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REPORT

ON THE

MEDICAL AND HEALTH SERVICES

1956

SIERRA LEONE

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1958

The Medical Officer Supervising Maternity Services reported that:—

> "The general educational standard is appalling. After ten years attendance at school most of them are not even able to speak or write correct English.
>
> The co-operation in the lectures is simply heart-breaking. That might sound grossly exaggerated but is far from it. Apart from that the general shortage of staff requires prolonged duty hours. We had certain months when the student midwives were on duty 52–59 hours a week. That does not leave much time for studies."

4. 53 Village Maternity Assistants completed their course of training in hospitals and Health Centres for service in their chiefdoms and 36 were recruited to start their training. As from 1957, the salaries of all trained Village Maternity Assistants will be borne by the Government.

5. A Nurses Ordinance establishing a Nurses Board, and a register of Nurses and Nursing Assistants, was enacted during the year, and it is intended that this will raise the standard of nursing throughout the country. A new Midwives Ordinance for registering and enrolling Midwives and Village Maternity Assistants was also enacted.

6. A nursing administrative post of Matron was created at the beginning of the year in order to provide for the efficient administration of the nursing service and its personnel. Miss S. M. Gimson, a Senior Nursing Sister with fifteen years' experience in the department was appointed to fill the post and she has assumed the responsibility for supervising staff, postings of nurses, and the nursing administration in the various hospitals. This arrangement whereby the nursing problems are dealt with by a Senior Administrative Sister, who is able to devote full-time attention to them, is proving satisfactory.

7. Dispensers were trained at the Connaught Hospital and licences granted after they successfully pass their examination. 9 Government candidates passed the Druggist Examination this year and were awarded the certificate.

8. The training of Health Inspectors continued at Bo with 36 Health Inspector-in-training. One Health Inspector attempted the examination for the R.S.I. (West Africa) Certificate and was successful.

9. Two scholarships were awarded during the course of the year by the National Association for the Prevention of Tuberculosis to a Health Superintendent-in-training and a Staff Nurse for training in anti-tuberculosis health work in the United Kingdom. Both of the officers successfully completed the course.

10. A Sierra Leonean Health Superintendent attended a 12-week course in malaria control for Health Superintendents at Ibadan, Nigeria, during the course of the year. He found the course most valuable and it is hoped that other Superintendents will share the benefit of the course next year. During the year, another Health Superintendent-in-training was awarded a departmental scholarship to the United Kingdom to undergo a course of training in environmental sanitation. This is the second of such scholarships to be awarded.

11. During the course of the year, Dr. E. A. Olu Williams obtained the F.R.C.S. (Ireland) after a little over two years in the service and Dr. A. D. McIntyre took the D.T.M. and H (Edin). Three Medical Officers, Dr. S. Caruana, Dr. A. B. C. Hotobah-During and Dr. B. T. M. Aboko-Cole, proceeded on study leave to the United Kingdom—Dr. Caruana to take a course leading to the D.P.H. and the other two to take the course leading to the Diploma in Tropical Medicine and Hygiene.

2—FINANCE

12. The actual expenditure for the medical and health services in 1956 amounted to £564,887 that is about 5*s*. 8*d*. per head of population. This figure does not include the amount spent on medical development projects for which the estimated provision in 1956 was £135,614. It is interesting to compare the present cost of the hospital and health services with that of 10 years ago when the cost was £153,299.

3—HOSPITAL SERVICES AND HEALTH CENTRES

13. The rapid rate of increase of numbers of patients treated in hospitals, that has been taken place for many years appears to be slowing down, though in-patients still increase and the new hospitals at Kenema and Magburaka are beginning to contribute to the total. In all hospitals except two the numbers of in-patients increased. Over 6,300 in-patients were treated in Freetown hospitals as compared with 5,665 in 1955; and in Provincial hospitals, 7,774 in-patients were treated as compared with 6,523 in 1955.

14. The numbers of out-patients treated at Connaught Hospital and Cline Town Dispensary in Freetown tend to decline, though the number of new cases seen at Connaught Hospital has remained fairly constant around 40,000 since 1949, with a maximum of 50,000 in 1954. Total attendances of out-patients in Freetown clinics have fallen from 267,000 in 1954, and 226,000 in 1955 to 193,000 in 1956. This to some extent is due to the establishment of first-aid posts by the Railway and Port Management, but the lack of good accommodation for clinics and the shortage of adequate medical and nursing staff to run them, lead many people to depend upon local druggists, who run unsupervised private clinics. There has not been any substantial increase of private registered medical practitioners, but Government Medical Officers are permitted to hold private clinics outside Government hospitals.

15. There was a substantial increase of out-patients treated at Hill Station Hospital. New cases were 1,378 the first time a thousand has been exceeded, with total attendances of 5,115. These figures are three or four times the average number treated five years ago.

16. The number of out-patients treated in Provincial hospitals remains stationary. For some years there was an increase of new patients treated, and this reached a peak of about 110,000 in the years 1952–1955. This year 128,000 new patients have been treated but the increase is largely accounted for by the new hospitals at Kenema and Magburaka. The subsequent attendances, after the first attendance have fallen from a maximum figure of 275,000 in 1954 to 230,000 this year, in spite of the effect of the new hospitals. (*See* Part II, Tables 3A and C).

17. This slowing of the yearly increase of new out-patients attendances with a decline in the number of total attendances suggests that the capacity of the hospitals has reached the limit of their staff and accommodation: also, over the last 3 years, private practice has been forbidden to Medical Officers in out-patients departments though permitted in private clinics outside the hospitals, and with the great increase of the wealth of many people connected with diamond mining, private practice in all its forms, good and bad, is far more lucrative than it was before. Only 3 years ago, the previous Director of Medical Services was able to say that "injection practice" was not a problem in Sierra Leone; unhappily this can no longer be said. The ethical conduct of registered medical practitioners continues to be high, but locally registered druggists administer injections

freely upon their own responsibility, and considerable numbers of completely untrained people administer injections for gain. With large sums of ready money in the hands of uneducated people to whom an injection appears to have magical powers, this particular fraudulent practice is perhaps one of the easiest, as it certainly is one of the most harmful, ways of making money.

18. Four of the five new Provincial Hospitals being constructed (with funds provided by Colonial Development and Welfare Schemes) should have been completed during the course of the year, but owing to staff shortages in the Public Works Department only two-Magburaka and Kenema—were opened. Kenema is completed, but Magburaka Hospital was still not finished and was not fully operating at the end of the year. The remaining three hospitals at Lungi, Kambia and Koidu were near completion. Koidu hospital, though incomplete, was opened to deal with emergencies, and for the treatment and screening of the sick, during the evacuation of native foreigners from the diamond mining districts in November, and a Medical Officer was posted there for the rest of the year.

19. In addition to five new Provincial hospitals, the sum of £22,500 was provided under Colonial Development and Welfare Schemes D. 2863 and D. 2864 for the extension of the Princess Christian Hospital and the provision of small maternity wards with six beds to the three Provincial hospitals at Kailahun, Pujehun and Moyamba. It was also planned to provide Maternity Wards for all remaining Provincial hospitals that have none. The Colonial Development and Welfare Scheme provision for the extension of Princess Christian Hospital is in addition to that provided by Government for renovation of the old mission buildings, and the complete scheme will provide equivalent accommodation to that in the existing Oxford Street, Maternity Home, which is to be taken over as a part of the Connaught Hospital. Work was started on the reconstruction and the hospital should be in full operation during the first half of the new year. All the Maternity and Infant Welfare Clinics will be concentrated in this hospital releasing much needed accommodation for use as out-patients clinics at the Connaught Hospital. Owing to staff shortage in the Public Works Department the Maternity extensions to the three Provincial Hospitals mentioned above were not undertaken during the year. They are planned as small units to which complicated maternity cases can be sent and in which village maternity assistants who will practice domiciliary midwifery, can be trained.

20. *Health Centres.*—The remaining two of the 20 Health Centres to be built under Colonial Development and Welfare Scheme D. 866 were completed during the course of the year. The main difficulty in opening the centres is the lack of adequate and trained staff to run the centres. The position was not eased during the year and it was only possible to staff nine new centres, and nine centres remained closed due to shortage of staff.

21. The Health Centre at Waterloo which is a large type of centre with a few beds, completed its first year's work; the centre is filling a much needed role in the locality. It was not possible to open the Health Centre at York which is also situated in the Colony area, as due to lack of staff, the Public Works Department was unable to construct the staff quarters. It has not yet been possible to post a Medical Officer to Waterloo to serve these centres, as was planned.

22. *Lakka Hospital.*—The temporary Tuberculosis Hospital at Lakka which is situated about 10 miles from Freetown on the Coast has again done satisfactory work. Though still awaiting reconstruction and full

equipment, and this has but a strict limit on the work that can be done, the hospital has served a most useful purpose by reversing the fatalistic attitude to the disease that is so common, at least among the patients who are being treated. Visitors who have expected to see hopeless and emaciated invalids have been surprised by the healthy and happy appearance of the patients. Though still in its infancy the foundation is now being laid for the future care and treatment of Tuberculosis in this territory. The hospital is to be reconstructed under Colonial Development and Welfare Scheme No. D. 2405 and work has already started.

23. Work continued on the Infectious Diseases Hospital at Lakka, which is on a site close to the Tuberculosis hospital. It was asked that this building should be ready for use early in the year as it was anticipated that there would be an outbreak of smallpox, but this could not be done owing to shortage of staff in the Public Works Department. As was anticipated the need for the hospital arose during the latter part of the year when there was an epidemic of smallpox. Alternative accommodation had to be found for over 200 cases at Murray Town Hospital, normally used as an extension of the Connaught Hospital, leading to considerable interferance with surgical work. At the end of the year there was a list of 2,000 cases awaiting operation at Connaught Hospital.

24. *Mental Hospital.*—The overcrowing at Kissy Mental Hospital continues to increase. Though every effort is made to avoid certification, and to discharge those certified. At the end of the year, for the first time on record there were over 200 patients, though the place is only intended to hold 110 patients. In these conditions treatment is not possible. One considerable handicap is the difficulty in tracing relatives in distant villages up country from which patients often come, and arranging for their return to their homes. At the end of the year it was arranged that Doctor the Honourable Walter Maclay, Senior Commissioner of the Board of Control of the United Kingdom Ministry of Health, should visit Sierra Leone to advise upon the treatment of mental disease generally.

25. *Institutions.*—The King George V Memorial Home incorporating the Male and Female Infirmaries and the Leper Home, continued to provide a refuge for the aged and infirm both from the Colony and the Protectorate. It has been arranged that in 1957 these institutions shall be handed over to the Social Development Department.

26. *Prisons.*—There was an increase of nutritional skin-defects in prisoners, which were found to increase in incidence with length of imprisonment. Defects were found in the supply and preparation of prisoners' diets, which are being remedied. In November there was a serious out-break of beri-beri, and 65 cases were reported in prisoners. This coincided with an issue of imported rice in place of the recommended local rice milled to Medical Department standards. The outbreak was similar to one which occurred in a residential school two years ago, also due to the use of an imported rice. Rices have been sent for analysis of vitamin-content to the Applied Nutrition Unit of the London School of Hygiene and Tropical Medicine and it was confirmed that those associated with these outbreaks were deficient in thiamine.

27. Not all imported rice is at fault but only occassional shipments. One rice involved was highly milled and not parboiled, the other was parboiled but was old when shipped, and was heavily infested with weevils. As the country must for the present make use of imported rice, its vitamin-content is clearly of great importance to public health, for rice is a staple

and is the main source of thiamine in the diet. Arrangements for inspection and analysis of imported rice are being made with the Department of Commerce and Industry. If rice with inadequate vitamin has to be imported owing to difficulties of supply, it may be necessary to consider some method of fortification.

28. *Pathological Laboratory.*—The post of Senior Pathologist remained vacant during the course of the year. As stated in the last report, the continued absence of this officer has thrown extra amount of work on the Pathologist who has found very little time to devote to the training of Junior Technical Staff. During the year over 59,900 examinations of various kinds were done in this laboratory.

4—PUBLIC HEALTH

29. *Administration.*—This year was the third since the administration of Health Centres, Dispensaries and Sanitation was handed over to the District Councils on 1st January, 1954. The staff to run these services continued to be assigned or transferred from the Medical Department. As a result of the Cox Commission's report on disturbances in the Protectorate during the year, due to resentment on local taxation and the methods by which it was levied, Government has decided that administration of health centres and dispensaries should revert to the Medical Department in 1957. Sanitary staff are still to be assigned to District Councils.

30. The Freetown City Council have continued to deliberate upon the proposal that they should take over routine sanitary services in the city from the Government Medical Department, but have not yet been able to do so. This continued uncertainty about the future of sanitary administration in the city since the proposal for a transfer was first made in 1949 does not make for improvements in the sanitation of Freetown.

31. The Bo Town Council has worked in close co-operation with the Health Authority with marked benefits in town planning. The Chief Health Superintendent reports:—

> "The Town Council has on our advice made up many of the proposed streets in various town layouts—this coupled with the streets surfaced by Public Works Department has effected considerable improvements in the town."

32. In each province the Medical Department is building up teams under a Chief Health Superintendent to organise sanitation and town planning. In the South-western Province, the Chief Health Superintendent has given the following account of work that has been done:—

> "The department built latrines for the new Health Centre at Madina Bum, built the new Protectorate Office for the Registrar of Births and Deaths, repaired latrines in the reservation. The new market in Bo Town was designed by this department and the temporary latrines were constructed by us. The department continued to be the unofficial Town Planning body in Bo and elsewhere, fulfilling largely the functions of a Town Planning department and Surveys Department. Bo itself is developing so rapidly—no doubt due to the new diamond wealth—that one of the Surveyors assigned to us from H.H.C.C.P.'s Office was almost fully engaged on drawing up new layouts for Bo. Koribundu was surveyed and replanned. For the development of the country I think there should be at least a Surveyor for each district. Health Inspectors should be able to do the simpler layouts for the smaller towns; but in the larger towns land

values are rapidly increasing and survey plans should be accurate and accurately set out on the ground to avoid disputes and litigation. The department has taken the old out-dated Cadastral Survey Sheets of Bo and super-imposed thereon proposed and existing town layouts."

This is typical of the work that is done by the Department in the Provinces.

33. The work of the various health authorities in the provinces, that are associated with chiefdom authorities and District Councils, suffered from the serious tax disturbances that have been fully described in the Report of the Cox Commission. The unrest and general social instability resulting from the widespread and lucrative development of alluvial diamond mining in the South-eastern Province has both enormously increased problems of environmental sanitation and seriously interfered with such machinery as existed for sanitary administration.

34. This is reflected in reports from Medical Officers of which the following two are typical.

The Medical Officer, Kenema reported of Kenema town:—

"There were about 21 labourers employed by the Native Administration and the work done is under the direction of the Health Inspector assisted by Sanitary Overseers. Owing to the illicit mining a good number of these labourers left of their own accord which left the town in a dirty condition".

The Medical Officer, Magburaka reported of the Health Area at Yonibana:—

"Due to the recent Protectorate disturbances there has been little money available for the payment of sanitary labourers with the consequence that standards of cleanliness have deteriorated".

The Chief Health Superintendent, South-western Province reported:—

"Labour paid for by Government at J.I.C. rates is almost impossible to get or to hold. In Panguma for instance, twenty labourers were recruited each morning for more than a week, but by about 10 a.m. each day they had all disappeared. I spoke to the diggers (mostly Temnes) at all the above mentioned places and they seemed to be genuinely ashamed of the Squalor they had created around themselves and willing to help on a communal basis."

35. The Public Health (Protectorate) Ordinance provides that in scheduled health areas, the Paramount Chief of the area, or in important places, a Special Health Authority which always includes the Paramount Chief, should be the Health Authority. There is a simple set of sanitary rules made under the Ordinance, and offenders if they are natives of the Protectorate may be tried in the Native Courts and fined a maximum penalty of one pound. In the past this has been a satisfactory arrangement suited to the tribal society of the Protectorate; a Paramount Chief was able to enforce the simple sanitary rules in his town, much was done by communal effort, and any failure was regarded as a reflection upon the chiefdom. For some time this organisation has appeared to be inadequate in a changing society, and it became abundantly clear during the year that the Ordinance no longer provides for a practical system of sanitary administration. A preliminary draft of an up-to-date Public Health Ordinance for the whole country has been waiting preparation for the legislature for some years, and the preparatory legal drafting is now being done.

36. *Entomological Laboratory.*—No changes have been made in administration or in the general methods of mosquito control or insecticides employed. The protection of Freetown from malaria was continued by control of the larva stage by application of D.D.T. emulsion. This is supplemented by residual spraying with B.H.C. in the urban and rural areas of Freetown. Anopheline densities in Freetown and the Western area during 1956 were of similar order to those recorded in 1955. A slight increase in density was seen in Kissy Village.

The incidence of malaria in school children remains of the same order as that reported in 1955, as does the number of adults reported infected at the Connaught Hospital. Anopheline densities and parasite rates are given in detail in the half annual reports of malaria control in Freetown which are circulated.

Residual spraying in the Airport at Lungi continues. A pilot scheme in the Rokupr areas involving the use of dieldrin has been suspended in view of the reported production of resistance to this insecticide by A. Gambiae.

37. Regular estimations of the aedes index are carried out for the maintenance of an " aedes free zone " in the vicinity of the Queen Elizabeth Quay, at Freetown, and at Lungi Airport.

38. Investigations of the culex fauna of Freetown continue. In the annual report of 1955 reference was made to the introduction of *Culex fatigans* into the Freetown area. The development of *Wuchereria bancrofti* to the effective form in *fatigans* has now been demonstrated in the laboratory. The number of *fatigans* used in these infection experiments were too few to enable comparisons to be made with the susceptibility to infection reported in this species elsewhere. No 3rd stage larvae have been found in the wild population. A series of dissections of *Culex* (*Culex*) thalassius were also carried out but no larvae were found.

39. A survey to estimate the incidence of nocturnal microfilaraemia due to W. Bancrofti was carried out in Freetown and the Colony. A high incidence was found in some Colony villages but a much lower incidence was found in the area around Freetown in which mosquito-malaria control is organised. Very little transmission appears to take place in Freetown.

40. Half-yearly reports of the work of the laboratory are circulated.

41. *Port Health.*—As a result of the outbreak of smallpox, the port of Freetown was declared infected under the International Regulations in August and remained so until the end of the year. Movement within the port area was restricted and persons not admitted to the quay without smallpox certificates. Rodent control with warfarin was continued by the Port Management.

42. Nine cases of smallpox occurred in villages outside the perimeter fence at Lungi Airport during the year. The airport was declared infected under the International Sanitary Regulations in August and remained so for the rest of the year. 6,924 people were vaccinated in and around the Airport during the year.

Maternity and Child Welfare Services

43. The training of Village Maternity Assistants in the Provincial Hospitals was on the whole, satisfactory, despite indifferent facilities for maternity work in many hospitals. The plan to return the trained girls to their chiefdoms met with difficulties, as the chiefdoms could not pay them. These administrative difficulties are receiving close attention and will be

remedied; the scheme shows every promise of success. 53 girls successfully completed the course of training and were supplied with U.N.I.C.E.F. kits for maternity work.

44. In the Provincial hospitals over a thousand deliveries were recorded. There has been a steady increase of maternity cases treated in these hospitals, and few though they may still be, this is more than twice the number of deliveries in Provincial hospitals two years ago. With training of Village Maternity Assistants and the opening of Health Centres this points to the urgent need for the building of the maternity centres that are planned for all hospitals.

45. Approximately 57 per cent of the births registered in Freetown were actually delivered in the Maternity Hospital for the first time there were over 3,000 admissions and over 2,000 deliveries. Attendances at the ante-natal, post-natal and infant welfare clinics amounted to over 45,000.

46. The Domiciliary Midwifery service in Freetown has now been working for 2½ years. Progress is inevitably slow owing to shortage of trained midwives and the demands for their services in health centres, but there has been a small increase in the numbers of patients who have had the babies at home under the supervision of the Service.

47. U.N.I.C.E.F. equipment for Health Centres and Maternity and Child Welfare Services was received during the year and has proved most useful.

48. The distribution of U.N.I.C.E.F. milk through hospitals and health centres to young children continued. Development of distribution has been slow owing to the staffing difficulties described earlier.

49. The Red Cross Society continues to distribute milk to necessitous children in Freetown.

50. *School Medical Service.*—A Lady Medical Officer has been posted as Schools' Medical Officer in Freetown for many years. Originally she visited schools and examined all school entrants and leavers, in the accepted routine of a school medical service and held a school clinic. During recent years the school clinic has become in fact a children's casuality department of the Connaught Hospital. Out-patients department and the numbers of casualties reporting for medical attendance have so fully occupied the time of the Medical Officer that she has been unable fully to carry out the normal duties of school inspection and the examination of classes of children other than those reporting sick. Total attendances at the school clinic during the year were over 31,000, and the school clinic at St. Joseph's Convent, which receives a Government grant in aid, treated 21,000 attendances. Outside Freetown there is no separate school medical service and schools rely upon local hospitals and medical officers, but the schools medical officer started a routine weekly visit to the new health centre at Waterloo, for it was found that many children were coming from there for treatment.

51. Dr. Rosanelli, the Lady Medical Officer-in-charge of the Freetown School Clinic throughout the year reported:—

> "Attendances in both clinics were heavy. It appears, that many children need not come to the clinics, if the teachers would make more use of the first-aid box in school, and if in all cases, except in emergencies, the parent would have to give their consent before the child attends the clinic. All the intentional missing of unpopular lessons might be largely reduced. The Lady Medical Officer Schools could then find more time to visit Schools, and do routine examinations of new comers."

"Three factors leading to malnutrition and avitaminosis are:—

1. The children get too little food.
2. The children get the wrong kind of food, i.e. mainly rice. Milk or eggs are practically not known in their diet. Very little meat, fish mostly dried, very little vegetable and these vegetables only boiled for a long time in the different sauces that are eaten with the rice.
3. The children are not fed regularly and at reasonable intervals. Many of them get their first meal when they come home from school about 2 p.m. A great number get only 1 meal a day.

The Avitaminosis is mostly of the B deficiency type. Ariboflavinosis being the most common one. 340 severe cases of Avitaminosis were seen in this clinic.

In these cases, Avitaminosis as such caused the children to come to the clinic to seek medical attendance. The number of avitaminosis, that was detected as an additional symtom in children attending for other reasons, were numerous. All cases were treated with either cod liver oil, Malt or compound Vitamin Tablets. A printed form with suggestions for a proper diet was given to the parents of these children.

When necessary, the Red Cross supplied milk to very needy children for a limited period.

The ideal way of improving this state of affairs would be a cheap school meal that the children could buy in school and that could be given to the very poor free of charge. Even a glass of milk daily would improve the health of these children.

Wounds.—The wounds and injuries in school children's feet are so numerous, that it would be worth while to make it compulsory for school children to wear shoes as part of their uniforms. Any cheap type of sandal would do, as long as the sole of the feet are protected against nails and broken bottles.

The number of puncture wounds in soles of feet seen in this clinic were 900. The number seen in St. Joseph's Clinic is not known. Sores or septic wounds of other kinds are not included in this number.

Malaria.—It is striking, that the peaks are always found after school holidays when children come back from their stay in the Protectorate. Although not all fever conditions are due to Malaria I do feel that Malaria contracted in the Protectorate is largely responsible for the increasing numbers.

Yaws.—Yaws incidence in Freetown is comparatively low but high in Waterloo.

Parents.—The general interest that parents take in the health of their children is very poor. Most of the infants (5–10 years old) come to the clinic without any grown up person. Some of them severely ill, or with temperatures up to 105. To obtain a true history is very difficult. A child of that age can hardly be trusted to take care of a medicine or tablets issued to him, and one cannot expect, that it would heed or even remember any particular instruction how the medicine should be taken, or other advices given. But even when parents do come, they do not bring children back regularly, if long treatment is necessary.

Especially in cases of Tuberculosis, it is the exception that the child gets his full treatment, because after about a month the parents and children lose their interest. Not all children suffering from Tuberculosis however, can be admitted to hospital.

School buildings.—The majority of school buildings in Freetown are overcrowded. All basement schools have insufficient lighting. The children having to read small prints in practical darkness. This is dangerous for their eye sight. This could be remedied with not too large an effort, by installing proper and adequate artificial lighting.

I was surprised to find a Government assisted school Kroo Primary Infant Department in Macdonald Street with an enrolment of 165 children and no toilet facilities. Generally the sanitary conditions in which latrines are kept are poor and would need more supervision by the teachers.

Private schools.—The conditions in most private schools can only be described as being shocking : one has to see them to believe it. Most have no toilet facilities, with enrolments up to 300 children. The rooms are usually filthy the buildings dilapidated.

52. The note upon the incidence of fevers after holidays is of the greatest interest and indicates that children in Freetown schools, and their parents, might profitably be taught the need for malaria-prophylaxis when going outside the malaria-controlled area of Freetown. As to diet, U.N.I.C.E.F. milk has been distributed in the first place to Rural Health Centres, primarily for pre-school children, but a more general use in schools may be desirable.

Endemic Diseases Control Unit

53. This field medical unit started during the year on the W.H.O.—U.N.I.C.E.F. Scheme for eliminating yaws, and this formed the main activity of the unit during the year. The campaign was in charge of Dr. N. G. D. Cambell, M.B.E who made the following report:—

"A modern field campaign, properly organised, and equipped with the latest appliances is a very powerful weapon in the battle for health. In a matter of months, and at a fraction of the cost of other methods, it can achieve results which from static units would take generations; results, the full significance of which cannot yet be foreseen. It brings to the people in the bush, who make up a large percentage of the population, services which they are demanding and which they cannot receive by any other simple means.

This campaign, or others of a similar kind, may last for many years. After twelve months' work, many lessons of a general nature are learnt, some of which are dealt with at some length in this first annual report, in the belief that a wider knowledge of them may be of value in the future.

Method.—Two attendants go ahead of the teams to inform the people about the campaign, to make a traced map of the chiefdom and mark on it all the villages and to prepare a set of itineraries for each pair of the attendants. These visit and treat every village in the itinerary, returning at the end usually to the headquarters of the chiefdom. A chiefdom is normally treated by six pairs of attendants with a medical officer or other team leader supervising the work and supplying extra penicillin or equipment that is required. It is believed that both the chiefdom people and the attendants like to know that there is a responsible officer not far away.

In many chiefdoms the Paramount Chief has lent a uniformed messenger to each pair. Apart from helping with the language and the itinerary, this sets the stamp of the Chief's approval on the work and results in a much greater number of people being treated.

Initial treatment survey.—Owing to the prevalence of yaws it was decided to undertake total mass treatment, the treatment of every possible individual. The dosage used has been 4 c.c. for adults and 2 c.c. for children (15 years or under) with visible yaws, and half this for those without visible yaws.

Treatment started at Mabonto and Bumbuna on 16th January. From there the teams moved across country to the French Guinea border at Mongo Chiefdom, then along the motor road through Kabala, Makeni, Magburaka and Yele, treating the chiefdoms on either side of the road. This covered every chiefdom lying wholly or in part east of the Yele-Kabala road, twenty-four in number, and was completed by 16th November.

Progress at first was rapid. Much of Koinadugu district is thinly populated with a density of not much more than twenty people to the square mile. Later in Limba and Temne chiefdoms progress became much slower. The Korankos tend to live in large villages or towns separated often by a considerable distance, while the Limbas and Temnes seem to prefer large numbers of small villages. If a pair treats only two villages each day this makes working in some of the thickly populated chiefdoms rather tedious, but undoubtedly increases greatly the percentage of the population treated.

Nieni Chiefdom (Koranko) covering 920 square miles contains about sixty villages while Biriwa (Limba) and Bonkolenken (Temne) each of about 330 square miles contain well over 200 villages. Each of these three has about 2,900 tax payers and the total number of people treated was (in the above order and in round figures) 7,000, 14,000, 21,000.

The estimated population is calculated from the number of tax payers. This is not quite as accurate as it might seem; for not only does the definition of tax payer seem to vary considerably from one chiefdom to another, but there is also no certainty that a taxpayer and his family are resident in the chiefdom. Many people pay tax in a chiefdom for some years after they have left it, if they intend to return eventually. In one chiefdom, Tane, the number of taxpayers in 1956 was almost exactly half that of 1955, although there is no reason to believe that many people had left in that time. Calculated from taxpayers, the percentage of the population treated in this chiefdom was 304 per cent of adults and 499 per cent of children; obviously absurd figures.

Over the last few years, very large numbers of Korankos left their chiefdoms for the diamond areas, and in the last two months of the year substantial numbers of them have returned, no doubt many of them with yaws. It is interesting to note that the fast month cause no interruption even in a chiefdom with a large number of Moslems. August and September are unpleasant months for Moslem workers, but, again, there was no hold-up of the work due to rain.

The figures for persons treated in the initial treatment survey are given in Part II. The figures for yaws should be interpreted with caution. Apart from great personnal variation in the diagnosis of yaws, persons diagnosed as suffering from diseases other than yaws, e.g. tropical ulcer, are given 4 cc. of penicillin and are therefore classified as yaws cases.

Re-survey.—By the middle of November, the eastern half of the Northern Province had been treated and rather than start on the western half it was decided to begin the re-survey. Reports from the areas which the campaign had visited suggested a substantial reduction in the prevalence of yaws and it was felt preferable to visit the area again and consolidate gains already made and not allow the disease to build up again. It was known that several thousand people had returned to Koinadugu District from the diamond areas in November and it was believed that an undesirable low percentage of the population had been treated in the initial treatment survey. For these reasons a second total mass treatment of this district was considered necessary.

This would take very little longer than just the treatment of new cases, relapses and contacts; the only difference in cost is in the extra penicillin used. It might be difficult to collect the people for examination if it was known that only a few of them would receive an injection and, lastly, it might be a number of years before permanent treatment facilities could be established in some of these chiefdoms. Once this decision was made, there was no possibility of the re-survey being done by a few attendants and allow the others to continue in the other half of the province.

Results.—It is not possible to assess the results of the first year's work merely by studying the figures for people treated or by calculating the reduction in the prevalence of yaws. As in building a bridge much of the early work is in laying foundations which are not seen by the casual observer, but they are nonetheless valuable.

First, a number of attendants have become proficient in the work and they have obtained a very extensive knowledge of this part of the country. Some of them have learnt languages which they did not speak before, and several have learnt to work with intelligence and to overcome difficulties themselves without running constantly to others for help. The importance of junior staff being able to work efficiently and honestly unwatched and unaided can hardly be exaggerated; the future of more projects than the yaws campaign depends on it.

Secondly, a popular Government Service has been taken to a large number of villages, to many of them for the first time. Everyone, whether inhabitant or stranger, was able to benefit with no questions asked. Distant villages feel cut off and forgotten; they hear of great works being undertaken in the larger towns but complain that they get no help. At a time when increasing interest is being taken in the level of taxation and in the way in which money is spent, the campaign may well have had an influence on more than the prevalence of yaws.

It seems likely that the majority of people actually suffering from yaws received an injection. In Mabonto dispensary no case of yaws was reported for treatment for three months after the campaign had left. Since then a steadily increasing number have been seen. This pattern has been seen in all centres of treatment in the area covered but it must be remembered that some hospitals, such as Makeni, draw quite a substantial proportion of their patients from chiefdoms which have not yet been treated.

Unfortunately the figures from the three re-surveyed chiefdoms are equivocal. There is great variation in the diagnosis of yaws; some attendants will label as yaws faint cracks and erosions on the sole while others will reserve the diagnosis for those with undoubtedly active cases. Scabies, impetigo and leprosy are no doubt frequently diagnosed as infectious yaws. In only two villages in these three chiefdoms has the examination been done by a medical officer. In Kulifaga, out of a total

of 227 people examined there was one case of infectious yaws, about seven cases of active hyperkeratosis and forty cases of mild hyperkeratosis which had almost certainly been treated ten months before and were now cured and inactive. In Mabonto out of a total of 613 people examined there were 15 cases of infectious yaws, some of whom may not have been for treatment at the dispensary, and 69 cases of hyperkeratosis, many of them very mild as in Kulifaga. Mabonto was surrounded for eight months on three sides by untreated chiefdoms.

On the whole it can be said that infectious yaws was uncommon in the re-surveyed chiefdoms as was active hyperkeratosis but that faint, probably cured hyperkeratosis was common.

Environmental Sanitation

54. At the end of 1955 and beginning of 1956 Dr. J. R. Rose, F.R.C.S., Medical Superintendent of the Nixon Memorial Hospital of the Methodist Mission, at Segbwema, South-eastern Province reported what appeared to be a form of virus encephalitis that he had observed at the hospital. The first cases he saw came from the diamond mining area of Yengema where a great deal of illicit mining was taking place. There was also a popular reference to a disease called "Yengema Sickness", said to be causing heavy mortality among illicit miners. "Yengema Sickness" was probably no one disease, but a mixed bag of intestinal and other infectious, malnutrition, and smallpox.

55. Diggers engaged in illicit mining were living in mushroom settlements around the Sewa and Bafi rivers, many of them in very inaccessible places. As the majority of the population were engaged or connected with an illegal activity, and successful operators were amassing great wealth, the enforcement of any sanitary law would have been difficult or impossible, but as noted in paragraph 35 above, the Public Health (Protectorate) Ordinance was designed for use in a stable peasant society, and is quite ineffective in unstable conditions of this kind.

56. The following reports made by public health officers give some indication of conditions in these diggers settlements:—

> "I was taken to the village of Jala by the Security Officer of the Sierra Leone Selection Trust. This village lies off the Sefadu-Jiama Road and was originally a hamlet too small to be shown on maps of the area, today it is a rapidly growing settlement of illicit diamond miners and dealers. Houses of the poorest type are being erected on every piece of open land, the roofs of many touch those of adjoining buildings. Additional rooms are continually being added to existing houses as the demand for accommodation increases, the ceiling height of many of these does not exceed 4 ft. at the external wall. There are usually 6 to 8 occupants to each room.
>
> The only water supply is provided by the nearby swamp in which diamond mining is taking place. There are no latrines whatsoever and the whole area for some distance around the village is fouled by human excrement. Everyone has money to purchase canned provisions and there are empty food tins in quantity lying around every house. These, together with excrements are given rise to massive fly breeding, in addition there are numbers of empty wine and beer bottles everywhere.
>
> The population consists of many tribes but Madingoes predominate, it is not static and there is apparently constant traffic between here and the larger towns on the main major roads and with territories outside Sierra Leone.

Environmental conditions in Jala are typical of scores of such centres of population in Kono District. A report submitted to me by a Senior Attendant of the E.D.C. Unit confirms this. The Attendant concerned is a Kono who speaks Madingo and Mende, and was sent by me to the villages of Peyima, Sukudu and Gbondu (located North-west of Sefadu) which are notorious mining centres. These three villages are not accessible by motor road and can only be approached by footpath from Tunbudu, their remote position renders them very suitable for illicit operations, consequently they are larger than Jala and are growing rapidly. Demands for accommodation have outstripped the villagers capacity to build traditional mud houses and large numbers of shimbek shelters are being erected and used as dwellings."

"I inspected Tumbodu and the outlying villages of Nemesadu, Kpondu and Peyima. The only approach to Nemesadu, Kpondu and Peyima is a bush path across several streams.

Tumbodu, Kpondu and Peyima are densely over populated but Peyima is the most densely overpopulated. The population is composed of about 90 per cent foreigners. The majority of the foreigners are Madingos from the French Guinea, Arabs, Hausas and a few Sierra Leoneans. We estimated that Tumbodu had about 5,000 people. Gbondu about 4,000 and Peyima about 7,000. They appear to be traders with all types of imported and local commodities who have settled recently with their family in these places.

Tumbodu.—Has fairly good number of mud and zinc or thatched roof buildings with very little space between the houses; most houses were recently constructed in open spaces, however there are a few streets which serve as market places for the foreign traders to spread their wares, and also cook their meals. When we arrived there just after 7.00 a.m. we could see people collecting their beddings from the verandahs and a few still sleeping. They have (stand pipe water supplies) very few pit latrines. Refuse, empty tins, and bottles were scattered around the houses.

Kpondu.—The approach to this village is foul with swarms of flies; except for an open space around the Court Barri; the shimbecks are almost eave to eave with just enough space for passage. The water supply is from a stream which is polluted. There is, no latrine no means of refuse disposal and no burial ground; a very insanitary village with swarms of flies.

Peyima.—Is the most insanitary village that I have ever seen; it is unbelievable that human being could live in such filth. There are hundreds of shimbecks about 5 feet high with no windows clustered together; there were twenty of those being built that day and it would appear these people go and squat on a plot and within a day or two build their mud block and thatch roofed shimbeck. It is a densely over populated area in a valley with no latrine, no burial ground, with refuse, empty tins, bottles scattered about and polluted water supply from a spring and stagnant streams, breeding mosquitoes, excrement scattered on the path with heavy fly breeding. On that day they had slaughtered six cows which were hung up for sale and covered with flies; every particle of food exposed for sale was covered with flies; bread seem to be very much in demand and we saw a bakery of some sort."

57. Despite difficulties, action to introduce the most primitive requirements of sanitation, such as the control of excreta and refuse, with insecticidal spraying of dumps met with some success in a few of the worst settlements; but the extreme mobility of the diggers, who went from place to place trying their luck, often meant that improvement in one place was more than balanced by deterioration in another. In one of these towns the Health Inspector was able to identify 24 different tribes or peoples, who came from all over West Africa from Senegal to Nigeria. They far outnumbered the local people.

58. Later as licensed diamond mining started there was a movement of population to Kenema and Bo Districts with a similar growth of insanitary mushroom settlements.

59. Vaccination against smallpox was maintained and intensified in the alluvial diamond mining areas throughout the year, over 100,000 vaccinations being done in the Kono District alone, and over 60,000 in other Districts of South-eastern Province. Over 600,000 vaccinations were done in the whole country. There is a great deal of avoidance of vaccination, and where staff have to work without reliable supervision the difficulties that occur are well described by the Medical Officer, Moyamba:—

> "In general it can be said that these young men should not work without closest supervision. There are some evidences that they are inclined to give wrong reports of their work.
>
> A second point to be considered in trying to suppress this epidemic is the fact, that still too many people refuse vaccination and disappear when they see vaccinators coming.
>
> Isolation is too often ineffective. The patients simply disappear.
>
> The so-called Health Overseers are useless. They stay in their places and do not make any effort to oversee the health situation in their areas. It is not only because of lack of transport, but mostly because of lack of responsibility or/and lack of insight in the danger of such outbreaks.
>
> Too often patients with full-blown smallpox travel in buses or launches or even trains."

60. The Chief Health Superintendent, South-western Province reported:—

> "As smallpox commenced, vaccination teams were set to work in the Province—working systematically chiefdom by chiefdom and radiating from Bo. This proceeded steadily—but, without any obvious or immediate danger, we met difficulties ranging from indifference to hostility and the vaccination in the chiefdoms probably never exceeded 50 per cent of susceptible persons. We endeavoured to keep the systematic chiefdom vaccination going—but as the disease spread our vaccination teams were made smaller and more numerous and we tried to "blanket" off each area where smallpox was reported—by isolating of cases and vaccination of surrounding areas. Bo has been regarded as the Protectorate cross roads and has been repeatedly and intensively vaccinated and of the nearly 200 cases isolated during the period in Bo—the vast majority were strangers who tried to reach Bo for treatment or who were taken off lorries by us when they were trying to reach their home towns usually from the diamond zones heading for the Northern Province. Almost all the staff was put on vaccination and smallpox work. The general increase in the spread of smallpox is no doubt attributable

to the original resistance to vaccination and even more to the vast population movements brought about by the diamond industry. Vaccination continues to be the chief concern of the Department."

61. There is little public comprehension in Sierra Leone of the dangers of infection from smallpox, and lorry drivers often have no hesitation in accepting passengers with obvious smallpox. These infected persons attempt to travel to large centres such as Bo or Freetown for hospital treatment, so spreading infection. Formerly with less well developed road communications rapid spread of infection could be more easily controlled, and the numerous ferries on every main road made effective sanitary control posts for vaccination and isolation of the sick. The replacement of ferries by bridges, and the great increase of motor traffic have contributed greatly to the dangers of spread of infectious disease.

62. In November, Government took steps to remove "strangers" or "native foreigners" from the diamond digging areas and they were warned to return home. The result of this warning was that approximately 40,000 persons left the mining districts within a month, and smallpox became widespread despite all efforts to isolate the sick and vaccinate. Some of the chief routes taken by these considerable movements of population are off accessible motor-roads and extremely difficult to control.

63. As soon as the insanitary settlements were evacuated all unfit temporary dwellings were destroyed under the provision of the Public Health Ordinance, the country having been declared infected with smallpox. Between 5,000 and 6,000 temporary shimbecks containing about 20,000 rooms were destroyed and this left considerable open spaces around the shanty towns. There was unfortunately an immediate tendency for these sites to be reoccupied and lack of adequate building regulations as well as lack of staff, made control of new building difficult.

64. Apart from the outbreak of smallpox there has been little variation in the general pattern of diseases treated from previous years. Accidents continued to be an increasing cause of hospital treatment, and over 3,000 cases described as motor vehicle accidents were treated as inpatients and outpatients, but a number of motor accidents are probably wrongly entered as due to other transport, or to falls. The increase in accidents treated is shown by the following table of hospital inpatient and outpatient admissions.

	1952	1953	1954	1955	1956
Motor vehicle accidents	463	862	1,104	1,657	3,318
Other transport accidents	113	562	515	669	798
Total ...	576	1,424	1,619	2,326	4,116

65. As noted previously, there are still a number of accidents due to firearm's and the three Northern Province hospitals at Makeni, Kabala and Port Loko treat more than twice the number treated elsewhere in the country. These hospitals treated 134 cases out of a total for all the hospitals of 194.

GENERAL

66. *Important Visitors.*—The following visitors from abroad, visited the Medical Department during their stay in Sierra Leone:—

1. Dr. R. Lewthwaite, C.M.G., Director of Colonial Research Service.
2. Dr. Geser, of the World Health Organisation Tuberculosis Team.
3. Dr. Cruz Ferreira, World Health Organisation V.D.T. Adviser,

4. Dr. R. Marti, United Nations International Children's Emergency Fund, Chief Representative.
5. M. Marcel Ganzin, Nutrition Officer.
6. Sir George Seal, K.C.M.G., First Crown Agent.
7. Rt. Honourable John Hare, Minister of State.
8. Lieut-Colonel Walters of West African Council for Medical Research.
9. Professor Toumanoff, Head of Entomological Department at the Institute Pasteur, Paris.

Attendances at Conferences

67. Dr. T. P. Eddy, Director of Medical Services, attended the annual meeting of the West African Council for Medical Research and the Seventh Conference of Directors of Medical Services, West Africa, at Accra, Gold Coast, in March. Dr. M. C. F. Easmon, Temporary Medical Officer, also attended this meeting of the West African Council for Medical Research.

68. Dr. D. E. Boye-Johnson, Senior Medical Officer (Health) attended the International Symposium on Venereal Diseases and Treponematoses held in Washington D.C. in May, 1956 and also the meeting of the sixth session of the World Health Organisation Regional Committee for Africa in Luanda, Angola, in September, 1956.

69. Dr. N. G. D. Campbell, Medical Officer-in-Charge of the Endemic Diseases Control Unit, attended a conference on the co-ordination of yaws control in West Africa, in Ghana in August.

70. *Legislation.*—The following were enacted during the year:—

No. 19—The Public Health (Protectorate) Ordinance (Cap. 191) 1956 (Special Health Authority).
No. 20—The Public Health (Protectorate) Ordinance (Cap 191) 1956 (Health Areas).
No. 24—The Dogs Ordinance (Cap. 67) Proclamation, 1956.
No. 49—The Dangerous Drugs Ordinance (Cap. 58) Order in Council 1956.
No. 71—The Public Health (Protectorate) Ordinance (Cap. 191) 1956 (Special Health Authority).
No. 72—The Public Health (Protectorate) Ordinance (Cap. 191) 1956 (Health Areas).
No. 73—The Public Health (Protectorate) Ordinance (Cap. 191) 1956 (Special Health Authority).
No. 74—The Public Health (Protectorate) Ordinance (Cap. 191) 1956 (Health Areas).
No. 119—The Nurses Ordinance, 1955 (No. 18 of 1955) (Commencement) Order, 1956.
No. 122—The Midwives Ordinance, 1955 (No. 19 of 1955) (Commencement) Order, 1956.
No. 123—The Public Health (Protectorate) Ordinance (Cap. 191) 1956 (Smallpox Infected Areas) Order, 1956.
No. 127—The Public Health (Protectorate) Ordinance (Cap. 191) 1956 (Health Areas).
No. 128—The Public Health (Protectorate) Ordinance (Cap. 191) 1956 (Special Health Authority).

Literary Contributions.

71. Dr. F. Stephen Carter, M.A., M.D., M.R.C.P., D.C.H., Physician Specialist, Sierra Leone Medical Service, submitted a paper on "Practical Public Health Measures on Tuberculosis Control in the African Region" for technical discussion at the sixth World Health Organisation Regional Committee for Africa held in Luanda in September.

72. Mr. C. Peel, Chief Health Superintendent, submitted a paper on "Health and Environment in Rural Areas in British West Africa" to the World Health Organisation in May.

T. P. EDDY,
Director of Medical Services.

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PART II

STATISTICAL INFORMATION

1—ADMINISTRATION AND STAFF ESTABLISHMENT

Administration

1 Director
1 Deputy Director
1 Assistant Director
1 Administrative Secretary
1 Stock Verifier
1 Financial Assistant
1 Assistant Stock Verifier
2 Hospital Secretaries
1 Chief Clerk
4 First Grade Clerks
44 Second and Third Grade Clerks

General

1 Senior Specialist
3 Specialists
1 Senior Medical Officer (Health)
2 Medical Officers (Health)
1 Senior Medical Officer
32 Medical Officers (including Lady Medical Officers)
3 Medical Officers—Endemic Diseases Control Unit
2 Physiotherapists

Nursing

1 Matron
2 Senior Nursing Sisters
13 Nursing Sisters
3 Health Sisters
1 Supervisor of Midwifery
8 Senior Staff Nurses
16 Staff Nurses, Grade I
20 Staff Nurses, Grade II
194 Nurses and Midwives
220 Student Nurses and Student Midwives
1 Chief Surgical Assistant
1 Senior Surgical Assistant
1 Surgical Assistant
30 Probationer Infectious Diseases Nurses
1 Linen Store Supervisor
1 Laundry Supervisor
1Senior Health Visitor
1 HealthVisitor, Grade I
3 Health Visitors, Grade II
9 Health Visitors, Grade III
1 Supervisor of Village Midwives

Laboratory

1 Senior Pathologist
1 Pathologist
1 Laboratory Superintendent
1 Laboratory Assistant, Grade I
3 Laboratory Assistants, Grade II
4 Laboratory Assistants, Grade III
5 Laboratory Assistants-in-Training

Pharmaceutical

1 Chief Dispenser
3 Assistant Chief Dispensers
4 Senior Dispensers
16 Dispensers, Grade I
48 Dispensers, Grades II and III

Radiological

5 Radiographers

Dental

6 Dental Officers
2 Dental Mechanics

Mental

1 Keeper
1 Chief Attendant
60 Senior Attendants and Attendants

Health

4 Chief Health Superintendents
1 Entomologist
10 Health Superintendents
2 Registrar of Births and Deaths
2 Medical Entomological Assistants
7 Health Superintendents -in-Training
3 Health Inspectors, Grade I
50 Health Inspectors,Grades II and III
38 Health Inspectors-in-Training

Medical Stores

1 Storekeeper and Inspecting Pharmacist
2 Assistant Storekeepers and Inspecting Pharmacists
3 Store Assistants, Grade I
6 Store Assistants, Grade II
3 Store Assistants, Grade III
12 Store Issuers

Endemic Diseases Control Unit

2 Senior Attendants, Class I
15 Senior Attendants, Class II
63 Attendants and Learners

Transport

1 Transport Foreman
1 Motor Mechanic
3 Senior Drivers
39 Drivers

Miscellaneous

Stokers, Cooks, Porters, Ward Attendants, Messengers, Packers, Telephone Operators, Sewing Maids, Mosquitoe Spotters, Special Constales, Carpenters, etc.

2—FINANCE

Expenditure during past three years:—

	1954	1955	1956
	£	£	£
Personal Emoluments ..	214,561	248,039	341,299
Other Charges	241,536	240,638	223,588
Total	456,097	488,677	564,887

In addition there was the following expenditure on Medical schemes under the Colonial Development and Welfare Act:—

	Revised Estimated Total Cost of Scheme	*Expenditure to 31st December, 1956*
	£	£ s. d.
Protectorate Health Centres	11,444	10,981 1 6
Health Centres—Colony	5,400	0 19 4
New Hospital, Kenema	10,804	5,746 19 10
New Hospital, Koidu	21,619	13,659 3 7
New Hospital, Magburaka	27,595	19,283 17 0
Lungi Hospital	17,598	15,535 3 3
New Hospitals, Kambia and Port Loko ..	22,420	19,350 19 9
Tuberculosis Hospital, Lakka	7,800	1,761 5 0
Extensions to Provincial and Princess Christian Hospital	8,000	1,326 10 7

3—HOSPITAL SERVICES

A. Government Hospital Beds

NUMBER AND CATEGORY OF BEDS

Name and Location of Hospital	*General*	*Obstetrical*	*Tuberculosis*	*Infectious*	*Mental*	*Remarks*
A. Colony:						
Connaught	150	—	—	—	— +	31 cots
Connaught Annexe ..	20	—	—	—	— +	3 ,,
Hill Station	31	—	—	2	1 +	3 ,,
Maternity	—	52	—	—	— +	43 ,,
Murray Town	—	—	—	40	—	
Lakka Tuberculosis ..	—	—	50	—	—	
Kissy Mental	—	—	—	—	112	
King George V Memorial Home	64	—	—	*10	—)For the aged	
Female Infirmary ..	32	—	—	—	—)and indigent	
Princess Christian ..	23	—	—	—	—	—
B. Protectorate:						
Bo	76	10	10	—	— +	12 cots
Bo Annexe	4	—	—	—	—	
Bonthe	32	6	—	2	— +	4 ,,
Moyamba	17	2	—	—	— +	2 ,,
Pujehun..	22	—	—	—	— +	2 ,,
Kailahun	13	3	—	—	— +	3 ,,
Makeni	23	4	—	—	— +	2 ,,
Port Loko	18	—	—	—	— +	4 ,,
Kabala	38	1	—	—	— +	4 ,,
Lungi	12†	—	—	—	—	
Kenema	28	4	—	—	—	
Magburaka	20	3	1	—	— +	4 ,,
	623	85	61	54	113 +	117 cots

*For Leprosy

†The twelve beds in this Institution are reserved for emergency and in the event of an accident to Aircraft.

B. ATTENDANCES AT GOVERNMENT HOSPITALS

Name of Institution	In-patients	OUT-PATIENTS		
		New cases	Subsequent Attendances	Totals Attendances
A. COLONY:				
Connaught	2,795	42,495	87,489	129,984
Hill Station	409	1,378	3,737	5,115
Maternity	3,180	—	—	—
Cline Town	—	16,545	41,447	57,992
Total ..	6,384	60,418	132,673	193,091
B. PROTECTORATE:				
Bo	2,545	28,196	69,017	97,213
Njala	—	9,147	6,381	15,528
Bonthe	892	9,296	8,904	18,200
Moyamba	722	9,334	11,884	21,218
Makeni	761	8,054	15,459	23,513
Pujehun	512	9,156	5,011	14,167
Kenema	651	12,890	20,917	33,807
Kailahun	573	7,628	38,219	45,847
Port Loko	438	13,709	23,780	37,489
Magburaka (opened 9/1956) ..	170	8,273	11,707	19,980
Kabala	510	7,190	6,685	13,875
Lungi		5,452	12,019	17,471
Total	7,774	128,325	229,983	358,308
COLONY HOSPITALS	6,384	60,418	132,673	193,091
PROTECTORATE HOSPITALS ..	7,774	128,325	229,983	358,308
GRAND TOTAL ..	14,158	188,743	362,656	551,399

C—MEAN ANNUAL HOSPITAL ATTENDANCES DURING TRIENNIAL PERIODS FROM 1948 TO 1956

A. COLONY:

Including Cline Town and Maternity Home	IN-PATIENTS	OUT-PATIENTS		
		New cases	Subsequent Attendances	Total Attendances
1948–1950	4,908	56,888	184,875	241,763
1951–1953	4,890	54,741	188,530	243,271
1954–1956	5,709	65,480	163,744	229,224
B. PROTECTORATE:				
1948–1950	3,973	67,336	183,271	284,273
1951–1953	4,694	106,283	189,660	295,943
1954–1956	6,821	115,836	253,991	369,827

D—MATERNITY AND CHILD WELFARE SERVICES

Attendances and bed space are included under Hospital Services above.

Freetown Maternity Home.

In Freetown, out of a total of 2,164 deliveries there were 1,689 normal cases and 475 abnormalities.

Sixty-three of the total of 2,164 deliveries were twin deliveries. 2,227 babies were born of which 236 were described as premature including 19 sets of twins.

One hundred and seventy two still births and 113 post-natal deaths occurred in the 1991 full-term infants.

Thirty-seven still births and 32 post-natal deaths occurred in the 236 premature infants.

There were 22 maternal deaths.

In one of the two Colony Health Centres in operation 48 deliveries were recorded.

Domiciliary Midwifery Service.

There were 181 bookings during the year compared with 80 in 1955. 65 patients were delivered at home, 45 were admitted to the Maternity Hospital for complications and 14 made other arrangements for delivery.

In the Provincial Hospitals 1,186 women were admitted to the maternity wards. The total number of deliveries recorded was 1,093 of which 439 were recorded in Bo Hospital.

In the Provincial Health Centres 491 deliveries were recorded.

Maternity and Child Welfare Clinics.

ATTENDANCES AT FREETOWN CLINICS

	New Cases		*Subsequent Attendances*	
	1955	1956	1955	1956
Ante-natal and Post-natal clinics ..	8,430	6,550	21,242	16,111
Gaenycological V.D. Clinic ..	425	665	3,788	3,192
Infant Welfare Clinic	2,976	4,629	9,164	14,064

ATTENDANCES AT BO ANTE-NATAL CLINIC

	1954	1955	1956
New Cases	831	942	1,356
Subsequent Attendances ..	2,563	4,019	5,321

ATTENDANCES AT BO INFANT WELFARE CLINIC

	1954	1955	1956
New Cases	778	801	977
Subsequent Attendances ..	3,530	3,958	4,120

SCHOOL MEDICAL SERVICES

	First Attendance		*Subsequent Attendances*		*Total Attendances*	
	1955	1956	1955	1956	1955	1956
Freetown School Clinic	25,173	18,317	15,179	12,770	40,352	31,087
St. Joseph's Clinic ..	13,007	13,926	8,468	7,380	21,475	21,306

E—MENTAL HOSPITAL

Numbers of patients admitted to the Kissy Mental Hospital during the year:

	Males	*Females*	*Total*
Remaining inhospital on 31st December, 1955 ..	138	50	188
Admissions	36	13	49
Discharges	22	1	23
Absconded	—	—	—
Deaths	8	3	11
Remaining in hospital on 31st December, 1956 ..	144	59	203

The causes of death were reported to have fallen into three main groups:—
(i) Diseases of old age; (ii) Syphilis; (iii) Intestinal parasites and infection.

F—INSTITUTIONS

Numbers of admissions and discharges—Kissy Female Infirmary and King George V Memorial Home:

	Males	*Females*	*Total*
Remaining in hospital 31st December, 1955	80	27	107
Admissions	31	16	47
Discharges	12	1	13
Absconded	—	2	2
Deaths	21	9	30
Remaining in hospital 31st December, 1956	78	31	109

G—ENDEMIC DISEASES CONTROL UNIT

Thirty-seven new cases of Sleeping Sickness were diagnosed and treated in the centres during the year. This showed a decrease of 31 on the figure for 1955. Of these cases, 29 came from the Kailahun Endemic Area, 7 from Kenema District and 1 from Kono. The highest figure in any one town was recorded at Kangama a town near the Liberian border.

II—Treatment Centre Returns

	S.S.	*Yaws*	*B'zia*	*Dysentery Amoebic*	*Lep-rosy*	*Intestinal Diseases*	*Other diseases*	*Total New Cases*	*Total Atten-dances*
South-eastern Province ..	37	1,874	2,681	1,185	137	6,952	56,435	70,537	109,814
Northern Province ..	—	475	18	61	77	600	6,348	6,343	53,454

III—YAWS CAMPAIGN

Details of Findings in First Re-Survey

Chiefdom	*ADULTS*		*CHILDREN*		*Total Treated*
	Infectious Yaws	*Total Treated*	*Infectious Yaws*	*Total Treated*	
Kafesimira ..	134	4,793	212	3,770	8,563
Kalansogoia ..	33	3,603	138	2,416	6,019
Sambaia ..	21	4,011	86	2,891	6,902
Total ..	188	12,407	436	9,077	21,484

Details of Findings in Initial Treatment Survey

Chiefdom	*No. of Taxpayers*	*Adults seen*	*Children seen*	*Total Yaws*	*Total Injecetd*
Kafe Simiria ..	2,191	4,930	3,989	2,095	8,019
Kalansogoia ..	2,092	3,960	2,808	2,264	6,768
Sambaia	2,201	3,519	2,298	1,739	5,817
Nieni	2,988	4,083	3,217	2,152	7,300
Diang	1,741	3,405	2,402	2,191	5,807
Neya	3,082	3,368	2,775	1,433	6,143
Mongo	3,442	4,985	3,339	2,192	8,324
Sulima	3,264	3,874	2,672	1,121	6,546
Sinkunia ..	1,508	4,063	2,266	1,217	6,329
Musaia	849	2,063	1,257	545	3 ,320
Bafodea	2076	3,417	2,142	1,324	5 ,559
Yagala	1,,983	4,109	2,773	1,167	6,882
Sengre	2,541	4,312	2,749	1,436	7,061
Kassunko ..	2,978	5,995	3,710	2,307	9,705
Biriwa	2,942	8,695	5,973	3,773	14,668
Safroko Limba ..	3,900	8,588	5,353	2,696	13,941
Bombali Sebora ..	2,942	10,942	7,300	3,731	18,242
Makari Gbanti ..	2,912	8,671	5,580	3,687	14,251
Paki Masabong ..	1,813	5,484	3,733	1,497	9,217
Kholifa	2,721	10,682	6,964	4,053	17,646
Tane	796	5,644	3,914	1,492	9,550
Bonkolenken ..	2,786	12,483	8,757	3,670	21,240
Kuniche Barina ..	1,179	3,299	2,180	893	5,479
Kuniche	2,482	7,535	5,113	1,885	12,648
Total ..	57,409	138,106	93,264	50,560	230,462

H—ENTOMOLOGICAL LABORATORY

Full statistics are given in the Laboratory's report which are published half-yearly.

I—PATHOLOGICAL LABORATORY

Examinations performed in the Freetown Laboratory.

BLOOD FILMS						13,138
	Total Attendances	*P. falc.*	*P. mal.*	*Gamet*		
Africans	12,862	957	4	4		
Europeans	276	2	—	—		
SPUTUM						1,837
	Africans	*Positive*	*Europeans*	*Positive*		
Tubercle bacilli	1,826	246	7	1		
			Asiatics	*Positive*		
			5	1		
SEROLOGICAL KHAN TESTS + LAUGHLEN TESTS						8,238
	Total Attendances	*Strong*	*Positive*	*Weak doubtful*		
Africans	8,162	569	1,012	388		
Europeans	68	—	—	1		
Asiatics	8	—	—	—		
Laughlen Tests	115	36				
BLOOD SEDIMENTATION RATE						2,083
	Africans	*Europeans*	*Asiatics*			
	1,948	107	28			
FAECES						6,995
Africans	6,696					
Europeans	226					
Asiatics	73					
	Africans	*Europeans*	*Asiatics*			
Taenia	17	1	1			
Ascaris	651	1	1			
Ankylostomes	230	—	—			
Strongyloides	163	—	—			
Trichuris	79	—	—			
Ent. Histolytica (amoeba)	71	2	—			
Ent. Histolytica (cysts)	2	—	—			
Giardia	3	—	—			
Trichomonas	36	1	—			
Sch. Mansoni	2	—	—			
Blood	101	8	—			
Pus	540	10	—			
Balantidium coli	1	—	—			
Oxyuris	12	—	—			
Mucus	—	14	—			
Benzidine test	22	2	—			
Occult blood	3	2	—			
Charcot crystals	2	—	—			
URINE						4,471
	Africans	*Enropeans*				
Total Attendances	4,417	54				
Albumen	2,180	36				
Sugar	195	2				
Acetone	28	1				
Casts	156	2				
Trichomonas	70	—				
Sch. Haematobium	30	—				
Pus	1,261	19				
Blood	172	2				
Oxyhaemoglobin	1	—				
Strongyloides	1	—				
Benzidine test	2	—				
VENEREAL DISEASES						482
Total attendance	463	19				

	Africans	*Europeans*		
Urethral smear	327	11		
Gonococci	54	3		
Vaginal smear	58	3		
Gonococci	1	—		
Trichomonas	9	—		
Eye Smear	8	—		
Gonococci	—	—		
D. G. I.	5	2		
T. Pallidum	—	—		
BATERIOLOGY (General)				1,451
FAECES				765
Salm. typhi	2			
Sh. Flexneri W	24			
„ „ 103	9			
„ „ Z	16			
„ „ VZ	1			
„ „ V	4			
„ Shigae	1			
„ Sonnei	7			
„ Schmitzi	11			
S. typhi O	2			
S. typhi xi	3			
Newcastle	2			
URINE				287
B. Coli	80			
B. proteus	1			
Staph albus	30			
S. Pyocyaneus	1			
BLOOD				55
Salm. typhi	3			
Y. Streptococci	1			
B. Coli	1			
C.S. F.				25
B. Coli	4			
PUS				44
S. Pyogenes	3			
S. aureus	3			
B. Coli	1			
S. alleus	1			
EYE SWAB				14
S. Albus	5			
B. Coli	1			
S. Saprophyticus	1			
Gonococci	1			
S. aureus	1			
B. Citrus	1			
THROAT SWAB				24
S. Saprophyticus	2			
S. aureus	1			
Streps Haemolytic	1			
Diphtheria	2			
NASAL SWAB				2
B. Coli	2			
CERVICAL SWAB				5
Staph. albus	2			
Staph. pyogens	1			
B. Coli	1			
SPUTUM				16
N. Catarrhates	2			
A. F. B.	1			
B. Coli	2			
S. Haemolytic	1			
STERILITY TESTS				21
VAGINAL SWAB				30
S. albus	8			
B. Coli	6			
S. Pyogenes	1			
S. Haemolytic	1			

Trichomonas	1		
B. proteus	1		
BLOOD CLOT			—
PLEURAL FLUID			25
S. Saprophyticus	2		
A. Aureus	1		
S. Albus	1		
TONGUE SWAB			—
KNEE FLUID			3
SINUS SWAB			1
ULCER SWAB			7
URETHRAL FLUID			6
ABDOMINAL FLUID			1
LUMBAR PUNCTURE			—
INTESTINAL SWAB			—
EAR SWAB			4
STOMACH CONTENTS			—
VARIOUS			90
C. S. F. (Kahn)			26

	Europeans	*Africans*
	Nil	26
Positive:—	Nil	Nil

C. S. F. (Organisms)		27

	Africans	*Europeans*	
	27	—	
MISCELLANEOUS			902
Nasal swab and skin scraping—Arican	44		
Europeans	6		
Blood grouping	362		
Gland puncture	4		
Sperm Count	105		
Stomach Contents	6		
C.S.F.	58		
General	317		
BIOCHEMISTRY			785

	Africans	*Europeans*	*Asiatics*
Blood Urea	206	4	—
Paul Bunnell	1	—	—
Blood sugar	104	6	—
Glucose tolerance	30	2	1
Gastric analysis	4	—	—
Urine	9	—	
Blood calcium	26	3	
Liver Function tests	124	25	
Acid phosphates	8	1	
Alkaline Phosphates	—	—	
C.S.F.	67	—	
Blood Cholesterol	13	2	
Plasma proteins	29	6	
Various	113	1	

HISTOLOGY

96 Specimens were received.

EXAMINATION FOR RABIES

Dog Brains	12 (1 Positive)
Cat Brains	3 (All Negative)

GENERAL

Postmortems, Medical — Legal and Surgical	47	
Endometriial Currettings	21	
Biopsy Specimens	13	
POSTMORTEM EXAMINATION		198
Clinical	60	
Coroner's	138	
H. M .Prisons	8	
Kissy Mental Hospital	8	
Approved School, Wellington	1	
Accidents, sudden deaths, etc.	121	

CAUSES OF DEATHS:—

CENTRAL NERVOUS SYSTEM		20
Subarachnoid haemorrhage	1	
Cerebral haemorrhage	10	
Cerebral thrombosis	1	
T.B.Meningitis	1	
Meningococcal meningitis	1	
Encephalitis	2	
Celebral malaria	2	
Neurofibroma cervical cord	1	
Syphilis (G.P.I)	1	
CARDIO-VASCULAR SYSTEM		30
Hypertensive cardiac failure	6	
Myocardial degeneration	8	
Congenital heart disease	2	
Syphilitic aortitis	1	
Rupture of aortic aneurysm	5	
Aortic stenosis	2	
Aortic incompetence	1	
Coronary artery disease	3	
Coronary thrombosis	1	
Chronic pericarditis	1	
RESPIRATORY SYSTEM		21
Pulmonaryabscess	1	
Pneumonia	8	
Broncho pneumonia	2	
Pulmonary tuberculosis	6	
Tuberculus broncho pneumonia	1	
Miliary tuberculosis	1	
Emphysema & Chronic bronchitis	1	
Empyema	1	
ALIMENTARY SYSTEM		15
Primary carcimona of the liver	3	
Perforated gastric ulcer	2	
Cirrhosis	1	
Congenital obstruction to biliary tract	1	
Pyloric stenosis	1	
Intestinal obstruction	2	
Intussusception	1	
Volvulus pelvic colon	1	
Volvulus small intestine	1	
Peritonitis	1	
Adenocarcinoma of colon	1	
REPRODUCTIVE SYSTEM		6
Salpingitis	1	
Ruptured ectopic	2	
Septic abortion	1	
Antepartum haemorrhage	1	
Eclampsia	1	
RENAL		5
Pyelitis	1	
Hypernephroma	1	
Pyelonephritis	1	
Pyonephrosis	1	
Prostatic obstruction	1	
SPECIFIC INFECTIOUS PARASITES		32
Amoebic dysentery	7	
Amoebic abscess	6	
Malaria	6	
Typhoid	6	
Ancylostomiasis	3	
Tetanus	2	
Bacillary dysentery	2	
GENERAL		13
Septicaemia	2	
Acute enteritis	1	
Acute infantile eczema	1	
Malnutrition	6	
Diabetes	1	

Hypoglycaemic coma	1		
Neuroblastoma of adrenal	1		
TRAUMATIC AND ACCIDENTAL			56
Fracture of pelvis	5		
Fracture of spine	2		
Fracture of skull	8		
Extradural haematoma	2		
Laceration of brain	1		
Burning	4		
Multiple injuries	15		
Haemorrhage from lacerations	2		
Crushing of thorax	1		
Drowning	9		
Electrocution	1		
Cut Throat	1		
Suspected poisoning	1		
Fish bones in Larynx	1		
Inhalation of vomit	1		
Inhalation of water	2		
WIDAL REACTION			312
	Africans	*Europeans*	
Agglutination over 1:20	287	25	
S. Typhi H	82	18	
S. Typhi O	19	2	
S. para typhi A	15	9	
,, ,, B	13	11	
,, ,, C	—	—	
S. Enteritidis	10	1	
S. Group	7	12	
D. Proteus x 19	2	2	
B. ,, x 2	2	1	
S. Typhi Vi	—	—	
HAEMATOLOGY			10,274
	Africans	*Europeans*	
Red cell count	1,551	35 = 1,586	
Haemoglobin	2,915	176 = 3,091	
Cell Volume	2,910	156 = 3,066	
White cell count	2,377	154 = 2,531	

HAEMOGLOBIN

	Over 12 gm.	*10-12 gm.*	*7-10 gm.*	*under 7 gm.*
African Male	464	491	249	40
,, Female	353	384	210	91
Maternity	105	195	270	63
European Male	80	5	4	—
,, Female	53	24	10	—

WATER EXAMINATION			191
	Total	*Unsatisfactory*	
Freetown	81	—	
Hill Station	63	—	
Kissy	10	—	
Lungi	19	—	
Others	18	2	

MEDICO-LEGAL EXHIBITS

TOTAL EXHIBITS EXAMINED			133
1. Cloth, clothing, etc.		60 exhibits	
Seminal stains found in	1		
Blood stains found in	29		
2. Blood stains on broken glass	1		
3. Knives, matchets, chisels, etc.	11		
Blood stains found on	2		
In the above exhibits the blood group was determined in	17		
4. Swabs, smears	28		
Gonococci present	2		
Spermatozoa present	1		
5. Blood alcohol was determined	32		
6. Identification of Cannabis Sativa	1		

VETERINARY					
Rats ..	3,829	r. rattus ..	2,773	R. novengicus	1,056
Fleas ..	20	X. cheopis ..	16	X braziliensis	4

YELLOW FEVER INNOCULATIONS 2,293

SUMMARY OF THE VARIOUS TESTS UNDERTAKEN IN THE LABORATORY DURING THE YEAR 1956

	Total
Blood films for malaria	13,138
Blood Sedimentation rate	2,083
General Haematology (4,246 patients comprising)	10,274
Faeces (microscopy)	6,995
Urine examination	4,471
Sputum for tuberculosis	1,838
Bacteriology (General)	1,451
Bacteriology (Venereal Disease.)	482
Khan tests	8,238
Laughlen tests	8,353
Biochemistry	785
Histology	96
Postmortems	198
Medico-Legal	133
Miscellaneous	902
Widal Reaction	312
Water examination	191
GRAND TOTAL..	59,940

TOTAL NUMBER OF SPECIMENS EXAMINED IN BO LABORATORY—1956

Laughlen test	5,000
Blood films	5,461
Urine	3,999
Blood count	3,890
Sputum	688
Venereal Diseases	78
Miscellaneous	2,300
	21,416

J—EX-RAY UNIT

X-Ray units are available at the Connaught Hospital, Freetown, and at Bo Hospital and both are in charge of a Radiographer. The following table records the number of examinations:—

	FREETOWN				
	1952	1953	1954	1955	1956
Total patients examined ..	6,186	5,876	5,795	6,228	8,580
Radiographic examinations ..	11,616	8,321		12,979	14,189
Fluoroscopic examinations ..	673	574		762	921
Total Radiological examinations	12,289	8,895	*	13,741	15,110

In Bo 2,222 patients were examined during the year compared with 1,503 in 1955.

*Figures for 1954 are not available.

OPERATING THEATRE—CONNAUGHT HOSPITAL

The following table records the number of major and minor operations performed in the Connaught Hospital Operating Theatre during the past five years:—

	Total	*Cured*	*Relieved*	*Unrelieved*	*Died*
1952	4,053	2,211	1,789	33	20
1953	1,836	713	1,093	10	20
1954	3,836	2,335	1,465	10	26
1955	3,796	1,756	1,976	24	40
1956	4,004	1,979	1,950	53	22

K—PORT HEALTH

Freetown Port

Seven hundred and twenty ships were boarded during the course of the year of which 442 received radio pratique. 7,201 vaccinations were performed at the Port Health Office.

As a result of the outbreak of smallpox the Port was declared infected under the International Sanitary Regulations in August, 1956 and remained so until the end of the year.

In view of the increasing numbers of ships from the far East which had to use the Port as a result of the Suez crisis the regulation requiring the use of rat guards on mooring ropes was rigidly enforced. Other routine anti-plague measures including the trapping of rats were carried out.

Freetown Airport—Lungi

Seven hundred and thirty-six aircraft visited and were sprayed with insecticides.

Nine cases of smallpox occurred outside the perimeter fence during the year. The airport was declared an infected Airport under the International Sanitary Regulations in August and remained so for the rest of the year. 6,924 people were vaccinated against smallpox in and around the Airport during the year.

L—DENTAL SERVICE

The figures given for treatment in Freetown are:—

	Patient	*Fillings*	*Extractions*	*Other Treatment*
1951	9,399	1,548	7,865	140
1952	10,909	2,372	8,377	1,066
1953	7,789	1,192	6,120	389
1954	6,134	702	5,878	731
1955	8,574	1,219	5,031	2,324
1956	9,783	1,186	8,044	971

The figures for treatment given in Bo are:—

Patients	*Fillings*	*Extractions*	*Other Treatment*
1,775	200	1,555	—

M—LIST OF DISPENSARIES AND HEALTH CENTRES

All dispensaries and health centres not attached to a hospital are listed here though in the Colony there still has not been a complete handing over in some cases:—

LIST OF DISPENSARIES AND HEALTH CENTRES

Area	*Place*	*Type of Unit*
Colony	Regent	Dispensary
,, ...	Kent	,,
,, ...	York	,,
,, ...	Waterloo	,,
,, ...	Songo	Lock-up
,, ...	Hastings	Dispensary
,, ...	Newton	Lock-up
,, ...	Kissy	Dispensary
,, ...	Wellington	Lock-up
,, ...	Bananas	,,
,, ...	Hamilton	,,
,, ...	Goderich	,,
,, ...	Russell	,,
South-western Province	Bauya	Dispensary
,, ,, ..	Mabang	,,
,, ,, ..	Mano	Health Centre
,, ,, ..	Koribundu	,,
,, ,, ..	Sembehun	,,
,, ,, ..	Sulima	Dispensary

LIST OF DISPENSARIES AND HEALTH CENTRES—*continued*

Area	*Place*	*Type of Unite*
South-western Province—*continned*		
,, ,, ..	Sumbuya	Health Centre
,, ,, ..	Gbap	Dispensary
,, ,, ..	York Island	,,
,, ,, ..	Zimi	Health Centre
,, ,, ..	Madina	,,
,, ,, ..	Shenge	,,
South-eastern Province ..	Blama	Dispensary
,, ,, ..	Pendembu	Health Centre
,, ,, ..	Daru	,,
,, ,, ..	Koidu	Dispensary
,, ,, ..	Kaiyima	Health Centre
Northern Province ..	Magburaka	Dispensary
,, ,, ..	Yonnibana	Health Centre
,, ,, ..	Kambia	,,
,, ,, ..	Batkanu	Dispensary
,, ,, ..	Lunsar	Health Centre
,, ,, ..	Falaba	,,
,, ,, ..	Yele	,,
,, ,, ..	Numea	,,
,, ,, ..	Gbinti	,,
,, ,, ..	Bumbuna	,,
,, ,, ..	Makali	,,
,, ,, ..	Kychom	,,

N—ATTENDANCES AT DISPENSARIES AND HEALTH CENTRES

Area	*New cases*	*Subsequent Attendances*	*Total Attendances*
Colony	31,316	44,125	75,441
South-western Province ..	49,434	79,910	129,344
South-eastern Province ..	19,977	34,851	54,828
Northern Province	44,006	85,517	129,523
GRAND TOTAL ..	144,733	244,403	389,136

4—PUBLIC HEALTH

A. VITAL STATISTICS

Report of Chief Registrar of Births and Deaths, Freetown and Colony.

Without a full and up-to-date census it is not possible to give accurate vital statistics of birth rates and death rates. Available vital statistics of births and deaths are given in Chapter I. Only a very small proportion of deaths are medically certified by qualified medical practitioners and therefore detailed satistics of mortality from the principal diseases cannot be given, but records of diseases and deaths in government hospitals indicate the most important observed causes of disease and mortality. Infant mortality in Freetown was 133 infant deaths per 1,000 live births, but out side Freetown were maternity services are still relatively undeveloped, infant mortality is believed to be much higher.

The registration of births and deaths which has been compulsory in the Colony for some years now is only compulsory in seven chiefdoms in the protectorate while 137 chiefdoms accept it on a voluntary basis. The registrations recorded in the Protectorate are therefore unreliable.

BIRTHS AND DEATHS REGISTERED IN FREETOWN AND THE COLONY, 1956

LIVE BIRTHS

	Male	*Female*	*Total*
Freetown	1,990	1,933	3,923
Rural Areas	786	846	1,632
Bonthe (Sherbro)	53	54	107
	2,829	2,833	5,662

DEATHS

	Male	*Female*	*Total*
Freetown	1,055	849	1,904
Rural Areas	637	635	1,272
Bonthe (Sherbro)	71	63	134
	1,763	1,547	3,310

BIRTHS, STILL-BIRTHS AND INFANT MORTALITY IN FREETOWN

	Male	*Female*	*Total*
Live Births	1,990	1,933	3,923
Still-Births	137	107	244
Deaths under 1 year of age ..	286	234	520

INFANT MORTALITY RATE

Deaths under one year per 1,000 live births)—132.55
still-birth rate, still birth per 1,000 births—62.1

Of the 520 deaths under one year of age 297 died in the first month of life, a rate af 85 per 1,000 live births.

FREETOWN INFANT MORTALITY RATES FOR THE PAST NINE YEARS HAVE BEEN

1948	1949	1950	1951	1952	1953	1954	1955	1956
159	158	148	119	143	116	110	124.9	132. 55

Rural Areas—Colony

In the Rural Areas of the Colony the recorded registrations of births and infant deaths are:—

	Male	*Female*	*Total*
Live Births	786	846	1,632
Deaths under 12 months ..	138	138	276

In Sherbro Judicial District, the recorded registrations of births and infant deaths are:—

	Male	*Female*	*Total*
Live Births	53	54	107
Deaths under 12 months ..	10	12	22
Infant Mortality Rate 205.6			

B. Infectious Diseases Notifications.

The following infectious diseases were notified during the year 1956:—

	Cases	*Deaths*
Cholera	—	—
Plague	—	—
Smallpox	946	19
Typhus Fever (Murine)	—	—
Yellow Fever ..	—	—
Cerebro-Spinal Menigitis ..	26	8
Dysentery ..	2,709	4
Influenza	—	—
Pneumonia ..	1,023	17
Poliomyelitis ..		—
Relapsing Fever ..	—	—
Sleeping Sickness ..	41	—
Enteric Fever ..	53	3
Chicken Pox ..	494	—

C. Vaccinations.

The following vaccinations were performed during the year:—

	Total
Smallpox	612,880
Yellow Fever	2,293

T. P. EDDY,
Director.

APPENDIX I

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

Intermediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
A 1	001–008	Tuberculosis of respiratory system	6	—	—	—	8	2	81	45	4	1	197	91
A 2	010	Tuberculosis of meninges and central nervous system	—	—	—	—	—	—	3	2	3	1	4	2
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands	—	—	—	—	—	—	1	—	1	—	1	1
A 4	012, 013	Tuberculosis of bones and joints	—	—	—	—	—	—	3	—	1	—	4	1
A 5	014–019	Tuberculosis, all other forms	—	—	—	—	—	—	1	4	—	1	10	5
A 6	020	Congenital syphilis	—	—	—	—	—	—	—	—	—	—	131	34
A 7	021	Early syphilis	—	—	—	—	—	—	2	6	—	—	96	23
A 8	024	Tabes dorsalis	—	—	—	—	—	—	1	1	—	—	1	1
A 9	025	General paralysis of insane	—	—	—	—	—	—	—	—	—	—	—	—
A 10	022, 023, 026–029	All other syphilis	2	—	—	—	5	—	7	4	—	—	191	44
A 11	030–035	Gonococcal infections	—	—	—	—	5	1	114	48	4	2	8,045	2,575
A 12	040	Typhoid fever	4	4	1	—	5	5	28	10	5	5	28	10
A 13	041, 042	Paratyphoid fever and other salmonella infections	—	—	—	—	—	—	3	2	—	—	3	1
A 14	043	Cholera	—	—	—	—	—	—	—	2	—	—	—	2
A 15	044	Brucellosis (undulant fever)	—	—	—	—	—	—	—	—	—	—	—	—
A 16(*a*)	045	Bacillary dysentery	8	—	—	—	9	—	17	14	7	1	57	27
(*b*)	046	Amoebiasis	6	1	—	—	6	2	122	50	11	1	328	157
(*c*)	047, 048	Other unspecified forms of dysentery ..	1	—	—	—	10	4	55	53	—	4	160	127
A 17	050	Scarlet fever	—	—	—	—	—	—	—	—	—	—	—	—
A 18	051	Streptococcal sore throat	4	2	—	—	12	19	3	3	—	—	172	82
A 19	052	Erysipelas	1	—	—	—	1	—	—	—	—	—	—	—
A 20	053	Septicasemia and pyaemia	—	—	—	—	—	—	4	1	3	1	4	3
A 21	055	Diptheria	—	—	—	—	—	—	—	—	—	—	—	—
A 22	056	Whooping cough	4	4	—	—	4	5	15	11	3	1	254	252
A 23	057	Meningococcal infections	—	—	—	—	—	—	15	6	7	2	15	6
		Carried forward	36	11	1	—	65	38	475	262	49	20	9,701	3,444

APPENDIX I—*Continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

Inter-mediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
		Brought forward	36	11	1	—	65	38	475	262	49	20	9,701	3,444
A 24	058	Plague	—	—	—	—	—	—	—	—	—	—	—	—
A 25	060	Leprosy	—	—	—	—	—	—	3	1	1	—	233	122
A 26	061	Tetanus	1	—	—	—	1	—	40	62	18	17	61	70
A 27	062	Anthrax	—	—	—	—	—	—	—	—	—	—	—	—
A 28	080	Acute Poliomyelitis	—	—	—	—	—	—	1	2	—	—	1	2
A 29	082	Acute infectious encephalitis	—	—	—	—	—	—	1	—	—	—	1	—
A 30	081, 083	Late effects of acute poliomyelitis and acute infectious encephalitis	—	—	—	—	—	—	—	—	—	—	—	—
A 31	084	Smallpox	—	1	—	—	—	1	48	29	5	2	146	118
A 32	085	Measles	—	1	—	—	1	1	13	11	—	—	272	175
A 33	091	Yellow fever	—	—	—	—	—	—	—	—	—	—	—	—
A 34	092	Infectious hepatitis	5	—	—	—	5	—	17	6	1	—	29	8
A 35	094	Rabies	—	—	—	—	—	—	—	—	—	—	—	—
A 36(*a*)	100	Louse-borne epidemic typhus	—	—	—	—	—	—	—	—	—	—	—	—
(*b*)		Flea-borne endemic typhus (murine)	—	—	—	—	—	—	—	—	—	—	—	—
(*c*)	104	Tick-borne epidemic typhus	—	—	—	—	—	—	—	—	—	—	—	—
(*d*)	105	Mite-borne epidemic typhus	—	—	—	—	—	—	—	—	—	—	—	—
(*e*)	102, 103, 106-108	Other and unspecified typhus	—	—	—	—	—	—	—	—	—	—	—	—
A 37(*a*)	110	Vivax malaria (benign tertian)	—	—	—	—	—	—	6	3	—	—	6	3
(*b*)	111	Malariae malaria (quartan)	—	—	—	—	—	—	—	—	—	—	—	—
(*c*)	112	Falciparum malaria (Malignant tertian) ..	44	8	1	—	57	13	309	239	13	9	1,433	732
(*d*)	115	Blackwater fever	—	—	—	—	—	—	1	—	—	—	1	—
(*e*)	113, 114, 116, 117	Other and unspecified forms of malaria ..	12	6	—	—	42	14	489	393	29	18	12,892	8,678
A 38(*a*)	123.0	Schistosomiasis vesical (s. haematobium) ..	1	—	—	—	1	—	2	4	—	—	362	110
(*b*)	123.1	Schistosomiasis intestinal (S. mansoni) ..	—	—	—	—	—	—	—	2	—	—	7	4
		Carried forward	99	27	2	—	172	67	1,405	1,014	117	66	25,145	13,466

APPENDIX I—*continued.*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

Intermediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
		Brought forward	99	27	2	—	172	67	1,405	1,014	117	66	25,145	13,466
A	38(*c*) 123.2	Schistosomiasis pulmonary (s. japonicum) ..	—	—	—	—	—	—	—	—	—	—	—	—
	(*d*) 123.3	Other and unspecified schistosomiasis ..	—	—	—	—	—	—	5	5	—	—	118	34
A	39 125	Hydatid disease	—	—	—	—	—	—	—	1	—	—	—	1
A	40(*a*) 127	Onchocerciasis	—	—	—	—	—	—	—	—	—	—	—	—
	(*b*)	Loiasis	—	—	—	—	—	—	—	—	—	—	—	—
	(*c*)	Filariasis (bancrofti)	—	—	—	—	—	—	7	—	—	—	34	8
	(*d*)	Other filariasis	—	—	—	—	—	—	12	2	—	—	56	18
A	41 129	Ankylostomiasis	1	—	—	—	1	—	16	17	—	—	175	111
A	42(*a*) 126	Tapeworm (infestation) and other cestode infestations	8	—	—	—	13	—	16	13	—	—	163	183
	(*b*) 130.0	Ascariasis	—	1	—	—	3	9	24	29	1	—	1,958	2,108
	(*c*) 130.3	Guinea worm (dracunculosis)	—	—	—	—	—	—	—	—	—	—	—	—
		Carried forward	108	28	2	—	189	76	1,485	1,081	118	66	27,649	15,929

APPENDIX I—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1956)

Intermediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
		Brought forward	108	28	2	—	189	76	1,485	1,081	118	66	27,649	15,929
A42	(*d*) 124, 128, 130.1, 130.2	Other diseases due to helminths ..	1	—	—	—	4	2	6	7	—	—	455	413
A43	(*a*) 037	Lymphogranuloma venereum ..	—	—	—	—	—	—	3	4	—	—	249	132
	(*b*) 038	Granuloma inguinale, venereal ..	—	1	—	—	—	1	11	11	—	—	247	119
	(*c*) 039	Other and unspecified venereal diseases ..	—	—	—	—	1	1	20	8	—	—	477	250
	(*d*) 049	Food poisoning infection and intoxication	—	—	—	—	—	—	4	4	—	—	7	7
	(*e*) 071	Relapsing fever	—	—	—	—	—	—	—	—	—	—	—	—
	(*f*) 072	Leptospirosis icterohæmorrhagica (Weil's disease)	—	—	—	—	—	—	—	—	—	—	—	—
	(*g*) 073	Yaws	—	—	—	—	1	1	13	4	—	—	4,426	3,365
	(*h*) 087	Chickenpox	—	1	—	—	—	1	9	9	—	—	158	53
	(*i*) 090	Dengue	—	—	—	—	—	—	—	—	—	—	—	—
	(*j*) 095	Trachoma	—	—	—	—	—	—	1	—	—	—	3	4
	(*k*) 096.7	Sandfly fever	—	—	—	—	—	—	—	—	—	—	—	—
	(*l*) 120	Leishmaniasis	—	—	—	—	—	—	—	—	—	—	—	—
	(*m*) 121 (*a*)	Trypanosomiasis gambiensis	—	—	—	—	—	—	—	—	—	—	—	1
	(*b*)	Trypanosomiasis rhodesiensis	—	—	—	—	—	—	—	—	—	—	—	—
	(*c*)	Other and unspecified trypanosomiasis ..	—	—	—	—	—	—	3	—	—	—	3	2
		Carried forward ..	109	30	2	—	195	82	1,555	1,128	118	66	33,674	20,275

APPENDIX I—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

Intermediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
		Brought forward	109	30	2	—	195	82	1,555	1,128	118	66	33,674	20,275
A	43(*n*) 131	Dermatophytosis	2	—	—	—	14	5	—	—	—	—	355	311
	(*o*) 135	Scabies	—	—	—	—	—	—	7	7	—	1	2,370	1,635
	(*p*) 036, 054, 059, 063, 064, 070, 074, 086, 088, 089, 093, 096.1–096.6 096.8, 096.9, 122, 132–134, 136–138	All other diseases classified as infective and parasitic	4	2	—	—	11	5	21	31	—	—	1,750	1,026
A	44 140–148	Malignant neoplasm of buccal cavity and pharynx	—	—	—	—	—	—	—	—	—	—	—	—
A	45 150	Malignant neoplasm of œsophagus	—	—	—	—	—	—	—	1	—	1	—	1
A	46 151	Malignant neoplasm of stomach	1	—	—	—	1	—	2	2	1	—	3	2
A	47 152, 153	Malignant neoplasm of intestine, except rectum	—	—	—	—	—	—	—	—	—	—	—	—
A	48 154	Malignant neoplasm of rectum	1	—	—	—	1	—	1	4	—	—	1	4
A	49 161	Malignant neoplasm of larynx	—	—	—	—	—	—	—	—	—	—	—	—
A	50 162, 163	Malignant neoplasm of trachea, and of bronchus and lung	—	—	—	—	—	—	—	—	—	—	—	—
A	51 170	Malignant neoplasm of breast	—	—	—	—	—	—	—	4	—	—	—	4
A	52 171	Malignant neoplasm of cervix uteri	—	—	—	—	—	—	—	1	—	—	—	2
		Carried forward	117	32	2	—	222	92	1,586	1,178	119	68	38,153	23,260

APPENDIX I—*continued.*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955

Inter-mediate List No.	*Detailed List No.*	*DISEASES* Cause Groups	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		Brought forward	117	32	2	—	222	92	1,586	1,178	119	68	38,153	23,260
	53	172–174 Malignant neoplasm of other and unspecified parts of uterus	—	—	—	—	—	2	—	12	—	1	—	25
A			—	—	—	—	—	—	1	—	—	—	1	—
A	54	177 Malignant neoplasm of prostate	—	—	—	—	—	—	—	1	—	—	—	2
A	55	190, 191 Malignant neoplasm of skin	1	—	—	—	2	—	—	1	—	—	—	—
A	56	196, 197 Malignant neoplasm of bone and connective tissue	—	—	—	—	—	—	1	—	—	—	1	—
A	57	155-160, 164, 165, 175, 176, 178-181, 192-195, 198-199 Malignant neoplasm of all other and unspecified sites	1	—	—	—	1	—	11	11	5	1	29	27
A	58	204 Leukaemia and aleukaemia	—	—	—	—	—	—	—	—	—	—	—	—
A	59	200-203 Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system ..	—	—	—	—	—	—	1	—	—	—	3	—
A	60	210-239 Benign neoplasms and neoplasms of unspecified nature	1	—	—	—	4	—	15	26	—	—	38	29
A	61	250, 251 Nontoxic goitre	—	—	—	—	—	—	—	—	—	—	4	7
A	62	252 Thyrotoxocosis with or without goitre ..	—	—	—	—	—	—	—	—	—	—	—	1
A	63	260 Diabetes mellitus	1	—	—	—	2	—	17	6	2	1	38	20
	64(*a*)	280 Beriberi	—	—	—	—	—	—	4	5	1	1	21	5
	(*b*)	281 Pellagra	—	—	—	—	—	—	—	—	—	—	—	—
	(*c*)	282 Scurvy	—	—	—	—	—	—	—	—	—	—	1	3
		Carried forward ..	121	32	2	—	231	94	1,636	1,239	127	72	38,289	23,379

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955

Intermediate List No.	*Detailed List No.*	*DISEASES* Cause Groups	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		Brought forward	121	32	2	—	231	94	1,636	1,239	127	72	38,289	23,379
	(*d*) 283–286	Other deficiency states	—	2	—	—	4	4	64	86	6	15	589	467
A	65(*a*) 290	Pernicious and other hyperchromic anaemias	—	—	—	—	—	—	6	5	1	1	59	52
	(*b*) 291	Iron deficiency anaemias (hypochromic) ..	—	—	—	—	—	4	28	39	5	4	122	87
	(*c*) 292 293	Other specified and unspecified anaemias ..	1	—	—	—	3	1	69	89	11	17	1,034	965
A	66(*a*) 241	Asthma	—	1	—	—	1	4	12	8	1	1	164	85
	(*b*) 240 242–245, 253, 254, 270–277, 287–289, 294–299.	All other allergic disorders, endocrine, metabolic and blood disease	3	4	—	—	8	17	3	6	—	—	33	56
A	67 300–309	Psychoses	4	—	—	—	5	—	3	—	—	—	3	—
A	68 310–324, 326	Psychoneuroses and disorders of personality	7	9	—	—	11	19	5	3	—	—	15	9
A	69 325	Mental deficiency	1	—	—	—	1	—	2	5	1	—	4	5
A	70 330–334	Vascular lesions affecting central nervous system	1	—	—	—	1	—	3	2	1	—	4	2
A	71 340	Non meningococcal meningitis	—	1	—	—	—	1	11	8	—	2	11	8
A	72 345	Multiple sclerosis	1	—	—	—	1	—	1	1	1	—	24	19
A	73 353	Epilepsy	—	—	—	—	—	1	17	3	2	1	43	19
A	74 370–379	Inflammatory diseases of eye	4	1	—	—	14	9	28	9	—	—	1,018	474
A	75 385	Cataract	—	—	—	—	—	—	1	—	—	—	24	29
A	76 387	Glaucoma	—	—	—	—	—	—	—	—	—	—	15	3
A	77(*a*) 390	Otitis externa	6	—	—	—	26	4	1	1	—	—	169	113
		Carried forward ..	149	50	2	—	306	158	1,890	1,504	156	113	41,620	25,772

APPENDIX I—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

Intermediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
		Brought forward	149	50	2	—	306	158	1,890	1,504	156	113	41,620	25,772
A	77(*b*) 391–393	Otitis media and mastoiditis	1	1	—	—	11	4	3	3	—	—	330	203
	(*c*) 394	Other inflammatory diseases of ear ..	—	—	—	—	33	13	2	—	1	—	409	276
A	78 (*a*) 380–384, 386, 388, 389	All other diseases and conditions of eye ..	—	1	—	—	7	6	23	9	—	—	637	341
	(*b*) 341, 344, 350–352, 354–357, 360–369, 395–398	All other diseases of the nervous system and sense organs	—	—	—	—	6	3	39	24	1	2	587	371
A	79 400–402	Rheumatic fever	—	—	—	—	—	—	4	1	—	—	23	17
A	80 410–416	Chronic rheumatic heart disease ..	—	—	—	—	—	—	3	5	—	—	19	18
A	81 420–422	Arteriosclerotic and degenerative heart disease	2	—	—	—	2	—	14	9	3	3	20	14
A	82 430–434	Other diseases of heart	—	1	—	—	1	1	71	53	13	9	402	311
A	83 440–443	Hypertension with heart disease ..	2	—	—	—	3	—	13	6	5	4	21	10
A	84 444–447	Hypertension without mention of heart ..	1	3	—	—	4	5	20	18	3	—	55	38
A	85 450–456	Diseases of arteries	1	—	—	—	2	—	4	5	2	1	2	5
A	86 460–468	Other diseases of circulatory system ..	4	—	—	—	7	—	19	4	4	1	370	131
A	87 470–475	Acute upper respiratory infections ..	22	6	—	—	131	56	35	34	1	2	1,605	946
A	88 480–483	Influenza	—	—	—	—	—	—	—	—	—	—	14	18
A	89 490	Lobar Pneumonia	4	1	—	—	4	1	221	84	20	14	237	104
A	90 491	Bronchopneumonia	4	2	1	—	4	2	127	115	24	30	179	136
A	91 492, 493	Primary atypical, other and unspecified pneumonia	3	—	—	—	3	—	32	10	3	1	57	33
		Carried forward	193	65	3	—	524	249	2,520	1,884	236	180	46,587	28,744

APPENDIX I—*continued*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

Inter-mediate List No.	*Detailed List No.*	*DISEASES* Cause Groups	*EXPATRIATES* In-Patients M.	In-Patients F.	Deaths M.	Deaths F.	Out-Patients M.	Out-Patients F.	*NON-EXPATRIATES* In-Patients M.	In-Patients F.	Deaths M.	Deaths F.	Out-Patients M.	Out-Patients F.
		Brought forward . .	193	65	3	—	524	249	2,520	1,884	236	180	46,587	28,744
A 92	500	Acute bronchitis	2	3	—	—	27	17	68	79	4	4	479	423
A 93	501, 502	Bronchitis, chronic and unqualified . .	2	2	—	—	3	4	66	44	4	—	2,422	1,536
A 94	510	Hypertrophy of tonsils and adenoids . .	1	1	—	—	2	1	3	3	—	—	275	196
A 95	518, 521	Empyema and abscess of lung . .	—	—	—	—	—	—	3	—	—	—	7	—
A 96	519	Pleurisy	4	1	—	—	5	1	9	4	1	—	23	11
A 97	(*a*)523	Pneumoconiosis	—	—	—	—	—	—	—	—	—	—	—	—
	(*b*)511–517, 520–522, 524–527	All other respiratory diseases . .	2	—	—	—	2	1	18	15	3	—	1,998	1,286
A 98	(*a*)530	Dental caries	—	—	—	—	1	—	1	6	—	—	1,086	727
	(*b*)531–535	All other diseases of teeth and supporting structures	2	2	—	—	6	5	5	2	—	1	408	253
A 99	540	Ulcer of stomach	1	—	—	—	2	—	6	5	—	—	34	17
A 100	541	Ulcer of duodenum	7	—	—	—	16	2	5	—	1	—	15	3
A 101	543	Gastritis and duodenitis	8	2	—	—	16	7	7	1	2	—	106	65
A 102	550–553	Appendicitis	12	7	—	—	12	7	29	10	1	—	35	14
A 103	560, 561, 570	Intestinal obstruction and hernia . .	16	1	—	—	18	1	524	15	29	1	1,391	33
A 104	(*a*)571.0	Gastro-enteritis and colitis between 4 weeks and 2 years	3	1	—	—	3	1	26	29	5	6	210	180
	(*b*) 571.1	Gastro-enteritis and colitis, ages 2 years and over	11	2	—	—	18	10	72	34	8	5	578	466
	(*c*) 572	Chronic enteritis and ulcerative colitis	—	—	—	—	—	—	—	—	—	—	27	7
A 105	581	Cirrhosis of liver	2	—	—	—	2	—	22	11	4	3	43	17
A 106	584, 585	Cholelithiasis and cholecystitis . .	3	—	—	—	3	1	2	—	—	—	2	—
A 107	536–539, 542, 544, 545, 573–580, 582, 583, 586, 587	Other diseases of digestive system . .	19	6	1	—	75	29	93	84	4	2	4,069	3,107
		Carried forward . .	288	93	4	—	735	336	3,479	2,226	302	202	59,795	37,085

APPENDIX I—*continued.*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

Intermediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
		Brought forward	288	93	4	—	735	336	3,479	2,226	302	202	59,795	37,085
A 108	590	Acute nephritis	—	—	—	—	—	1	4	8	—	—	26	19
A 109	591–594	Chronic, other and unspecified nephritis ..	—	—	—	—	—	—	13	8	1	2	39	33
A 110	600	Infections of kidney	2	3	—	—	3	9	13	46	—	1	17	31
A 111	602, 604	Calculi of urinary system	1	—	—	—	3	—	2	—	—	—	2	—
A 112	610	Hyperplasia of prostate	1	—	—	—	1	—	—	—	—	—	1	—
A 113	620, 621	Diseases of breast	—	2	—	—	—	2	—	38	—	—	—	184
A 114(*a*)	613	Hydrocele	1	—	—	—	1	—	98	2	—	—	381	2
(*b*)	634	Disorders of menstruation	—	3	—	—	—	7	—	96	—	—	—	2,650
(*c*)	601, 603, 605–609, 611, 612, 614–617, 622–633, 635–637	All other diseases of the genito-urinary system	10	14	—	—	23	30	107	112	10	2	1,646	2,269
A 115	640, 641, 681, 682, 684	Sepsis of pregnancy, childbirth and the puerperum	—	—	—	—	—	—	—	26	—	1	—	28
A 116	642, 652, 685, 686	Toxaemias of pregnancy and the puerperium	—	8	—	—	—	10	—	93	—	6	—	14
A 117	643, 644, 670–672	Haemorrhage of pregnancy and childbirth ..	—	—	—	—	—	—	—	57	—	1	—	8
A 118	650	Abortion without mention of sepsis or toxaemia	—	16	—	—	—	17	—	182	—	4	—	252
		Carried forward	303	139	4	—	766	412	3,716	2,894	313	219	61,907	42,575

APPENDIX I—*continued.*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

Intermediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
		Brought forward	303	139	4	—	766	412	3,716	2,894	313	219	61,907	42,575
A 119	651	Abortion with sepsis	—	—	—	—	—	—	—	48	—	1	—	71
A 120(*a*)	645–649, 673–680 683, 687–689	Other complications of pregnancy, childbirth and the puerperium	—	4	—	—	—	9	—	604	—	24	—	205
(*b*)	660	Delivery without complications	—	2	—	—	—	2	—	2,597	—	—	—	955
A 121	690–698	Infections of skin and subcutaneous tissue ..	16	4	—	—	100	31	122	187	2	1	1,507	1,054
A 122	720–725	Arthritis and spondylitis	5	2	—	—	19	5	54	23	3	—	1,104	460
A 123	726–727	Muscular rheumatism and rheumatism unspecified	3	3	—	—	28	13	50	22	—	—	3,393	1,576
A 124	730	Osteomyelitis and periostitis	1	—	—	—	1	—	25	9	—	—	448	89
A 125	737,745–749	Ankylosis and acquired musculoskeletal deformitis	—	—	—	—	2	—	1	1	—	—	41	31
A 126(*a*)	715	Chronic ulcer of skin (including tropical ulcer)	4	—	—	—	10	1	135	72	—	1	7,616	3,409
(*b*)	700–714,716	All other diseases of skin	11	3	—	—	71	45	63	33	—	—	2,382	1,282
(*c*)	731-736, 738–744	All other diseases of musculoskeletal system ..	—	—	—	—	2	1	4	4	—	—	354	162
A 127	751	Spina bifida and meningocele	—	—	—	—	—	—	—	—	—	—	—	—
A 128	754	Congenital malformations of circulatory system	—	—	—	—	—	—	—	—	—	—	3	4
A 129	750,752,753, 755–759	All other congenital malformations ..	—	—	—	—	—	—	3	4	—	1	3	4
		Carried forward	343	157	4	—	999	519	4,173	6,498	318	247	78,758	51,877

APPENDIX I—*continued.*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

Intermediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
		Brought forward	343	157	4	—	999	519	4,173	6,498	318	247	78,758	51,877
A 130	760, 761	Birth injuries	—	—	—	—	—	—	—	3	—	—	—	5
A 131	762	Post-natal asphyxia and atelectasis ..	—	—	—	—	—	—	1	2	—	—	1	2
A 132(*a*)	764	Diarrhoea of newborn (under 4 weeks) ..	—	—	—	—	—	—	9	9	2	—	30	38
(*b*)	765	Ophthalmia neonatorum	—	—	—	—	—	—	3	3	—	1	7	19
(*c*)	763,766–768	Other infections of newborn	—	—	—	—	—	—	—	1	—	1	1	4
A 133	770	Haemolytic disease of newborn	—	—	—	—	—	—	—	—	—	—	—	—
A 134	769,771,772	All other defined diseases of early infancy	1	—	1	—	1	1	21	12	1	2	30	17
A 135	773, 776	Ill-defined diseases peculiar to early infancy and immaturity, unqualified	2	—	—	—	2	4	—	2	—	—	3	7
A 136	794	Senility without mention of psychosis ..	—	—	—	—	—	—	7	—	2	—	15	1
A 137(*a*)	788.8	Pyrexia of unknown origin	11	4	—	—	13	4	42	47	1	3	821	872
(*b*)	793	Observation, without need for further medical care	21	3	—	—	41	9	54	205	—	—	179	118
(*c*)	780–787, 788.1–788.7, 788.9, 789–792, 795	All other ill-defined causes of morbidity ..	56	20	—	—	120	37	668	426	46	7	4,765	2,499
		Carried forward	434	184	5	—	1,176	574	4,978	7,208	370	261	84,610	55,459

APPENDIX I—*continued.*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITALS AT THE END OF 1955)

"E" CODE.—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENC (EXTERNAL CAUSE)

Intermediate List No.	*Detailed List No.*	*DISEASES*	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		CAUSE GROUPS												
		Brought forward ..	434	184	5	—	1,176	574	4,978	7,208	370	261	84,610	55,459
AE 138	E810–E835	Motor vehicle accidents	10	2	—	—	16	4	62	25	7	5	2,066	1,133
AE 139	E800–E802, E840–E866	Other transport accidents	—	—	—	—	8	5	56	21	1	—	474	234
AE 140	E870–E895	Accidental poisoning	1	1	—	1	1	1	10	6	—	—	11	8
AE 141	E900–E904	Accidental falls	12	2	—	—	58	27	244	45	6	1	7,049	2,257
AE 142	E912	Accident caused by machinery ..	2	1	—	—	4	1	33	1	—	—	1,779	57
AE 143	E916	Accident caused by fire and explosion of combustible material	2	—	1	—	4	—	28	14	—	—	227	102
AE 144	E917, E918	Accident caused by hot substance, corrosive liquid, steam and radiation	1	—	—	—	3	3	43	8	2	1	305	192
AE 145	E919	Accident caused by firearm	—	—	—	—	—	—	45	7	2	—	126	16
		Carried forward	462	190	6	1	1,270	615	5,499	7,335	388	268	96,647	59,458

APPENDIX I—*continued.*

RETURN OF PATIENTS TREATED AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

"E" CODE—*contd.*—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSE)—*continued.*

Intermediate List No.	*Detailed List No.*	*DISEASES* Cause Groups	*EXPATRIATES*						*NON-EXPATRIATES*					
			In-Patients		*Deaths*		*Out-Patients*		*In-Patients*		*Deaths*		*Out-Patients*	
			M.	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
		Brought forward	462	190	6	1	1,270	615	5,499	7,335	388	268	96,647	59,458
AE 146	E929	Accidental drowning and submersion ..		—	—	—	—	—	1	1	—	—	2	1
AE 147(*a*)	E920	Foreign body entering eye and adnexa ..	—	—	—	—	2	—	2	—	—	—	225	146
(*b*)	E923	Foreign body entering other orifice ..	2	—	—	—	2	3	2	1	—	1	125	54
(*c*)	E927	Accidents caused by bites and stings of venemous animals and insects ..	—	—	—	—	8	4	24	9	—	—	351	198
(*d*)	E928	Other accidents caused by animals ..	—	—	—	—	—	—	3	3	—	—	227	174
(*e*)	E910, E911, E913–E915, E921, E922, E924–E926, E930–E965	All other accidental causes	7	—	—	—	12	2	142	38	4	—	2,719	784
AE 148	E970–E979	Suicide and self-inflicted injury ..	—	—	—	—	—	—	—	—	—	—	—	—
AE 149	E980–E985	Homicide and injury purposely inflicted but other persons (not in war) ..	—	—	—	—	1	—	6	—	1	—	24	7
AE 150	E990–E999	Injury resulting from operations of war	—	—	—	—	—	—	—	—	—	—	—	—
		Total	471	190	6	1	1,295	624	5,679	7,387	393	269	100,320	60,822

APPENDIX I—*continued*

RETURN OF PATIENTS AT GOVERNMENT HOSPITALS (EXCLUDING PATIENTS REMAINING IN HOSPITAL AT THE END OF 1955)

"N" CODE—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (NATURE OF INJURY)

Intermediate List No.	*Detailed List No.*	*DISEASES* Cause Groups	*EXPATRIATES* In-Patients M.	In-Patients F.	Deaths M.	Deaths F.	Out-Patients M.	Out-Patients F.	*NON-EXPATRIATES* In-Patients M.	In-Patients F.	Deaths M.	Deaths F.	Out-Patients M.	Out-Patients F.
AN 138	N800–N804	Fracture of skull	2	—	—	—	2	—	11	5	3	1	11	5
AN 139	N805–N809	Fracture of spine and trunk	2	—	—	—	4	—	16	7	3	4	24	12
AN 140	N810–N829	Fracture of limbs	7	1	—	—	11	3	144	25	1	1	487	180
AN 141	N830–N839	Dislocation without fracture	2	—	—	—	3	—	52	14	1	—	1,034	217
AN 142	N840–N848	Sprains and strains of joints and adjacent muscles	1	—	—	—	18	10	29	8	1	—	2,054	572
AN 143	N–850–N856	Head injury (excluding fracture)	3	2	—	—	4	4	23	8	2	—	421	141
AN 144	N860–N869	Internal injury of chest, abdomen, and pelvis	—	—	—	—	—	—	11	1	4	—	50	27
AN 145	N–870–N908	Laceration and open wounds	2	—	—	—	31	12	216	40	2	—	5,043	2,077
AN 146	N910–N929	Superficial injury, contusion and crushing with intact skin surface	7	2	—	—	16	9	40	8	1	—	4,282	1,271
AN 147	N930–N936	Effects of foreign body entering through orifice	4	—	—	—	6	3	5	1	—	1	225	121
AN 148	N940–N949	Burns	3	—	1	—	7	3	75	29	2	1	529	293
AN 149	N960–N979	Effects of poisons	1	1	—	1	4	3	9	6	—	—	44	52
AN 150	N950–N959 N980–N999	All other and unspecified effects of external causes	3	—	—	—	13	3	70	27	3	—	1,506	395
		Total	37	6	1	1	119	50	701	179	23	8	15,710	5,363

APPENEIX II

MISSION AND MINING HOSPITALS AND DISPENSARIES BED STRENGTH

Name and Mission	*Place*	*NUMBER AND CATEGORY OF BEDS*					*Remarks*
		General	*Obstetrical*	*Tuber-culosis*	*Infectious*	*Mental*	
MISSION HOSPITALS							
American Wesleyan	Kamakwie	31	3	1	1	—	plus 4 cots
Evangelica United Brethren in Christ	Rotifunk	26	11	—	—	—	plus 7 cots
	Tiama	—	12	—	—	—	
Methodist	Segbwema	68	20	11	3	—	plus 6 cots
Roman Catholic	Serabu	40	4	—	—	—	plus 6 cots
MISSION DISPENSARIES (NOT UNDER THE CARE OF A RESIDENT MEDICAL OFFICER)							
American Wesleyan	Kukuna via Rokupr	2	1	—	—	—	
	Bendembu via Makeni	—	1	—	—	—	
	Massumbo via Makeni	—	—	—	—	—	—
	Kamabai via Makeni	—	—	—	—	—	
	Bafodia via Kabala	—	—	—	—	—	
United Brethren American	Mattru Jong	5	5	—	—	—	
	Gbangbaia (visited monthly)	—	—	—	—	—	
Missionary Church Association	Yifin (Niemi Chiefdom)	6	2	—	—	—	—
	Sambaia Bendugu	—	—	—	—	—	
	Mayoso	—	2	—	—	—	
Methodist	Bunumbu	4	—	—	—	—	
	Jojoima	2	—	—	—	—	
Evangelical United Brethren in Christ	Jaiama	1	9	—	—	—	
MINING HOSPITALS							
Sierra Leone Selection Trust	Yengema	38	6	—	6	—	
Sierra Leone Development Company	Marampa	27	3	—	6	—	plus 4 cots
MINING DISPENSARY (NOT UNDER THE CARE OF A RESIDENT MEDICAL OFFICER)							
Sierra Leone Development Company	Pepel	3	—	—	—	—	
	TOTAL	253	79	12	16	—	† 27 cots