i) Rebuilding of the Victoria Hospital, Bathurst. The rebuilding of the Victoria Hospital started on its first phase and by the end of the year the mortuary has been completed; the service block, consisting of laundries, stores, kitchens and garages nearly completed and the steel framework of the main block partially erected. In order that the work could be done the old mortuary, matron's office and the existing laundry had to be demolished.

The meteorological instruments that were in the hospital compound were removed and the Meteorological Service now supplies daily readings of temperature and rainfall to the Daily News Bulletin.

(ii) In the Upper River Division, native authorities have offered to provide funds for building a small maternity hospital at Basse. The Roman Catholic Mission will provide a fully trained Sister who is a certificated midwife to Superintend it.

(b) *The Colonial Development Corporation* established its poultry farm during the year. The conversion of a large area of forest between Lamin and Brikama into well kept farm land should facilitate the Sanitary control of the adjacent Yundum Airport. The Corporation made no separate medical provision for the care of its staff, and as over 70 Europeans, over 30 Bahamians and about 600 Gambians were employed an additional burden was placed on the existing medical services. It is expected that the Corporation will employ one medical officer who in co-operation with the Medical Department will be responsible for medical treatment and general hygiene.

(c) *The Human Nutrition Research Unit.* This unit of the Medical Research Council has continued work at Fajara Field Research Station, and the Agricultural and nutritional experiment of the Field Working Party at Genieri is still functioning. Towards the end of the year, Professor Platt proposed that the Medical Department should be associated with the Human Nutrition Unit in a "Medical Pilot Scheme" for Protectorate villages. The object of the scheme is to devise methods for reducing or eliminating parasites in a village population and to measure the effect on its health and efficiency. Preliminary surveys were made in Villages in Western Kiang District.



(d) *The British Red Cross Society.* The Society established a local branch during the year, after a visit in March from Miss. Whittingham, Overseas Director. Financed by the Headquarters of the Society Miss. Ingle arrived in October to organise the branch.

Funds have been raised locally, and already classes for Jolloff Women and Junior Links have started. First aid classes will begin in 1950. It is hoped that the Red Cross may provide a river ambulance.

(e) *Bathurst Drainage.* The first stage in the surface water drainage scheme has been completed by the erection of bund and sluice locking out tidal water from the swamp to the west and northwest of the town. The bund was not closed until July, after the onset of the rains, but good results were noticed at once and although no work has yet started on the drains in the town, the lowering of the water table reduced the amount of standing water there and the ground is much less swampy.

## II. ADMINISTRATION.

### A. STAFF.

Dr. C. W. F. Mackay, O.B.E., Director of Medical Services, proceeded on leave on the 10th July prior to retirement. During the first half of the year he had also performed the duties of Medical Officer of Health until Dr. T. P. Eddy returned from study leave on 7th July. Dr. Eddy acted as Director for the rest of the year after Dr. Mackay left the Colony.

*Medical Officers.* Dr. W. E. Hadden returned from leave on 5th November and acted as Medical Officer of Health for the rest of the year. Dr. S. G. Gordon was transferred to Nigeria on 6th April at the expiration of his leave. Dr. G. E. Porter proceeded on leave on 7th October. Dr. S. H. O. Jones and Dr. E. F. B. Forster were on duty throughout the year. Dr. F. A. Pearson assumed duty in the Gambia on 11th February on loan from Nigeria.

*Dental Officer.* Mr. A. M. N'Jie was on duty throughout the year.

*Entomologist.* Mr. R. W. H. Campbell was on leave from 7th February to 16th July.

*Senior Nursing Sister.* Miss. J. A. M. Henderson was transferred from Nigeria on the 7th March and assumed the post which had been vacant for over a year.

*Nursing Sisters.* Miss. M. M. Wordley returned from leave on the 8th May. Miss. M. M. Shepherd was on leave from the 20th May to the 12th October. Miss. P. M. Hill proceeded on leave on 31st August prior to transfer. Miss P. M. Cook, Health Sister, and Miss M. W. Crawford assumed duty on first appointment on 11th February and 8th July respectively. Miss C. N. Michie was on duty throughout the year.



*Senior Sanitary Superintendent.* Mr. C. W. Cottier proceeded on leave on the 25th July prior to retirement.

*Sanitary Superintendents.* Mr. T. MacCarthy proceeded on leave prior to resignation on 3rd January. Mr. J. G. Rees proceeded on leave on 31st August. Mr. J. A. Watt assumed duty on first appointment on 23rd January. Mr. R. A. J. Walton was on duty throughout the year.

*Junior Service Staff.* The posts of Chief Dispenser and Storekeeper were up-graded to Special Grade and 1st Grade respectively at the beginning of 1949. Mr. R. W. H. Phillot and Mr. M. O. Manga filled the posts. One 1st Grade post for a Sanitary Inspector was created and Mr. M. A. Secca promoted. Four new 2nd Grade posts for Sanitary Inspectors were also created, bringing the establishment for 2nd Grade Sanitary Inspectors up to six.

The Gambia Women War Workers Medal awarded annually to the best probationer Nurse completing training was won by Nurse A. S. Joiner and the Medal and the various certificates gained by other members of the Department at the end of the year were presented at the usual annual ceremony at Government House.

## B. LEGISLATION.

List of Ordinances and subsidiary Legislation affecting the Medical and Health Services made during 1949:—

Serial No.	Date.	Short Title.	Provisions.
<b>ORDINANCES</b>			
Nil			
<b>REGULATIONS</b>			
4	22nd March 1949	Quarantine (Aerial Navigation) Regulations 1949.	To consolidate and amend procedure by Health Officers on the arrival and departure of aircraft.
6	24th February 1949	Kombo Saint Mary (Building) (Amendment) Regulations 1949.	To amend the principal regulations.
13	11th October 1949	Market and Slaughter House (Amendment) Regulations 1949.	Provision of clean clothing for meat handlers.
16	28th December 1949	Protectorate (Buildings) (Amendment) Regulations 1949.	Consolidation and additions to places listed in Schedule.
<b>ORDERS.</b>			
9	31st May 1949	Public Health (Applications) Order 1949.	Application of Section of principal ordinance to further districts.

Serial No.	Date.	Short Title.	Provisions.
<b>NOTIFICATIONS.</b>			
3	21st April 1949	—	Declaring Bathurst an infected local area in respect of smallpox.
10	25th November 1949	—	Revised list of established Protectorate markets.

### C. FINANCE.

#### MEDICAL AND HEALTH SERVICES.

	1948 Estimated.	1948 Actual.	1949 Estimated.
Revenue ... ..	£ 5,500	£ 5,358	£ 5,000
Expenditure ... ..	75,801	70,045	82,366

#### MISCELLANEOUS SERVICES.

Contributions to Medical Organisations	£208	£ 209	£ 206
Sanitary Services ... ..	—	7,131	6,700

#### COLONY.

	1949 Estimated	1949 Revised
Total Revenue ... ..	£1,050,000	£ 967,200
Total Expenditure ... ..	1,098,812	1,112,200
percentage expenditure on Medical and Health Services = 8.5		

### D. MEDICAL SUPPLIES.

All Departmental Stores are now located in the new Headquarters and this has simplified storekeeping. Most drugs and dressings are now easily obtainable and the serious shortages of preceding years have been overcome, except for dental materials which are in short supply. Rising costs make it difficult to estimate expenditure. Yellow Fever vaccine and vaccine lymph for smallpox are obtained from Lagos.

## III. PUBLIC HEALTH.

### A. HOSPITAL AND DISPENSARY STATISTICS.

The numbers of patients treated in the past five years are compared on the next page.



## HOSPITALS.

Year.	Total Admissions.	Out-patient New Cases	Total-Outpatient Attendances
1945	2,371	—	57,918
1946	2,903	—	37,830
1947	3,594	34,284	57,664
1948	3,707	31,657	59,208
1949	3,890	31,728	49,619

## DISPENSARIES AND HEALTH CENTRES.

Year.	New cases	Total Attendances
1945	36,171	—
1946	52,608	—
1947	53,754	138,145
1948	47,823	115,874
1949	51,331	124,389

— Not available.

## B. MATERNITY AND CHILD WELFARE STATISTICS.

(Total Attendances)

Year.	No. of Centre	Child Welfare	Ante-Natal	Total
1945	6	—	—	20,341
1946	7	—	—	21,755
1947	7	—	—	24,186
1948	7	18,150	5,907	24,057
1949	8	22,018	5,683	27,701

— Not available.

## C. MEDICAL UNITS.

The Victoria Hospital in Bathurst is in the process of being rebuilt. Bansang hospital continues to serve the two eastern Divisions. No new dispensaries were opened, but new buildings replaced the temporary ones in Kuntuar, Georgetown and Farafeni. Three new sub-dispensaries were opened during the year, at Yundum village served by the Dispenser stationed at Yundum Airport; at Brifu served by the Dispenser at Bajakunda; and at Bakadaji served from Diabugu.

There are now five Health Centres; Bakau, Brikama, Kuntaur, Georgetown and Basse. Kuntaur, although completed as a Health Centre has not yet had a Nurse-midwife posted there. It is hoped that the Central Division



Headquarters at Mansakonko will have a Health Centre completed in 1950. Child Welfare and Ante-Natal clinics are held in Bathurst (2), Bakau, Brikama, Sukuta, Georgetown, Bansang and Basse.

The Anglican Mission maintains dispensaries in the Upper River Division at Kumbul and Kristikunda under the supervision of Mr. W. Haythornthwaite.

#### GEOGRAPHICAL LIST OF MINOR MEDICAL UNITS.

Division.	Health Centre.	Dispensary.	Sub-Dispensary.
Colony Western	Bakau	—	—
			Sukuta (from Bakau)
	Brikama	Yundum Airport	Yundum Village
		—	Gunjur, Faraba- Banta Besseh Kassang Bondali Kuntair Sika
Central	Bwiam	—	Salikene
	Bafuloto	—	Illiassa
		Kerewan	N'Jau
		Farafeni	Pakali N'Ding
MacCarthy Island		Kaur	Bureng (from Dankunku)
		Kaiaff	Kudang
	Kuntaur	—	—
	—	Dankunku	—
Upper River	Georgetown	—	Brikama-Ba
	Basse	Diabugu	Bakadaji
	—	Badjakunda	Brifu

Sanitary Inspectors are posted at Bathurst and in the following stations in the Colony and Protectorate:—

Colony	...	...	...	Bakau, Serekunda
Western Division	...	...	...	Barra, Brikama, Yundum, Bwiam
Central Division	...	...	...	Jawarra, Kaur
MacCarthy Island Division				Kuntaur, Bansang, Georgetown
Upper River Division	...			Basse, Diabugu, Fattoto.

One Sanitary Inspector was attached during the second half of the year to the M.R.C. Pilot Scheme and worked in Fajara and in Western Kiang (Central Division).

#### D. LABORATORY SERVICE, VICTORIA HOSPITAL.

The one second grade laboratory technician, Mr. J. V. Coker is assisted by dresser-dispensers in training. These fourth year trainees after three

months in the laboratory are able to use a microscope to examine blood films, stools, urine and gland juice. There has been an increase of work in the laboratory as the Army has asked for routine examination of certain specimens from all recruits.

The following summary indicates volume of work done:

Parasitology	...	...	...	...	6,168	examinations
Serology	...	...	...	...	2,553	,,
Other blood examinations	...	...	...	...	745	,,
Bacteriological smears	...	...	...	...	2,466	,,
Miscellaneous	...	...	...	...	2,271	,,
Autopsies	...	...	...	...	19	,,
					14,222	

#### E. GENERAL REMARKS.

*Expatriates' Health.* The number of persons in this class at risk remains at approximately 300 Europeans and 300 Syrians and there was no serious illness among them. Clinical malaria still persists and many cases are confirmed by blood slide despite the use of suppressive paludrine. Two European children contracted mild smallpox, although previously vaccinated.

*Health of Indigenes.* Dispensary facilities are now within reach of the majority of the population of approximately 270,000. Attendances at dispensaries increased and there is no doubt that the population appreciate the work done by the dispensers.

(i) *Diseases.* Disorders of the digestive tract still head the list of diseases with "rheumatism" second and malaria third. During the year 6,832 cases of malaria were diagnosed as compared with over 10,000 in 1948, but as most of the cases are diagnosed clinically by dispensaries no reliance can be placed on these figures.

(ii) *Trypanosomiasis.* A total of 1,828 cases were diagnosed in out-stations and hospitals. Only those in hospital are confirmed by gland puncture or blood examination. If the hospital cases are omitted the system of diagnosis is the same in all dispensaries and the incidence of the disease in the four divisions can be compared by off setting the trypanosomiasis cases against the total new cases of all diseases in each division. This gives the following figures and shows that Western Division is the most heavily infected:—

Division	Total new cases. in Dispensaries.	Tryps. Cases.	Cases of Tryps. per 1,000 new cases
Western	10,471	1,038	99
Central	14,483	231	16
MacCarthy Island	10,736	127	12
Upper River	9,996	91	9



(iii). Cerebo-spinal Fever. Only 23 cases were diagnosed this year against 47 last year. There have been no extensive epidemics in this or in surrounding territories for the past four years.

(iv) Smallpox. Sixty-nine cases of smallpox were diagnosed in Bathurst and district. Bathurst was declared by Notification to be an infected local area in respect of smallpox on 21st April, and declared to be free on 29th July. The smallpox was of a mild nature and there were no deaths. Vaccination of the population at risk was intensified.

(v) Tetanus. There were 19 cases of tetanus in Bathurst against 44 in the previous year.

(vi) Tuberculosis. An average number of 223 cases of respiratory tuberculosis were notified during the year and suggests that the incidence is not increasing. A number of tuberculosis cases were followed up in Bathurst and the chief points found were:—

(a) No contact cases of tuberculosis were found in compounds on clinical examination followed by X-ray of suspected cases.

(b) Clinically recognised tuberculosis usually leads to death in six months.

(c) It seems likely that many cases break down into active disease through the imposition of the extra strains of urban life.

(vii) Leprosy. No fresh statistics can be given; a few cases seek medical aid.

(viii) Venereal Disease. Gonorrhoea remains the most prevalent venereal disease, a total of 2,561 cases seeking treatment. Dr. Robert Lees consultant on the Panel of Medical Visitors visited the Gambia in April and advised that a health survey, conducted by a V.D. Specialist, laboratory technician and nursing sister, lasting about 18 months should be carried out. The Bathurst Social Services Committee could not see the need for expatriate staff and considered the work could be done with local staff. V.D. work is still restricted to routine hospital treatment for persons who report.

(ix) Yaws. Most of the 4,949 cases, 200 less than in 1948, occurred in the Protectorate, but until environmental conditions are improved it is felt that yaws will persist.

The Appendix classifies the number of diseases diagnosed in hospitals by medical practitioners and at dispensaries by dispensers according to the Intermediate list of 150 causes for Tabulation of Morbidity and Mortality of the Sixth Revision of the International lists of Diseases and causes of Death (World Health Organisation 1948). It is hoped by using this classification that the medical statistics of this country will in time be more valuable. It is realised that at present there are many sources of inaccuracies in compiling the statistics. Where a complete "A" or "A.E" cause group has been



omitted no case has been diagnosed during the year under that heading. It has not been possible to use the " N " Code, Nature of Inquiry, this year as the returns here are not rendered in a suitable way.

#### IV. VITAL STATISTICS IN BATHURST.

No reliable vital statistics are obtainable outside Bathurst. The defects pointed out in the Bathurst figures in previous Annual Reports are slowly being remedied. On 31st December 1949 the Medical Officer of Health was appointed Chief Deputy Registrar for Births and deaths and, now having access to both notifications of births from midwives and registration of births and deaths, he will be able to check the registers and prompt registration when forgotten. It is felt that the population figure of 21,152 obtained at the 1944 census is now inaccurate because the population of Bathurst has decreased as the wartime influx into the town has subsided. An approximate estimate of 19,000 inhabitants has been made for 1948 and 1949. It remains to be seen what the population is at the next Census, which is due in 1951. A revised birth and death rate will have to be made then for the years since 1947, when population decrease was noticeable.

##### (1) Births and Deaths—Actual Numbers.

	1949 crude.	1949 corrected. *
Bathurst Population ... ..	19,000 (approximately)	
Live births ... ..	673	666
Still births ... ..	62	56
Deaths ... ..	437	343
Deaths under 1 year ... ..	82	71

\*Corrected for births and deaths of Bathurst residents occurring outside Bathurst as far as can be ascertained and excluding births and deaths among visitors occurring in Bathurst. (In 1947 and 1948 correction was only made by excluding deaths of non-Bathurst residents).

##### (2) Births and Deaths rates (non-Bathurst residents excluded).

	1947	1948	1949
Birth rate, live births per 1,000 population ...	34	35	35
Death rates, deaths per 1,000 population ...	21	19	18
Infant Mortality Rate, deaths under 1 year per 1,000 live births ... ..	120	130	107
Still birth rate, still birth per 1,000 total births ...	97	78	77

##### (3) Crude Births and Death rates 1945—1949 inclusive.

	1945	1946	1947	1948	1949
Birth rate ... ..	26	35	34	35	36
Death rate ... ..	19	23	23	22	23
I.M. Rate ... ..	154	103	138	148	122
Still birth Rate ... ..	121	107	102	78	84

N.B. 1945—1947 rates calculated on 21,000 population  
1948 & 1949 rates calculated on 19,000 population



The Infant Mortality Rate rose to 148 in 1948 (crude) and 130 (corrected). This was attributed to greater accuracy of registration of still births as previously many infant deaths were registered as still births. The Still birth rate fell to 78 in the same year which can be accounted for by infant deaths being registered instead of still births. This year the still birth rate has remained stationary while the Infant Mortality Rate has dropped to 107 (corrected) so that it is hoped that this is a true decrease and not further accuracy in registration.

#### DEATHS IN BATHURST BY SEX AND AGE GROUPS (EXCLUDING VISITORS).

Age Group	Male	Female	Total
0—5	62	64	126
5—10	10	8	18
10—15	4	1	5
15—20	3	6	9
20—25	7	1	8
25—35	15	9	24
35—45	30	17	47
45—55	31	9	40
55—65	14	7	21
65—75	9	7	16
75—85	7	10	17
85 & over	5	7	12
	<u>197</u>	<u>146</u>	<u>343</u>

A high proportion of deaths in the 0—5 age group occur during the first two years of life:—

Age Group	Male	Female	Total
0—1 month	19	13	32
1 month—1 year	19	20	39
1 year—2 years	10	18	28
2 years—3 years	7	6	13
3 years—5 years	7	7	14
	<u>62</u>	<u>64</u>	<u>126</u>



*Chief Causes of Death in Bathurst.*

Disease.	Below 2 years.	2 years and over.	Total.
Pneumonia, bronchitis	21	35	56
Disease of heart and circulatory system, and old age	—	45	45
Gastro-enteritis and dysentery	13	16	29
Malaria	15	20	35
Premature birth, congenital malformation, birth injury and diseases of early infancy	25	—	25
Sepsis and other surgical causes	2	21	23
Pulmonary tuberculosis	—	22	22
Venereal disease, incl. congenital syphilis	7	12	19
Trypanosomiasis	—	12*	12
Cancer and other Malignant Disease	—	11	11

\*Probably not contracted in Bathurst.

This table shows that the principle cause of death is respiratory disease, but that the principle cause of death after reaching the age of two is diseases of the heart and circulatory system while under that age premature birth, congenital malformation, birth injuries and diseases of early infancy are the main causes. Other common causes of death under two years are infectious and contagious diseases the remedy for these being improved environmental conditions and more widespread knowledge of mothercraft and personal hygiene.

## V. HYGIENE AND SANITATION.

(i) *Mosquito Control.* No new measures of importance were undertaken during the year. The major swamp-reclamation proposals for the Colony, described in the 1947 Annual Report, are still under consideration and a favourable report on the scheme has been received from the Consulting Engineers who provisionally estimate the cost of carrying out the work at £500,000. Repairs have been effected to the outfall works of the Kotu Stream drainage which were damaged by the floods of 1948 and it is now proposed that experimental work should be undertaken to find a means to prevent silting and to increase the flow from the sluice. Bathurst town drainage scheme has made considerable progress during the year; the bund, which is designed to prevent tidal flooding, has been closed and a temporary sluice fitted. It is hoped that the permanent sluices will be in working order before the 1950 "wet season" and it is anticipated that with even this modified level of drainage the condition of Bathurst in the "rains" will be greatly ameliorated.

During the year research, on the bionomics of *A. Gambiae* the principal vector of malaria in this Colony, has been carried out by the Ento-



mologist. The statistical assessment of this work is not yet complete and it would be premature to discuss the findings at this stage.

Anopheline densities have been low and the improvement in control recorded since 1946 has been maintained. It is thought that the level of mosquito control in Bathurst under existing conditions has now reached its maximum efficiency and no further improvement can be expected until the extensive swamp breeding grounds on the outskirts of the town are abolished by reclamation or residual spraying is instituted. The cost of control measures is two shillings a head of the population in Bathurst and three shillings a head in the Kombo area, which includes the control of Yundum Airport.

*Anopheline room densities in Bathurst*

	1945	1946	1947	1948	1949
January	1.07	.32	?	.01	.05
February	.31	.09	?	.02	.02
March	.12	.09	?	nil	.02
April	.08	.07	?	nil	nil
May	.03	.11	?	nil	nil
June	.09	.12	?	nil	nil
July	.27	.08	?	.03	.01
August	.34	.04	?	.18	.03
September	.33	.06	.01	.1	.06
October	.25	.07	.01	.05	.04
November	.17	.09	.03	.06	.04
December	.3	.05	.01	.04	.04

(ii) *Yellow Fever*. No cases recorded. The Aedes Index remained nil both in the Colony and at Yundum Airport.

*Aedes Index in Bathurst.*

1945	1946	1947	1948	1949
2.7	.21	Nil	Nil	Nil

Immunisation of persons in Bathurst who had not previously been inoculated against yellow fever was carried out and all the expatriate staff of the Colonial Development Corporation and local employees working near Yundum Airport are now inoculated. The introduction of the new type of scarification vaccine has been postponed pending further investigations in other countries as to its suitability. It is expected that a scratch vaccine from the famous D.17 strain will eventually be available.

(iii) *Smallpox*. The intensive campaign started in 1948 continues and it is estimated that 37,000 vaccinations were performed in the Protectorate during 1949.

(iv) *Sleeping Sickness*. During October the Entomologist visited the West African Institute for Trypanosomiasis Research in Nigeria, where he



discussed with Dr. Nash the possibilities of tsetse control in the Gambia and on his return drew up a report on the problem. Local staff are being trained in tsetse fly survey work in the area of the Kotu Stream near Bathurst. In the early part of 1950 the Entomologist will survey the Upper River Division.

(v) *Rodent Control*. A campaign was started in Bathurst in March and during the year the total number of rats recovered dead was 3,478 and it is thought from estimates of baits taken that about 12,000 must have been killed. Zinc phosphide was found to be the most effective poison mixed with boiled rice in a proportion of 1 oz. of poison to 2 lbs of rice. The block system with prebaiting was used.

(v) *Conservancy*. In Bathurst seven of the fifteen approved "static tank" latrines scheduled to be built were completed during the year. Owing to their popularity they were overused and the effluent was excessive, and it was necessary to use the cess-pool emptier, which arrived at the beginning of the year, to ease the load. The disposal of bucket conservancy night soil has been combined with the controlled tipping of refuse as in former years.

In the Protectorate the three static tank latrines build at Kuntaur for the trade population and local inhabitants were completed. Several of the more progressive Native Authorities have bought augurs for making bore-hole latrines in private compounds.

(vi) *Bathurst Drainage*. The new bund was closed during July and there was a noticeable improvement in Bathurst although no new street drains had been started by the end of the year. The reclaimed land appeared to be drying out well after the rains ceased.

(vii) *The Kombo and Bathurst Water Supply*. The preliminary survey by the engineering firm of Messrs Howard Humphrey & Sons for sites for deep bore-holes started in Kombo St. Mary District. It is expected that boring will begin in 1950 and that after the 1950/51 dry season Bathurst and Cape St. Mary will no longer be solely dependent on the supply from Abuko.

(viii) *Food in relation to Health and Disease*. In Bathurst all meat was examined directly after slaughtering as a routine and all fish landed was examined before sale. The chief cause of condemnation of meat was cysticercosis cellulosae although the number of pigs killed was very small.

Number of ships boarded: 188.

(ix) *Porth Health and Administration*. No infected or suspected cases of dangerous infectious disease arrived by sea or air during the year.

The International Maritime Declaration of Health is signed by all masters of ships arriving in the Gambia.



Number of Aircraft in transit: 262.

All aircraft were sprayed with aerosols containing D.D.T. and pyrethrum extract on landing at Yundum and immediately prior to departure. Aircraft commanders are required to sign the International Aircraft Declaration of Health and passengers arriving in the Gambia are required to sign the Personal Declaration of Origin and Health. 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.

## VI. HEALTH OF SCHOOL CHILDREN.

(x) *School Hygiene.* From the Protectorate there is nothing unusual to report about the health of School children. The Medical Officer at Bansang inspected the schools in his area and examined 287 children. Of these some were found to be suffering from nutritional deficiencies especially of amino-acids and riboflavin. One case of leprosy was detected. A high percentage of dental caries was noted among the children and it is hoped that the Dentist may be able to visit the Protectorate schools.

In Bathurst no medical inspections were done as medical staff was under strength; but these will start again in 1950. The Health Sister has continued routine cleanliness inspections in all schools in Bathurst and Kombo St. Mary. These inspections which take place two or three times a term were started in 1948 and have been found beneficial especially in checking scabies and ring-worm.

The Dentist continued to examine 150 School children in Bathurst each week. Inspections take place at the Health Service premises and children requiring treatment then attend the Dental Surgery in the Victoria Hospital. The total school population of 3,006 pupils had been seen by March. Oral hygiene was found to be poor. 470 children were found to have dental caries and there were 490 cases of other dental conditions. The number of school children treated is small, as parents do not yet realise the value of early dental treatment.

## VII. MATERNITY AND CHILD WELFARE.

(xi) *Maternity and Child Welfare.* Clinics remained popular. A new welfare centre was started at Bansang hospital where previously cases attended with the ordinary out-patients.



Centre	Ante-Natal Clinics		Infant Welfare	
	New Cases	Total Attendances	New Cases	Total Attendances
<b>Bathurst:</b>				
Anglesea Street	324	1,649	227	3,569
New Street	179	694	350	4,999
Bakau	148	673	160	2,072
Brikama	162	467	742	4,536
Sukuta	246	1,047	425	4,332
Georgetown	56	275	71	294
Bansang	35	129	62	293
Basse	240	749	723	1,923
Totals 1949	1,390	5,683	2,768	22,018
Totals 1948	1,193	4,714	1,931	16,219

Results of Domiciliary confinements attended by Government midwives were as tabulated below:—

				Live Births	Still Births	Total
Bathurst	...	...	...	225	9	234
Bakau	...	...	...	79	10	89
Brikama	...	...	...	40	5	45
Sukuta	...	...	...	128	9	137
Basse	...	...	...	53	5	58
Totals 1949	...	...	...	525	38	563
Totals 1948	...	...	...	454	12	476

The following table gives particulars of all births attended by the seven private registered midwives and the Government Midwifery Service in Bathurst.

				Live Births	Still Births	Total	Percentage of Still Birth
Private registered midwives	...	...	...	241	30	271	11
Government midwives	...	...	...	225	9	234	3.5
<b>Maternity Ward Victoria Hospital:</b>							
Bathurst cases	...	...	...	192	17	209	8.1
Kombo cases	...	...	...	15	6	21	28.6



Difficult cases from private and Government midwives are admitted to the Maternity Ward consequently the still-birth rate is higher than for the district work. The cases from the Kombo which often have not had the services of a qualified midwife are usually in a desperate condition when sent for admission after hours or days of delay. The Government service excluding the Kombo cases, dealt with 443 births in Bathurst including 26 still-births, a still birth rate of 5.9% which is very much less than the 11% still birth rate recorded by private midwives.

E. J. BURY,  
*Director Medical and Health Services.*

*July, 1950.*

## THE APPENDIX.

1949 Diseases classified according to International list of causes of Morbidity and Mortality.

(Sixth Revision of International Lists of Diseases and causes of Death, 1948).

Cause Group.		Detailed List Numbers.	In-patients.	In-patients/ Deaths.	Out- patients.	Dispensaries.	Total.
A1	Tuberculosis of Respiratory System	001 - 008	46	18	65	112	223
A4	Tuberculosis of bones and joints	012 - 013	2	—	—	—	2
A5	Tuberculosis all other forms	014 - 019	3	—	—	—	3
A6	Congenital Syphilis	020	4	3	4	—	8
A7	Early Syphilis	021	22	1	177	—	199
A8	Tabes Dorsalis	024	—	—	1	—	1
A10	All other Syphilis	022, 023, 026-029	6	1	4	389	399
A11	Gonococcal infection	030 - 035	155	2	713	1,693	2,561
A16	Dysentery, all forms	045 - 048	22	2	181	253	456
A18	Streptococcal Sore throat	051	4	—	9	—	13
A19	Erysipelas	052	2	—	—	2	2
A20	Septicaemia and pyaemia	053	3	—	—	—	3
A22	Whooping Cough	056	21	—	150	—	171
A23	Meningococcal infections	057	17	3	—	6	23
A25	Leprosy	060	5	1	53	168	226
A26	Tetanus	061	16	7	—	3	19
A27a	Yaws	073	22	1	1,069	3,858	4,949
A28	Acute Poliomyelitis	080	1	1	—	—	1
A30	Late effects of acute poliomyelitis and acute encephalitis	081 - 083	3	—	1	—	4
A31	Smallpox	084	69	—	—	—	69
A34	Infectious Hepatitis	092	6	1	4	—	10
A37	Malaria	110 - 117	574	22	4,265	1,993	6,832
A37a	Trypanosomiasis	121	44	11	231	1,553	1,828
A38	Schistosomiasis	123	11	—	138	122	271
A40	Filiariasis	127	39	1	135	86	260
A41	Ankylostomiasis	129	38	—	82	172	292
A41a	Ascariasis	130.0	75	4	2,871	2,743	5,689
A42	Other diseases due to helminths	124, 126, 128, 130	25	—	398	65	488



1949 Diseases classified according to International list of causes of Morbidity and Mortality.  
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Cause Group.	Detailed List Numbers.	In-patients. In-patients/ Deaths.	Out- patients.	Dispensaries.	Total.
A43 All other diseases classified as infective and parasitic ... ..	036-039,049,054,059,063-072 074,086-090,093,095,096,120 122, 131-138	22	—	457	490
A44-A57 All malignant neoplasms	140 - 199	37	4	84	121
A60 Benign neoplasms and neoplasms of unspecified nature ... ..	210 - 239	17	—	17	62
A61 Non-toxic Goitre ... ..	250 - 251	3	—	155	996
A63 Diabetes Mellitus ... ..	260	1	—	—	1
A64 Avitaminosis and other deficiency states ... ..	280 - 286	37	5	48	103
A65 Anaemias ... ..	290 - 293	22	4	238	260
A66 Allergic disorders, all other endocrine, metabolic and blood diseases ... ..	240-245,253,254,270-277, 287-289, 294-299	45	2	152	197
A67 Psychoses ... ..	300 - 309	51	9	1	56
A68 Psychoneuroses and disorders of personality ... ..	310-324, 326	1	—	3	4
A69 Mental Deficiency ... ..	325	—	—	1	1
A70 Vascular lesions affecting Nervous System ... ..	330 - 334	17	6	1	18
A71 Non-meningococcal meningitis ... ..	340	9	4	1	10
A73 Epilepsy ... ..	353	17	—	7	52
A74 Inflammatory diseases of eye ... ..	370 - 379	46	—	1,110	4,236
A75 Cataract ... ..	385	—	—	15	15
A77 Otitis Media and Mastoiditis ... ..	391 - 393	10	—	268	893
A78 Other diseases of the nervous system and sense organs ... ..	341-344, 350-352, 354-369 380-384,386,388-390,394-398	96	4	162	589
A80 Chronic rheumatic heart disease ... ..	410 - 416	3	—	39	42
A81 Arteriosclerotic and degenerative heart disease	420 - 422	31	7	26	57
A82 Other diseases of the heart ... ..	430 - 434	43	9	20	63
A84 Hypertension without mention of heart disease	444 - 447	4	—	5	9
A85 Diseases of Arteries ... ..	450 - 456	18	4	4	22



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Cause Group.	Detailed List Numbers.	In-patients.	In-patients/ Deaths.	Out- patients.	Dispensaries.	Total.
A86 Other diseases of the circulatory system ...	460 - 468	70	—	130	46	246
A87 Acute upper respiratory infection ...	470 - 475	25	—	287	5,279	5,591
A88 Influenza ...	480 - 483	1	—	122	87	210
A89 Lobar pneumonia ...	490	28	4	5	—	33
A90 Broncho-pneumonia ...	491	61	19	83	—	144
A91 Primary atypical, other and unspecified pneumonia ...	492 - 493	125	15	58	153	334
A92 Acute bronchitis ...	500	138	2	530	—	668
A93 Bronchitis, Chronic and unqualified ...	501 - 502	4	—	3,430	259	3,693
A95 Empyema and abscess of lung ...	518, 521	7	—	8	—	15
A96 Pleurisy ...	519	33	1	59	—	92
A97 All other respiratory diseases ...	511-517, 520, 522-527	16	—	700	286	1,001
A98 Diseases of the teeth and supporting structures ...	530 - 535	16	—	1,870	634	2,520
A99 Ulcer of the stomach ...	540	5	—	9	—	14
A101 Gastritis and duodenitis ...	543	24	—	710	—	734
A102 Appendicitis ...	550 - 553	12	—	7	—	19
A103 Intestinal Obstruction and Hernia ...	560, 561, 570	337	9	330	183	850
A104 Gastro-enteritis and colitis ...	571, 572	57	6	843	2,153	3,053
A105 Cirrhosis of liver ...	581	13	5	5	—	18
A106 Cholelithiasis and Cholecystitis ...	584, 585	2	—	2	—	4
A107 Other Diseases of digestive system ...	536-539, 542, 544, 545, 573-580, 582, 583, 586, 587	93	2	5,229	8,379	13,701
A108 Acute nephritis ...	590	4	1	—	—	4
A109 Chronic and other unspecified nephritis ...	591 - 594	69	7	51	—	120
A110 Infection of the Kidney ...	600	1	—	3	—	4
A111 Calculi of urinary system ...	602, 604	2	1	7	—	9
A113 Diseases of breast ...	620, 621	8	—	13	—	21
A114 Other diseases of the Genito-urinary system ...	601, 603, 605-609, 611-617, 622-637	345	4	1,012	327	1,684
A116 Toxaemias of pregnancy and puerperium ...	642, 652, 685, 686	31	1	—	—	31
A117 Haemorrhage of pregnancy and child birth ...	643, 644, 670-672	30	1	—	—	30
A118 Abortion without mention of sepsis and Toxaemia ...	650	50	—	41	226	317









