Annual report of the Medical Department / Tanganyika Territory.

TANGANYIKA

Annual Report
of the
Medical Department
1957

Volume I

1958
PRINTED BY THE GOVERNMENT PRINTER
DAR ES SALAAM
Price: Shs. 4/50

CONTENTS

PART ONE

PART THREE—CURATIVE SERVICES

PART FOUR—ANCILLARY AND RELATED SERVICES

TANGANYIKA

Annual Report of the Medical Department for the year 1957

PART ONE

I.—GENERAL REVIEW

As in previous years this Annual Report has to be written immediately after the close of the year and it is thus impracticable to include in it detailed statistical information. Such information, which comes from the eight provinces in the territory, takes a considerable time to collate and analyse and thus cannot be available until well on in 1958. When it is available it will be published as Volume II of the Annual Report. It will be appreciated that such figures as are quoted in the present report are subject to confirmation or correction but they may be taken as generally correct.

2. The Medical Department is administered by the Director of Medical Services from his Headquarters in Dar es Salaam where he has to assist him, a Deputy Director and two Assistant Directors. Each of the eight provinces in the territory is under the medical charge of a Provincial Medical Officer who deals directly with Departmental Headquarters and who has very substantial powers delegated to him from the central directorate. Although any officer may fill the role of Provincial Medical Officer, these appointments are generally held by Senior Medical Officers, except that the post in the important and populous Lake Province is held by an Assistant Director of Medical Services. This administrative organisation has, during the year, proved itself to be satisfactory. It has worked smoothly, and delays in reaching decisions have been minimal.

3. So far as the territory's curative services are concerned, there is an agreed division of responsibility between Central and Local Government which was adhered to during the year. The Medical Department was responsible for the hospital services and the Native Authorities in their respective areas were responsible for the dispensary services. Supervision of the latter was exercised by the respective District Medical Officers and Provincial Medical Officers.

4. During the year much attention was devoted to planning. The "Plan for the Development of Medical Services in Tanganyika with special reference to the period 1956/61" which was approved at the session of the Legislative Council in December 1956 to be implemented as and when the necessary funds became available, was reviewed during the year. In last year's report reference was made to the direction of His Excellency the Governor for the setting up of an *ad hoc* Committee of the Legislative Council to examine the medical and other government plans for development with a view to assessing priorities for their implementation in the light of financial resources likely to be available within the planning period. This committee examined the Medical 5-Year Plan, re-costed in the light of salary changes and rising capital costs. The committee recommended the full implementation of the plan but it did not consider it practicable for all that had originally been visualised

as being achieved in the 5-year planning period to be carried out in that time. It therefore recommended the spreading of the plan over a somewhat longer period than originally visualised, perhaps to six or seven years. So matters rested until a further meeting of the *ad hoc* Committee was held in December, 1957, to consider a report from a sub-committee which had been examining the territory's finances so far as they could be foreseen up to the year 1961. The sub-committee held the view that the estimated revenue would be insufficient to cover the estimated increase in recurrent expenditure during this period. There must therefore, be a curtailment of expenditure, and the sub-committee considered that whilst all Government Departments should play their part, it was in the social services that the trend towards rapid increase in annual recurrent costs must be most severely restrained. These recommendations were accepted by the *ad hoc* Committee, which in turn recommended them to Government. It was against this background that, at the end of the year under review, estimating for the financial year 1958/59 was undertaken. The effect will be, or so it would appear, that although there will continue to be reasonable development of medical services, the rate of development will be somewhat slower than it has been over the past six or seven years.

5. The capital programme was substantial and reasonable progress was made, although planning delays with regard to the X-ray and theatre block at the Princess Margaret Hospital, Dar es Salaam, led to work on this essential unit being deferred, with the result that one cannot anticipate the hospital being a fully functioning institution until late in 1959.

6. At Newala in the Southern Province a new 60-bed Government hospital was opened by His Excellency the Governor on 13th August. Until its completion the districts of Newala and Masasi had been served entirely by mission hospitals but local demands for medical facilities made the building of a Government hospital necessary, and it will undoubtedly be a great asset to Newala District in particular.

7. The Native Authorities, having accepted with alacrity the need to develop health centres in their areas, actively pursued their plans to this end and there is every prospect that the first ten health centres of the forty planned to be established by 1961 will be functioning by the middle of 1958. In certain instances existing dispensaries are being added to, to provide for the wider functions of the health centre, but in other cases Native Authorities are building afresh and creating purpose designed units.

8. The dispensary services of the Native Authorities continued steadily to advance on the lines of previous years. Many new dispensaries were opened, although the Department endeavoured to keep expansion within manageable limits in view of its responsibility for supervision of this service and of the limited personnel available for the purpose.

9. Two 60-bed hospitals were completed by the end of the year at Kibondo and Geita and will be opened and fully functioning early in 1958. At Maswa a similar hospital was in course of construction but was not finished by the end of the year owing to the financial failure of the contractor. Work on the new Sumbawanga hospital continued, although with interruptions, and the hospital was partly occupied by the end of the year. At a number of other existing hospitals additions and improvements were carried out. At Lindi, a new maternity ward was completed and brought into use, while at Kahama two new wards were nearing completion at the year's end. At Mbeya a new out-patient and administration block is under construction and at Tabora a new services block. At Chazi leprosarium and at Mirembe mental hospital additional wards and administrative buildings were provided. At Tanga the new Galanos block which will have 150 beds for women and children was practically ready by the end of the year and will be brought into use early in 1958. At the Princess Margaret Training Centre, Dar es Salaam, four more hostels with accommodation for over 400 students were completed, whilst in the high density areas of Dar es Salaam, a third out-patient dispensary of the new and effective design which has already proved successful at Ilala and Mnazi Moja, was completed but was not in use when the year closed.

10. Reference was made in the previous report to re-organisation of the central medical store in Dar es Salaam. This continued during the year with such good effect that although the volume of work increased considerably efficient service was provided to all indenting units. All Provincial Medical Officers in their Annual Reports commented on the vastly improved service received from the central store and on the reduction to a minimum of delays between despatch of indents and reception of supplies.

11. Much attention was devoted to training of local staff and satisfactory progress was made on the lines of the Five Year Development Plan. The male nurses school at Kongwa was transferred to Dar es Salaam, and as the year ended, arrangements were being made for the nurses school at Mweka to be closed and incorporated in the Princess Margaret Training Centre at the beginning of 1958.

12. The intake of medical assistant trainees was increased and there was also expansion in the training of village midwives. There are now four Government centres in the territory training this latter type of personnel. Plans were advanced at the end of the year for the erection at Moshi of a second health nurses training school similar to the existing one at Tukuyu. This new school which will lead to a doubling of the output of health nurses should be ready towards the end of 1958. The training of women medical assistants proceeded and four of the original five students completed the first year of the course. At the end of the year, five further students had been enrolled.

13. Throughout the territory generally the year was one of good rains, and food supplies were adequate. Cases of malnutrition not resulting from food shortage continued, however, to be encountered frequently. Their origin lay in ignorance, poverty and other social factors.

14. The outstanding epidemic incident of the year was the visitation of Asian influenza. This pandemic entered the territory in August by the coastal seaports of Dar es Salaam and Tanga and rapidly swept along the lines of communication to the most remote parts of the territory. It was fortunate that in general it maintained the mild character it had demonstrated in other parts of the world, but in some of the inland mountainous districts the mortality experience was not inconsiderable, and in one district it was noted that it caused a considerable increase in the number of abortions and miscarriages.

15. Poliomyelitis occurred sporadically in many parts of the territory, but there was no major epidemic of this infection. During the year supplies of polio vaccine became available and by the end of the year some 7,000 persons in the most vulnerable groups had been protected.

16. Smallpox, too, was of common occurrence. The majority of the cases reported were variola minor but there were also several outbreaks of the major infection with mortality.

17. There was a further substantial decline in the number of cases of sleeping sickness reported but the disease was recorded in new areas and vigilance was maintained.

18. During the year a great deal of attention was paid to tuberculosis which is without doubt one of the major and most pressing public health problems in the territory. While some areas remain relatively free from this infection reports indicate that in other districts the incidence is steadily increasing. A not inconsiderable number of additional beds were made available for the treatment of this disease at Mbulu, Nachingwea, Korogwe and Muhesa. In the Southern Province a tuberculosis control scheme covering the eastern part of the province was initiated. It is a joint effort by Government and mission hospital authorities and is under the general direction of a tuberculosis officer based on Nachingwea. In the latter part of the year, over a period of four months, a tuberculosis survey team of the World Health Organisation worked in this same part of the Southern Province. The detailed results of this survey have not yet been received, but preliminary figures indicate an incidence in the group sample of active tuberculosis of the order of one per cent.

19. The Kibongoto sanatorium, the Infectious Diseases Hospital, Dar es Salaam, and the Pathological Laboratory in Dar es Salaam continued throughout the year to participate in the tuberculosis therapy trials organised throughout East Africa by the Medical Research Council.

20. A census of Tanganyika population was carried out during the year. In February the non-Africans were enumerated and the African census was carried out in August. The non-African count shows a substantial increase over previous counts. The figures for the African census were not available by the end of the year, but it is anticipated that a not inconsiderable population increase has also taken place in this group.

21. Early in the year Tanganyika was the venue of important medical meetings. The E.A. Medical Scientific Advisory Committee met in Dar es Salaam in January and was followed immediately by a Scientific Conference, the subject of which was tuberculosis and leprosy. This Conference attracted a large number of distinguished visitors not only from adjoining territories but also from the United Kingdom. It was opened by His Excellency the Governor and was presided over by Sir Harold Himsworth of the Medical Research Council in London. In February, the East African Council for Medical Research met in Arusha to consider the recommendations of the Scientific Advisory Committee.

22. As in previous years, towards the end of October the annual departmental conferences of Provincial Medical Officers and Medical Officers were held in Dar es Salaam. These conferences were again a success and they have become a most popular feature of the departmental year.

23. No major legislation affecting the public health was enacted during 1957. The draft Public Health Bill was, however, still in evidence and was circulated to local authorities for comments. These comments are now being studied and it is hoped that the Bill will go forward to the Legislative Council in 1958.

II.—STAFF

24. As is perhaps to be expected in any expanding service, staffing difficulties were very real both with regard to recruitment from overseas and availability of local personnel. Although local training establishments have steadily expanded in recent years and continued to do so during 1957, the output of these schools still falls far short of the territory's needs and as the flow of recruits from the United Kingdom to the more senior positions in the Department was insufficient to meet demands, there were times when it was difficult to maintain the staffing of existing units at a satisfactory level. The number of medical assistants available was inadequate indeed, and there are few units that were not working below strength in this important cadre. The shortage was so acute that the third out-patient clinic in Dar es Salaam at Magomeni, which was completed in October 1957, could not be brought into use by the end of the year. In fact, it will not be possible to open this unit until the end of January 1958, when the new output of the medical assistants training school will be available.

25. Although the output of trained nurses is steadily increasing it will be necessary for many years to continue to employ at all hospitals, to carry out some of the nursing duties, nursing orderlies, both men and women, who have had no formal training. Until nursing orderlies are as a class completely replaced by trained nursing personnel, standards of nursing in the hospital services will remain less than satisfactory in spite of the devoted supervision of the nursing staff recruited from overseas.

26. At the commencement of the year satisfactory numbers of overseas nursing sisters were available and a steady flow of recruits continued to reach the territory until August. These were sufficient to counteract the continuing wastage in this cadre, but from August until the end of the year no additional nursing sister recruits arrived, and as wastage continued at the normal pace a difficult situation indeed resulted at the end of the year. At that time there were some fifty vacancies in the permanent establishment of nursing sisters. A number of these vacancies were temporarily filled by married women but employment of these married sisters, necessary though it is in present circumstances, does not give any sense of security and does not lend itself to the building up of an efficient local nursing service. It is thus considered very necessary indeed that for some years to come sufficient recruits should be obtained from overseas, not only to counteract inevitable wastage but to meet the demands of the expanding hospital services.

27. Throughout the year also the position with regard to medical practitioners caused difficulty, and the Department worked with virtually no margin to meet periodic crises arising from illness, resignation and so on. The year closed on a somewhat brighter note in this regard, but the margin remained slight and certainly insufficient to meet the increasing demands arising from the opening of new units and the expansion of existing ones.

28. Shortage of dental officers was acute leading to serious curtailment of services. At the end of the year in this small cadre there were two vacancies and with one officer on leave it was necessary for the dental surgery in Mbeya to be closed down and dental safaris to the Southern and Central Provinces could not be carried out.

29. The following table indicates the more important losses and gains in senior staff during the year:—

1957	New Appointments	Retirements, etc.
Medical Officers	5	4
Dental Surgeons	1	1
Assistant Surgeons	–	–
Medical Officers (E.A.)	2	–
Senior Sub-Assistant Surgeons	–	2
Sub-Assistant Surgeons	–	–
Nursing Sisters	12	21
Health Visitors	1	2
Charge Nurses (Mental)	1	1
Health Inspectors	–	2

PART TWO—PUBLIC HEALTH

III.—COMMUNICABLE DISEASES

(A) Direct Infections

Smallpox (*Variola*)

Reported Incidence 1953-1957

	1953	1954	1955	1956	1957
Cases	1,200	928	542	605	856
Deaths	54	28	15	21	38
Case Mortality per cent	4·5	3·0	2·8	3·47	4·4

30. Cases of smallpox were recorded in all provinces of the territory, but in only Central and Western Provinces was the major infection encountered. In the Central Province the situation was to some extent complicated by the presence of considerable numbers of cases of variola minor but it was estimated that there were some 75 cases of variola major and 12 deaths. In the Ufipa District of the Western Province there was a similar experience of major smallpox, with 30 cases and 12 deaths. In this province too, there was a substantial number of cases of alastrim, but two smallpox deaths occurred in Tabora and one in Kigoma, and it is thus possible that the major infection had spread to these towns from the Ufipa District.

31. In all areas where smallpox was recorded, whether variola major or alastrim, extensive vaccination was undertaken. In none of the towns was the disease of any real consequence and none of the sea ports were infected during the year.

Poliomyelitis

Reported Incidence 1953-1957

	1953	1954	1955	1956	1957
Cases	153	170	123	466	386
Deaths	24	12	3	34	11
Case Mortality per cent	15·6	7·0	2·4	7·29	2·8

32. The focus of infection in the Western Province responsible for the severe epidemic in 1956 did not make itself felt during 1957 and only a few sporadic cases occurred in the area. In the Bukoba District also, which had been severely affected during the previous year, only sporadic cases occurred. It was only in the Eastern Province that there was a significantly increased incidence of this infection, there being 71 cases with two deaths as compared with 12 cases and no deaths in the previous year. The majority of these cases occurred in the Ulanga District where the infection broke out at the district headquarters, Mahenge, in May and spread northwards throughout the district during the succeeding four months. The number of cases involved was 43, but there is reason to believe that about 20 persons died of the infection without it being diagnosed. The remaining cases in the province were sporadic and occurred mainly in Morogoro, Kilosa and Bagamoyo.

33. In the Tanga Province towards the end of the year a number of cases of paralysis reported for treatment, and it is at least possible that in the early months of the year there was an outbreak of poliomyelitis in the Nguru mountains of the Handeni District, although no information suggestive of such an occurrence had been received. In this province as a whole there were 69 recorded cases and five deaths, but the cases all occurred sporadically.

34. During the year limited supplies of anti-polio vaccine were obtained, firstly from the Union of South Africa and subsequently from the United Kingdom. This vaccine was offered on payment to those age groups of all races considered to be most seriously at risk. Registration of persons in these age groups who desired vaccination was carried

out in all provinces and a total of some 7,000 persons had been protected by the end of the year. By that time supplies had become much easier and it will in 1958 be possible to provide the vaccine for all persons who are prepared to pay for it.

35. There is much still to be learned about the epidemiology of poliomyelitis and of its significance in the various racial groups exposed to infection in Tanganyika. Thus an application has been made to the World Health Organisation for an expert to visit the territory to carry out epidemiological investigations and to advise on the use of polio vaccine as a general public health measure. There is no doubt that the infection is endemic in the territory and it would appear that the immigrant races are at considerably greater risk than the adult indigenous population, but exact information on these questions is essential if a proper approach is to be made to this important problem.

Leprosy

36. During the year a great deal of attention was paid to leprosy and in a number of districts schemes for out-patient treatment were initiated or expanded. Increasing emphasis was placed on the organisation of these out-patient treatment schemes but the position of the leprosarium was not overlooked. It is necessary for any out-patient scheme if it is to be a success to be based upon an adequate leprosarium with facilities for the treatment as in-patients of infectious cases and those suffering from lepra reactions.

37. Throughout the territory there are 19 leprosaria. Of these five are maintained by Government and the remainder by Missions or by Native Authorities. The standard of treatment in them varies considerably and certain of them hardly deserve the title of leprosaria as they are, in fact, merely repositories for leprosy cases many of whom are burnt out. In certain other leprosaria the sites have become unsuitable due to soil erosion and lack of water. This was especially the case in the Central Province where during the year there was much discussion between representatives of Government and of two distinct Mission groups with the object of replacing certain unsatisfactory institutions with a first class central leoprosarium to serve the province as a whole and to be operated by a management board representing all the interests concerned. It was a matter for some regret that these negotiations failed because the missions concerned did not feel able to work together in this project. They have thus decided to proceed independently to construct two new and separate institutions.

38. In the Eastern Province there was considerable development at the Government leprosarium at Chazi. The institution was an unsatisfactory one occupying temporary buildings, but during the year good progress was made in the building of a permanent hospital. The administrative and out-patient block, two wards and an ulcer dressing room were completed and in use by the end of November, but it still was not possible during the year to post a resident medical officer to the institution, which continued to be administered by a BELRA worker and to be medically supervised from Morogoro. Although the new operating theatre has not yet been completed regular visits were paid at monthly intervals by a surgeon from Morogoro and a considerable amount of useful surgical treatment was given. In the Southern Province increasing emphasis was placed on out-patient treatment with encouragement of early discharge of patients from leprosaria. In this province three BELRA workers are available, two of whom are engaged in the supervision of the out-patient treatment organisation.

39. Probably the most effective leprosy organisation in the territory is that in the Rungwe District of the Southern Highlands Province. Here the government leprosarium at Makete with an average number of 725 resident patients formed the focal point of an extensive out-patient clinic organisation. The total number of persons treated in the institution during the year was 930, and the total number of persons attending the clinics was in the region of 1,300.

40. In the Western Province also there were satisfactory developments in this regard. The leprosarium at Sikonge operated by the Moravian Mission on behalf of a group of Native Authorities functioned very satisfactorily indeed and here too development of

out-patient treatment clinics proceeded. It is noteworthy that in the Tabora District especially, the Native Authority is now accepting responsibility for the out-patient treatment of leprosy at its general dispensaries.

41. There is nothing to suggest that there has been any increase in the incidence of this infection during the year although with the expansion of out-patient treatment facilities larger numbers of patients are coming under treatment. On the other hand it can equally be said that there is nothing to suggest that the efforts to control the disease have so far achieved any significant reduction in incidence, but it is to be hoped that such reduction will come as the out-patient treatment organisation is developed and made more effective.

Tuberculosis

42. As has already been mentioned considerable attention was paid during 1957 to tuberculosis which has come to be recognised as one of the territory's most important and formidable public health problems. Increasing awareness of these problems on the part of central and local government authorities has increased the desire for more and more facilities to deal with the disease. Within the limited resources available to the department not unsubstantial advance in this regard was possible, and specific provision of hospital accommodation for tuberculosis cases was increased in some existing units and provided at other centres. The only institution in the territory devoted solely to the treatment of tuberculosis is Kibongoto sanatorium, the bed strength of which at the end of the year was 326. Tuberculosis beds continued to be maintained also at:—

Kongwa hospital	60
Dar es Salaam (I.D.H.)	109
Tanga (I.D.H.)	47
Muheza hospital	39
Oldeani hospital	22

and in addition, during 1957, tuberculosis beds were also provided at the following centres:—

Mbulu hospital	38
Korogwe hospital	35
Nachingwea hospital	45

43. Particularly in the Northern and Tanga Provinces pressure on available tuberculosis beds was heavy indeed. In the Mbulu District, which may perhaps have the highest incidence of tuberculosis in the territory, very many more beds than those specifically allocated for tuberculosis in Mbulu and Oldeani hospitals were occupied for the greater part of the year by tuberculosis cases. This was the position also in Muheza and Korogwe hospitals which have to deal with the special problem of tuberculosis among imported labour working on the nearby sisal estates.

44. In the Southern Province there has been a growing awareness of the increasing incidence of tuberculosis over the past few years, and early in 1957 a plan was drawn up for a tuberculosis control scheme in the eastern part of the province which would utilise the hospital facilities of missions and government and would be under the direction of a government medical officer specially qualified in tuberculosis work. Mission co-operation in this scheme was readily obtained, and in August the tuberculosis officer was posted to Nachingwea which became the headquarters of the scheme. In the first instance his duties were to initiate the scheme and to co-ordinate treatment in the area concerned in order to make the best possible use of available facilities. Good progress was made by the end of the year, although staff difficulties prevented the tuberculosis officer devoting his full time to the task for which he was posted to the area. These staff difficulties are, however, only temporary, and it is hoped that it will be possible early in 1958 to relieve the tuberculosis officer of general duties in Nachingwea hospital and enable him to devote his full time and thought to the tuberculosis project.

45. In the western part of the Southern Province, in the Songea District, a new tuberculosis unit capable of dealing with some 60 patients was completed at the Benedictine hospital at Peramiho, but it had not been possible to bring it into use before the year closed. This

unit has a very powerful X-ray machine which was installed under the supervision of the departmental X-ray technician and when the unit is functioning there is no doubt that it will be a natural field of expansion of the tuberculosis control scheme in the eastern part of the province.

46. Also in the Southern Province a World Health Organisation tuberculosis survey team worked from September until December. During this period the team examined by the Mantoux test, supplemented by sputum and X-ray examination, nearly 3,000 persons in five groups of 600 of random sampling. The detailed results of the survey are not yet available and are unlikely to be received for some months, but the preliminary figures indicate an incidence of active tuberculosis in the group sample of the order of one per cent. If, as seems not unlikely, the incidence of disease in the sample is applicable to the area covered by the present tuberculosis scheme, then it would appear that there are some 8,000 cases of active tuberculosis in the part of the province covered by the scheme. It does, however, appear that in other parts of the Southern Province the incidence is less high. Few cases are recorded in the Kilwa District or in the Tunduru District, but in the western district of Songea there is undoubtedly an equally high incidence.

47. From all the centres mentioned above out-patient follow-up schemes are in operation in greater or lesser degree, and there was concentration on and expansion of this aspect of anti-tuberculosis work during the year. As was mentioned in the 1956 report the Foreign Mission Board of the American Southern Baptist Convention decided to participate in anti-tuberculosis work by building and operating a 100-bed tuberculosis hospital at Mbeya in the Southern Highlands Province. During 1957 this mission pushed ahead with its plans. Land was alienated for the purpose, architects' drawings obtained and the building of the hospital was let out to contract. It is expected that building operations will commence in the new year. The mission has expressed its willingness to co-operate with the government medical department and to fit in to an overall territorial tuberculosis plan. The hospital at Mbeya will fill an important gap in the territory's developing tuberculosis services, and there will remain only the Lake and Western Provinces where special provision for this infection has yet to be made.

Dysenteries and Enteric Fevers

48. With the exception of an outbreak of enteric fever at Kigonsera seminary in Songea District in April when 45 cases occurred almost simultaneously among the boys of one dormitory there were no significant outbreaks of this infection although it occurred sporadically in all parts of the territory. Cases continued to be recorded in smaller numbers in the resident labour on certain sisal estates, but improvements to sanitary facilities prevented any major outbreak.

49. Small outbreaks of dysentery were encountered in many parts of the territory but did not reach serious proportions. However, at Kilosa in June and July, 54 cases of amoebic dysentery were reported from the high density area of the town. It is believed that this may have resulted from severe flooding of the area in question when many pit latrines filled up and overflowed.

Trepanematosis

50. There was no indication of any increased incidence of yaws throughout the territory, or of syphilis in the urban centres. The anti-venereal diseases campaign in the Bukoba District was continued but did not appear to have effected any further reduction in the incidence of the disease. In the Tabora District a Native Authority sponsored campaign for the treatment of venereal diseases was not very successful, perhaps because of insistence that payment be made for treatment given. Generally throughout the territory Native Authorities developed a greater awareness of the importance of providing treatment for venereal diseases in their dispensaries and the numbers of dispensaries provided with penicillin was greatly increased.

51. Although no major anti-yaws campaign was undertaken during the year considerable interest was taken in this infection and at the request of the Government a trepanematosis specialist from the World Health Organisation paid a visit to the territory. During his stay in Tanganyika he visited in particular the Kasulu and Kibondo Districts and the Kilosa and Morogoro Districts. In the former two, the incidence of yaws is very high indeed whereas it emerged that the infection was of small importance in the Morogoro, Ulanga and Kilosa Districts, although in the coastal regions of the Eastern Province the disease is again prevalent.

52. Before the end of the year the report of the trepanematosis expert was received and consideration was being given to the possibility of initiating in the near future a mass anti-yaws campaign in the Kasulu and Kibondo Districts. Should such a campaign be undertaken it is understood that the Belgian authorities in Ruanda Urundi, the boundary of which marches with the Kasulu and Kibondo Districts, will simultaneously attack the problem among their people. Should this not be done it is likely that the effects of any campaign in this area of Tanganyika will be largely vitiated in view of the substantial movements backwards and forwards across the international boundary.

Cerebro-Spinal Meningitis

53. There was a very substantial decline in the incidence of this infection. The number of cases notified was 687 and there were 93 deaths. In the previous year 1,017 cases occurred and 140 deaths were recorded. Early in the year in the Lake Province there was a trend towards epidemic conditions in the Ngara/Biharamulo border area and an upward trend in Karagwe and also in Musoma towards the end of the year. In other districts a few cases occurred each month but there were no major outbreaks. The highest provincial total of cases was 201 with 24 deaths in the Central Province.

Anthrax

54. Cutaneous anthrax was encountered not infrequently, particularly in the cattle raising provinces of the territory, Northern, Central and Western. With modern treatment recovery was the rule and this infection is no longer regarded by the people with apprehension. No cases of intestinal anthrax have so far been specifically reported, but it is possible that cases will appear in hospital returns.

Rabies

55. Two cases of this infection in humans occurred in the Mbeya District both of which were fatal. The local dogs were found to be infected and prompt control measures were instituted. It was necessary to give anti-rabies treatment to a number of persons but happily no post-vaccinal complications were reported. In the Sumbawanga District rabies was reported in dogs and jackals in the border area which marches with Northern Rhodesia. Prompt action by the Veterinary Department in dealing with stray dogs and preventing movements of animals appeared to be effective as no human cases occurred.

Influenza

56. From the end of the first quarter of the year when reports began to be received of the pandemic occurrence of influenza in the Far East, it was considered to be only a matter of time before the infection would reach Tanganyika. The first indication that the virus was likely to be in East Africa was received from the Medical Officer of Health, Mombasa, to the effect that a few mild cases had occurred aboard the S.S. "Amra" which would arrive in Dar es Salaam on 27th June. During the month of July cases of influenza in Dar es Salaam began to increase, although at this time the causal virus had not yet been indentified. Virus A/Asian/57 was isolated in Dar es Salaam on 6th August, and the first official notification of Asian influenza in the town was for the week ending 17th August when 3,326 cases were recorded. The following week cases were reported from all provinces except the Southern Province, but one week later first notifications from this province were received. Subsequent events indicated that the first official notifications in Dar es Salaam coincided roughly with the infection peak in the town. In the week ending 24th August, 2,061 cases

were reported in the town and in the following week 1,052. Thereafter, notifications dwindled rapidly and by October the epidemic was virtually at an end in the capital. The total number of cases recorded in Dar es Salaam was 8,468 and no deaths were reported. The symptomology was typical, varying in no way from that reported from other infected countries.

57. The infection spread rapidly from the coastal seaports along railways and roads to all parts of the territory. Outside Dar es Salaam the epidemic peak was reached at varying dates in the month of September. There was a rapid decline in October and by mid-November the epidemic was virtually over. The Lake and Western Provinces were, however, an exception and a few cases continued to be reported each week in these provinces up to the end of the year. The general picture of the spread of infection was that the towns along the main rail and road routes were first infected and in all provinces institutions such as boarding schools, labour lines, prisons, etc. were heavily hit. Spreading from the main centres of urban population, the disease usually reached the remoter rural areas about 2–3 weeks later without changing its character.

58. In several instances the disease was noted among Asian communities before the African community was affected, and several reports were received suggesting that the Asian groups were more seriously affected than the Africans in urban areas. The percentage of Europeans affected was relatively low and, surprisingly, certain European groups appeared to escape entirely. For example, the considerable concentration of European employees at the Geita gold mine was unaffected.

59. The most common complications were lobar and bronchial pneumonia and these were generally limited to younger children and aged persons. A dry cough for two weeks or more after recovery from the disease was very common. In general the mortality was, as elsewhere, very low, but in certain of the higher inland districts where environmental conditions were unfavourable, a not unsubstantial mortality was recorded.

60. The total number of cases recorded throughout the territory was 93,725 and there were 158 deaths. It is, however, evident that the number of reported cases represented only a small proportion of those which actually occurred. It is possible that knowledge of the fact that there was no specific treatment for the disease led many people to stay away from hospitals and dispensaries.

(B) Vector-Borne Infections

Plague

Reported Incidence 1953-1957

	1953	1954	1955	1956	1957
Cases	12	–	–	5	5
Deaths	3	–	–	1	1
Case Mortality per cent	25·0	–	–	20·0	20·0

61. This year was a quiet one as regards plague and in only one instance was its presence established bacteriologically. This was in the Chome Valley an isolated area in the S. Pare mountains, where in January, 3 proved cases occurred and there were 9 suspect cases. Again in August and October further cases were reported, but in these it was not possible to isolate *P. pestis*. In January and August all the houses in the area concerned were dusted with gammexane D 034 and quarantine was established. An entomological investigation in the area revealed a high flea index of 8·3 as compared with the general territorial index of 0·97. The valley is very difficult of access and this fact together with the preventive measures taken probably played its part in limiting the spread of infection. It is anticipated that in the near future a road of access to the valley will be constructed and this may possibly lead to the endemic focus affecting other nearby areas through the medium of exported produce.

62. In the adjoining Northern Province, a patient was admitted to the Moshi Hospital and diagnosed as suffering from bubonic plague. It was deduced that the infection had been contracted at Mshati in the Moshi District and investigations revealed that both parents

of the patient had died of what was said to be a similar illness within the two previous weeks, one at home and one at a mission hospital. Although it was not found possible to confirm the diagnosis bacteriologically, anti-plague precautions were taken and no further incidents occurred.

63. In several other parts of the territory plague investigations were carried out following reports of unusual mortality among rats but no infection was discovered. Throughout the year one of the entomologists of the Malaria Division carried out investigations into the flea fauna of wild and domestic rats in the S. Pare mountains, Amani and Morogoro. A basic flea index of 0·97 was obtained from 184 specimens of rats and compared with indices in other areas. This investigation is still incomplete, but already valuable information regarding the flea fauna of rats has been obtained.

Relapsing Fever

64. There was no noticeable change in the incidence of relapsing fever which was prevalent mainly in the Western and Lake Provinces, particularly the latter. All recorded cases were tick-borne and no louse-borne infections were encountered.

65. The mortality recorded was low and treatment with penicillin or with NAB appeared to be equally effective.

66. In urban areas the practice of dusting huts with gammexane powder continued to develop and preparations conveniently packed for this purpose were readily available through commercial channels.

Sleeping Sickness (Human trypanosomiasis)

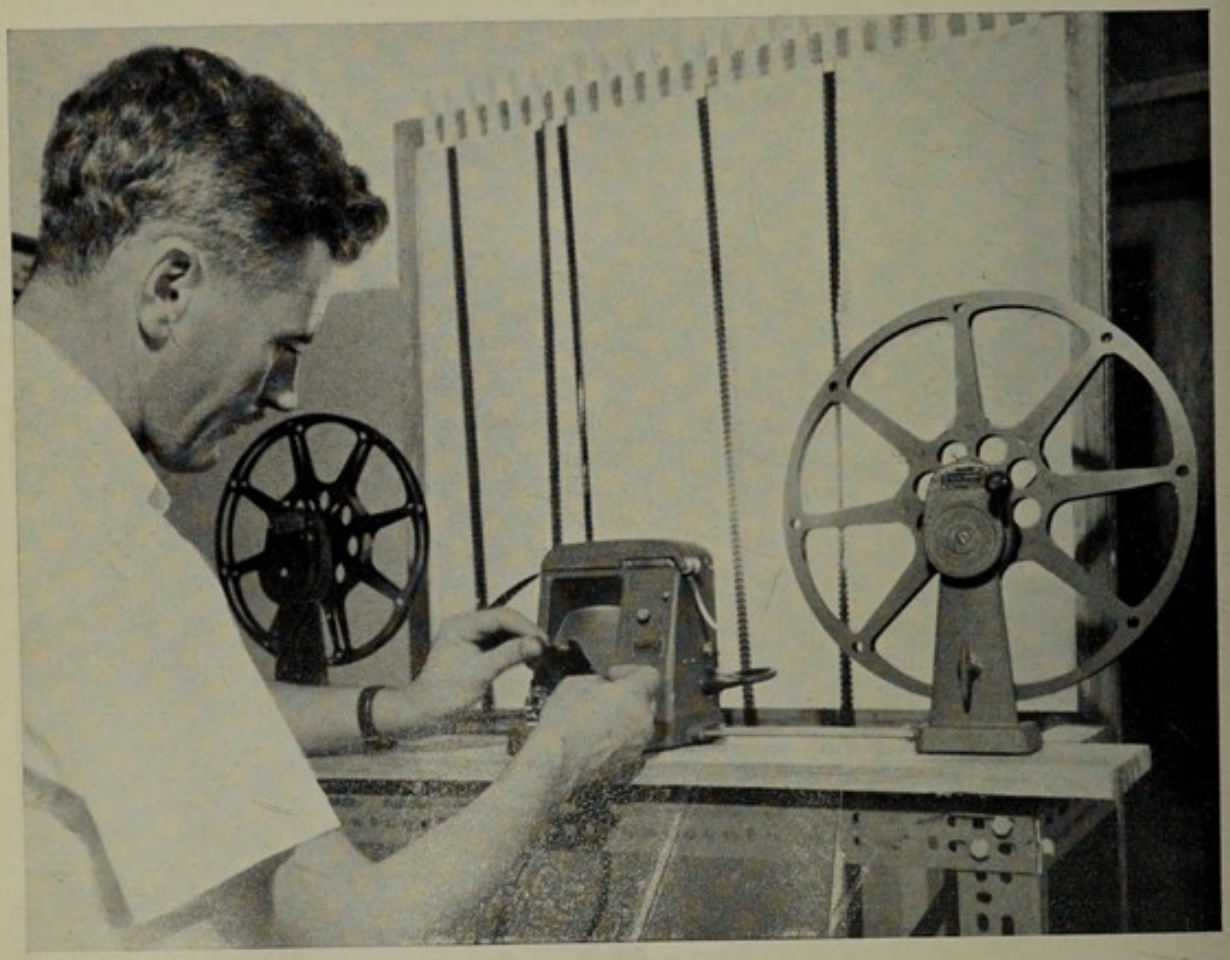
REPORTED INCIDENCE 1953-1957

	1953	1954	1955	1956	1957
Cases	736 ...	1,230 ...	923 ...	646 ...	411

67. The decline in incidence of sleeping sickness which has been noted over the past three years continued in 1957, and the number of cases recorded, 411, was the lowest for five years. The Western Province remains the most heavily infected province, and here there was a substantial drop in the number of cases recorded. Intensive anti-tsetse work was carried out in this province by the Department of Tsetse Survey and Reclamation. Discriminative clearing was done in the Usoke/Ndono area, and this work, which commenced in 1955, as advancing fly was threatening to drive out the population, showed its effectiveness and was continued throughout the year. Only one fly was caught in the clearing made in 1956. Clearing was also carried out between Usoke and Urambo with the purpose of reinforcing the existing extensive anti-tsetse measures in the area of the operations of the Tanganyika Agricultural Corporation. The other main area in the Western Province where anti-tsetse work has been noticeably successful in improving the settlement and sleeping sickness position was in the Buha districts of Kasulu and Kibondo. In the Kibondo District particularly, where extensive discriminative clearings were carried out over the past 4 years, and where during the year under review some 18 square miles were dealt with, a very satisfactory position was achieved, and the Kibondo District is now in effect a large area of almost continuous settlement with the remaining blocks of tsetse-infested bush diminishing every year. An indication of the progress made in this district is that during 1957 six cattle dips were nearing completion in Kibondo District in preparation for the importation of large numbers of cattle from other areas. Until a few years ago it would have been impossible for cattle to be introduced into what was then a tsetse-ridden district.

68. In the Lake Province which in the previous year gave cause for some concern, particularly in the Ngara District an improvement in the situation was observed. The number of sleeping sickness cases reported from Ngara was 26 as compared with 103 in the previous year. It is felt that here again much of the improvement derived from the steady application of a planned programme of anti-tsetse clearing.

Silk Screen Printing



Film Editing

69. In the Karagwe area of the Bukoba District where a small outbreak occurred in 1955/56 but thereafter petered out, cases were again reported and the position was being investigated as the year closed. It is clear that infection is persisting in the area and this is a matter of some moment as Karagwe is now an important centre of development with an increasing population.

70. In the previous report reference was made to the recurrence of sleeping sickness in the Maswa District after an absence of nearly twenty years. During 1957 cases continued to be recorded and there were 40 infections as compared with 28 in the previous year. Extensive anti-tsetse activity has been maintained in the area throughout the year and this has been combined with plans for increased productivity and better land utilisation.

71. In the Northern Province 23 cases were reported as compared with 56 in 1956. As in the past the infection was concentrated in the Magugu/Babati area one hundred miles south of Arusha on the Great North Road. In this area a policy was pursued of opening up to settlement land which had been evacuated on account of sleeping sickness in 1944/46 and considerable progress was made. A noteworthy feature of the infection in the Northern Province has been the high proportion of European cases, six being reported during the year.

72. In the Eastern Province the position remained much as in previous years, but a potentially dangerous situation arose through a growing disregard of the settlements effected during the 1940 outbreak. Steps to remedy this situation were being taken as the year closed.

73. In the Southern Province the number of cases reported, 38, was a decline on the previous year's figure of 56. Practically all came from the long established focus of infection round Kilimarondo and Nambwa in the western part of the Nachingwea District. Here the tsetse clearing programme which has been followed for the past four years continued with evident good effect, and the people hope within a year or two to be able to keep cattle in the area. There has also been an encouraging response to the scheme for closer settlement round Kilimarondo, but the concentration has still some way to go.

74. During the year the Sleeping Sickness Specialist based at Tabora in the Western Province continued his trials of new therapeutics. Melarsan Oxide/BAL (Mel B), although extremely useful, particularly in late cases of the infection, was recognised not to be the final answer and trials of new compounds continued with promising results.

Malaria

75. The Malaria Division of the Department has a medical officer in charge, two entomologists, four malaria field officers and subordinate staff. The headquarters is at Amani in the Tanga Province, but during 1957 an entomologist was posted to Morogoro and field officers were based also at Tabora, Kongwa and Mtwara. The Division was responsible for the supervision of anti-malaria work generally throughout the territory and in addition carried out useful investigations into the use of insecticides and anti-malaria drugs. Mosquito control work continued to be based primarily on drainage and larvicides, the latter comprising weekly oiling with high spreading malariol or dusting with B.H.C. formulations. Control work which is maintained in all urban areas was effective during the year and no significant outbreaks of malaria were reported. The disease is of course endemic in very many parts of the country and still continues to contribute substantially to the general morbidity experience.

76. In the Pare District the East African Malaria Institute continued the Pare/Taveta malaria scheme of residual spraying of houses. Beneficial effects began to be observed during the year. Spleen and parasite rates in adults had fallen substantially to about one-quarter of the level recorded before work started. The effect in children in the higher age groups was not so marked but it was considerably more marked in the younger age groups. From special observation of individuals in S. Pare the conclusion was reached that very few new infections were being acquired in the area during the year. The effect

of the reduction in malaria was shown in raised haemoglobin levels among the younger children and also among persons over forty years of age, and the observation was made that there also appeared to be some decrease in the frequency of occurrence of oral temperatures raised above 99°F. House infestations with *A. gambiae* have remained at a low level, perhaps even lower than during the previous year. The reduction achieved is about 96 per cent of the pre-spraying figures. *A. fenestus* remained absent.

77. During the year malaria control by residual spraying was essayed in two demographically isolated communities. At the Mpanda Minor Settlement which has grown up in the vicinity of the Uruwira Minerals mine and which is surrounded by uninhabited bush country, two spraying cycles were completed in March and November, 1957, in co-operation with the authorities at the mine. A good reduction in *A. gambiae* was obtained but the results with regard to *A. fenestus*, which is ordinarily highly susceptible to residual spraying, were less encouraging. Nevertheless what was achieved was sufficiently significant for the work to be continued next year.

78. At the rift valley settlement of Mto wa Mbu on the Arusha/Oldeani/Mbulu road, control by residual spraying was also attempted. It has for some time been considered desirable to control malaria in this settlement on account of the migration of African cultivators, having little immunity, from the Mbulu highlands down into the rift valley. There malaria is acquired and taken back to the highlands where, for three months in the year, the vector *A. gambiae* may become established. In fact recurrent epidemics of malaria have been reported in previous years from Mbulu and these it is believed resulted partly from the seasonal migration of cultivators through Mto wa Mbu. Malariometric surveys were carried out amongst residents and school children and it was considered that the rates indicate that malaria was hyperendemic there. As the settlement is an isolated one surrounded by uninhabited plains, it was decided to make use of residual spraying of houses. On an experimental basis supplies of a new long acting dieldrin formulation incorporating resins was obtained, and the actual spraying operation was conducted by the Colonial Pesticides Research Unit, Arusha. The malariometry and entomology was performed by the Malaria Division and the first cycle of spraying was undertaken in September 1957. Although reduction in anophelines was achieved it was too early by the end of the year to assess the efficacy of this trial and it is not intended to respray the settlement for at least one year in order that the duration of activity of the new dieldrin resins formulation may be properly assessed.

79. Malaria remained probably the main cause of morbidity in the territory and equally probably the most important single factor in the heavy mortality experienced in the early days of life which is apparent in the endemic areas. The infection does not, of course, occur uniformly throughout the territory with its varying geographical conditions, and the mountainous areas are generally free. The picture with regard to the infection was much as in previous years and there were no epidemic outbreaks recorded. It remains, however, a constant threat particularly as population increases, tending to force inhabitants of mountainous areas to settle in and develop lowlands in which the disease is endemic. Such settlers having been little in touch with malaria in the past have no immunity, and consequently suffer more severely than those people brought up in the endemic areas who have developed premunity at an early age.

80. Blackwater fever for so long a scourge in certain parts of the territory occurred very rarely indeed. Only three cases so far have been reported but it is possible that hospital returns when they are received will record a few more. It is certainly, however, no longer a condition of significance in present circumstances.

(C) Helminthic Infestations

Schistosomiasis

81. This infestation is widely prevalent throughout the territory. *S. haematobium* is almost universal in coastal areas but *S. mansoni* also occurs. The latter is however much more frequently met with in the drier provinces where water conservation activities are

greatest. Infestation with this form is intense in the island of Ukerewe where many cases showing intestinal granulomata were recorded during the year. Reports generally indicate increasing incidence of schistosomiasis following the construction in Unyamwezi and Sukumaland of dams and hafirs. Control of infection in the circumstances is extremely difficult, particularly as exact information regarding the intermediate hosts is not available.

82. During the year very considerable thought has been given to the problem of bilharzia and it was discussed at a number of inter-territorial conferences. A considerable amount of research work is being carried out and the object of these conferences was as far as possible to co-ordinate this work and to direct research into profitable channels. As was mentioned in the previous report the setting up of a centre for bilharzia research at the East African Medical Survey and Research Institute at Mwanza was considered and during the year an application was made to World Health Organisation for its assistance in this matter. Arrangements have not been made final but it is hoped that a concerted investigation will be initiated in the near future.

83. The Malaria Division working in the Tanga Province carried out during the year investigations into the ecology of the vectors of bilharzia. Bilharzia and moluscan surveys were carried out in an area some 10-25 miles from the coast. The urines of 3,400 persons and the stools of 900 persons were examined. Of the urine and stools 38·8 per cent and 0·4 per cent contained ova of *S. haematobium*. Only 7 contained *S. mansoni* and the majority of these persons had lived outside the province. With the possible exception of the older ages, no evidence was obtained to indicate interference with function or gross disease, but there appears to be much discomfort associated with the infestation in many children and some adults.

84. Observations were continued during the year on the seasonal fluctuations in three species of Bulinus snails. The results indicated that the snail populations in the areas studied followed an average growth curve whose maxima and minima are related to rainfall and temperature and the resultant ecological changes. Breeding peaks occurred at the time of the long and short rains in April/May and November/December respectively. These observations could be of considerable use in directing measures aimed at the destruction of the carrier snails. There is no doubt, however, that a great deal more information will have to be obtained before it will be possible to check this infestation which is growing in significance and importance with the development of the territory's natural resources.

Ankylostomiasis

85. Ankylostomiasis is also widely prevalent in the territory but is particularly commonly met with in the coastal areas. The pattern during the year differed in no way from previous years and there is little doubt that a great deal of morbidity is caused by this parasite. Its control, however, will continue to be impracticable until there is a substantial raising of the standards of environmental hygiene, and the population becomes latrine-minded.

Onchocerciasis

86. This infestation had previously been recorded in the Mahenge and Njombe Districts but nowhere else. During 1957 however, a case of the disease, proved by biopsy, was diagnosed in the Songea District and, in the eastern Usambara mountains around Amani, symptomatic carriers of onchocerciasis were found by Prof. Giaquinto a member of the World Health Organisation expert committee on onchocerciasis. Symptoms were limited to dermatitis and no cases of blindness resulting from onchocerciasis have so far been found.

IV.—MATERNITY AND CHILD WELFARE

87. All provincial reports again record expansion and development of these services and wherever they are provided the pressure on them continues to grow. It is obvious that mothers want help for themselves and their babies and are prepared to go to considerable trouble to obtain it. In this connection the following comment of the Provincial Medical

Officer, Tanga, is relevant:—

> "It has been particularly interesting to see the effect of the provision of these services in new centres. Initially most of the children are unhealthy but with teaching and encouragement and some treatment a marked improvement can be seen after a few months. The number of defaulters is surprisingly small and many mothers will go to considerable personal inconvenience to attend regularly."

This is apparent in practically all parts of the territory and the response of the people is excellent. The amount of work which is done is only limited by the availability of trained staff and as the number of health nurses and midwives available increases steadily each year, so too are maternity and child health services developing.

88. During the year for the first time it was found possible to post a nursing sister to the district hospital in Songea and as a result in the last three months of 1957 there were three times as many deliveries in the hospital's small maternity unit as in the whole of 1956. Ante-natal and child welfare attendances at this hospital also showed a great advance. In fact, there are now few district hospitals which are not the centre of a maternity and child health service, serving not only the urban centres but stretching as far out into the rural areas as staff resources permit. In nearly all Government hospitals there was during the year an increase in the number of institutional deliveries. Although the attempt is made as far as possible only to admit abnormal cases, demands for normal delivery in the hospital are nonetheless substantial and throughout the rural areas there was growing pressure for the provision of midwifery beds at Native Authority dispensaries to meet the needs of the local people. In some instances this demand has run ahead of availability of trained staff and the service provided is not always what it should be. Nevertheless a considerable number of Native Authorities were able to establish such centres and employ village midwives, and good work was done.

89. Ante-natal and infant welfare sessions were held in all the major urban areas and attendances continued to increase. These services too were spread out as far as possible into the surrounding rural areas, but it is not considered that there will be spectacular advance in this regard in the rural areas until the projected health centres are established and functioning.

90. Many mission hospitals also provided these services and such reports as have so far been received indicate that these hospitals have also experienced an increasing demand for them. There can now be few parts of the territory which do not come within the influence of either mission, government or native authority services. As this work expands there can be no doubt that it will increasingly form a most important vehicle for the dissemination of health education, and this fact has not been overlooked by the Health Education Section.

91. During the year further supplies from the United Nations Children's Fund were received to assist maternity and child welfare services operated both by Government and by missions. As in the past supplies consisted of drugs and diet supplements and teaching equipment for training schools. Arrangements were also made for the supply of substantial quantities of dried milk.

V.—SCHOOL HEALTH

92. It is only in Dar es Salaam that a formal school health service is in operation. This service, initiated by the Medical Department, has been operated by the Municipal Council of Dar es Salaam for the past two years, during which period much expansion has taken place. School children within the municipality were medically examined at regular intervals by school nurses and children found to require more than minor medical attention were, as in the past, referred to the government hospital organisation. During the year the Medical Officer of Health carried out BCG vaccination of school children following a tuberculin survey completed in 1955 by one of the department's tuberculosis officers.

93. Elsewhere in the territory formal school medical services hardly exist but a considerable amount of school inspection was carried out not only by medical officers but by subordinate medical personnel as well. Many schools are remote from any medical centre, and in such circumstances inspection is impracticable, but on the other hand very

many rural schools are sited near a dispensary and thus a measure of medical cover is ensured. The men in charge of the dispensaries, rural medical aids and dressers, are more and more coming to visit schools in their areas and some dispensaries hold special sessions to suit the convenience of the local schools. These visits and sessions are supplemented by visits from district medical officers when touring in their districts. The general impression appears to be that standards of personal cleanliness, nutrition and physique in primary scholars leave much to be desired. A striking change is noticeable, however, in most children entering boarding schools where regular food and better living conditions have their inevitable beneficial effect on the general health. There is no doubt that the introduction of some form of dietary supplement in primary schools would be of some benefit, but this is not in general a practical proposition at the present stage of economic development.

94. As mentioned earlier in this report children in boarding schools felt the impact of the influenza epidemic, but apart from this and minor epidemics of mumps, the health of children in boarding schools has been very satisfactory.

VI.—HEALTH EDUCATION

95. Now that a Health Education Section of the Medical Department has been established very much more specific attention was paid to this important work throughout the year. The section was gradually built up and finished the year with the full staff initially visualised. This consists of the Senior Medical Officer in charge, a Health Visitor, a Health Inspector, a Clerk, a Driver, a Messenger, two carpenters and a man trained in silk screen printing technique. Difficulties were encountered in obtaining the necessary equipment and raw materials locally and the supplies requested from UNICEF had not all been received by the end of the year. These difficulties were to some extent overcome by improvisation and borrowing from other departments of government and the production side of the Health Education Section's work was firmly established. Silk screen printing machines were manufactured in the section itself and during the year some 6,000 posters were produced. About 4,000 of these were made for and distributed by units of the medical department and the balance was allocated to the Social Development and Public Relations Departments. Valuable experience was gained in the potentialities of this technique and staff was trained to carry it out effectively.

96. Although the photographic laboratory worked on loans and improvisations because of a lack of basic equipment, a useful photographic library was built up and by the end of the year pictures, film strips and projection slides in black and white and colour were being supplied to district medical officers. Much time was spent by the section making essential contacts with other departments of government and organisations concerned with health education, and useful liaison was established with the Social Development Department, the Education Department, the Tanganyika Broadcasting Corporation and the Tanganyika Branch of the British Red Cross Society. In co-operation with such departments a number of experimental schemes have been started and several more planned. In Dar es Salaam, health talks and demonstrations designed by the section were given in a number of women's clubs by the staff of the Social Development Department. A rural health education scheme in the Moshi District was planned as a joint enterprise with the Social Development Department, the Education Department and the Moshi Native Authority. The intention is to carry out early in 1958 a survey of the needs of the area in question, to finalise the plan and assess what visual aids will be required to put it into effect. During the period of the rains it will be the function of the Health Education Section to process material obtained during the initial survey and prepare the necessary visual aids for use when the scheme is fully launched about May 1958. Another similar but smaller pilot scheme has been planned for certain areas in the Lake Province. This is aimed specifically against bilharzia, and again the co-operation of the Education and Public Relations Departments has been obtained.

97. As in past years a number of shows and exhibitions were held at various provincial centres and medical department exhibits were prepared. For the first time local departmental staff did not have to rely on their own resources and ingenuity but received material assistance in the way of posters and photographs from the Health Education Section. These exhibitions

aroused a great deal of public interest and there is no doubt as to their usefulness. In the Songea District of the Southern Province, the district medical officer, in close collaboration with the Health Education Section, produced a most effective exhibit on nutrition. Its success was substantial and the people concerned in its preparation were most gratified at the response there was from the local Chief and other influential persons who were so impressed by the demonstration of the effects of malnutrition, particularly in children, that they immediately made an approach to the Veterinary and Agricultural Departments' representatives in the area to give them guidance in the production of better crops.

98. Throughout the year, the Senior Medical Officer in charge, and latterly the health visitor and health inspector, travelled widely in the territory discussing health education problems with provincial and district medical officers and others. Opportunity was also taken to initiate the collection of basic information relating to health matters, particularly with regard to food taboos and similar customs relating to childbirth. All district medical officers were requested to prepare and submit to Headquarters their views as to the health education needs of their particular district and their suggestions as to how they might be met. These plans at the end of the year were under examination in the Health Education Section which will not only provide advice and assistance in their implementation but will ensure that the necessary visual aids are available.

99. The Health Education Section is now firmly established and has already done good work. When it obtains all the equipment it requires, it will undoubtedly play a great and growing part in the department's activities throughout the territory. It is nonetheless fully recognised that progress will not be rapid and that a steady, consistent effort is what is required to achieve positive and lasting results.

VII.—NUTRITION AND FOOD SUPPLIES

100. During 1957 in virtually all parts of the territory rainfall was well distributed in time and adequate in amount. In consequence all provinces reported generally good crops and adequate food supplies. From only one province was there a report of some food shortage in a restricted area which was attributed to a bad distribution of the previous season's rain. Grain stores were opened in the affected area and by the end of the year had been filled, and it was not anticipated that they would be required during the coming year. In spite of this, all provinces reported widespread protein deficiency of greater or lesser extent, particularly in children and old people. In some cases this could be attributed to the land being so exhausted as to be unable to produce even crops with poor nutrition value such as cassava. The Maposeni area of the Songea District was a case in point and here it is reported that kwashiorkor is rife. Nevertheless even in this area change was observed as a result of the health education efforts referred to earlier. It is reported that cattle are no longer being kept as an evidence of wealth and three butchers shops were brought into use in the district. Poultry too, is on the increase, and efforts are being made to encourage the creation of fish ponds.

101. In general, however, a great deal of the malnutrition and undernutrition which is observed, clearly results from ignorance, poverty and inability to cultivate owing to laziness and apathy, and sometimes debility from disease and senility.

102. At Muhesa hospital in the Tanga Province, cases of gross malnutrition in children were frequently seen. These cases, generally the children of employees on sisal estates, result from the parents accepting the generous issues of dried rations from the estates and selling them for cash, again evidence of ignorance and lack of appreciation of what the children need. The desire for money with which to purchase luxuries does seem to play its part in causing malnutrition. In the western Lake Province, notably in Biharamulo, an unbalanced attention is paid to cash crops rather than to food crops for personal use. The Provincial Medical Officer, Lake Province, made the following comment:—"Schools line their treasuries with the proceeds of coffee and bananas while children may go hungry", and in Ukerewe also it is remarked, "that the desire for cash seems almost to be an obsession, so much so that the suggestion of using foodstuffs which could be sold produces horrified attitudes of pretended incomprehension."

103. All this indicates the great need that exists for education, and specifically health education. All members of the department are fully aware of this and to the limit of their resources have applied themselves to the task of providing knowledge which will prevent the occurrence of illness and suffering which is so common and which could be so easily prevented.

VIII.—ENVIRONMENTAL HYGIENE

(A) Urban Housing and Sanitation

104. Although the standards of housing and sanitation in the towns still leave very much to be desired, material improvements were observed during the year and slow but steady progress was made. In several towns an important trend was the granting of long leases, having the condition that buildings in permanent materials should be erected, of plots in areas normally occupied by Africans. In Moshi for example, 128 plans for African houses were submitted, all in permanent materials.

105. Almost every district reports some progress in the replacement of dilapidated insanitary structures by buildings which, while satisfying local desires and being reasonably cheap to build, were better planned and better ventilated, and enabled a reasonable standard of hygiene to be achieved. In most urban centres there was considerable building activity to meet the housing needs of the immigrant peoples and real progress was made, particularly as regards the Asian community.

106. A disturbing feature of urban sanitation has been the number of instances in which uncontrolled peri-urban development of the poorest type has given rise to slum conditions and done much to negative the efforts of certain Town Councils to improve conditions in the areas of their jurisdiction. During the year in several instances areas adjoining township boundaries were declared minor settlements in an endeavour to bring this unsatisfactory type of development under a measure of control.

107. As in past years public health staff devoted much effort to maintaining reasonable standards of hygiene in the multiplicity of small hotels and restaurants existing in most townships. Much was achieved in this way but without constant vigilance conditions rapidly deteriorate and it cannot be believed that there is any deep appreciation of the reasons and necessity for observance of rules of hygiene in such establishments.

108. In several towns which have suffered over the years from an insufficient water supply marked improvement was observed during 1957. Two such towns, Dodoma and Tabora, had additional water sources made available and at the end of the year had more satisfactory supplies than ever in the past. Most townships in the territory now have a quantitatively adequate water supply, but not in every case are these supplies entirely satisfactory qualitatively. Nevertheless, in this regard also definite progress was made, and as much as was possible with available finances was done to improve matters. During the year work continued on the new supply to Dar es Salaam from the Ruvu river. When its installation is completed the needs of the capital will be met for many years to come.

109. In many of the towns in the territory the stage has been reached in their growth when the absence of sewerage is becoming a real problem. No major sewerage scheme was installed during the year but minor improvements were effected. It is clear however that in some instances very radical steps will be required to meet the growing problems, particularly as in a number of towns housing is often badly sited in low-lying areas with a high water table. It is possible that this type of situation may necessitate building limitations and perhaps re-development elsewhere.

110. Refuse collection services of varying standards of efficiency exist in all townships and minor settlements. During the year steady progress was made towards the provision of individual receptacles in business and domestic premises, and a number of improvements were made in the methods of collection. In general throughout the territory disposal of urban refuse was by means of controlled tipping.

(B) Rural Sanitation

111. It cannot be claimed that there was a great improvement in the general sanitation in rural areas. This can only come slowly with the general development of the territory. Such public health staff as was available was hard put to it to do other than attend to the present needs in the urban areas. Nonetheless from these areas and from minor settlements as much supervision of the surrounding rural areas as was practicable was carried out. It can, however, only be admitted that conditions remained primitive in the rural areas, although some encouragement can be drawn from the progress of several campaigns which have been carried out by public health staff and staff of the Social Development Department to encourage the digging of pit latrines and the safe disposal of domestic refuse.

(C) Food Hygiene

112. In this regard too progress was very slow and standards of hygiene in the storage, handling and sale of foodstuffs in general continued to leave much to be desired. The staff of the department and of the various township authorities devoted a great deal of time to this question and although it cannot be claimed that great progress was made, reasonable control was effected. An encouraging feature was the growing tendency of food vendors to seek the advice of public health staff and to request inspection, before it was exposed for sale, of consignments of food which appeared to the owner to be in doubtful condition. In a number of these instances unfit stocks were surrendered voluntarily, and it was only in exceptional cases that it was necessary for legal proceedings to be instituted. In some parts of the territory where food supplies must be stored over prolonged periods because of difficult communications, it was often found that storage facilities were inadequate and these two facts led to the marketing of large quantities of sub-standard food supplies. The efforts of public health staff during the year have in certain cases led to dealers reducing the quantities of foodstuffs stored, with considerable improvement in standards.

IX.—INDUSTRIAL HEALTH

(A) Health of Labour

113. Both the Medical and Labour Departments are concerned with the health of employed labour throughout the territory and are unremitting in their efforts to see improvement in living and working conditions. An important function of these departments continued to be supervision of the recruitment of labour for work in the large organised industries such as the sisal industry and the mines. All such labour recruited through recognised recruiting organisations was medically examined before being transported to the place of employment, and by this means a considerable number of unfit persons were filtered out. Many of those who were rejected initially were given treatment locally to fit them for employment, and it has been widely observed that the labour employed in the main industries improves substantially in health under the generally satisfactory conditions within these industries.

114. On most of the large sisal estates and mines standards of housing and amenities provided were satisfactory, and although medical facilities varied considerably, from undertakings employing resident doctors and operating excellent hospitals to others with small rudimentary dispensary services, it can be said that in general the medical needs of the labour forces were reasonably met.

115. The most pressing medical and public health problem with regard to labour exists in the Tanga Province where an increasing incidence of pulmonary tuberculosis is apparent. Although on the sisal estates limitations are placed on the number of persons who may sleep in one room, the workers themselves do not always observe this rule and local overcrowding results. This of course cannot but add to the tuberculosis problem, but it is a practice which it is extremely difficult for the estate management to curb.

116. As in the past the Tanga branch of the Ross Institute continued to provide to subscribing estates in the Tanga area, excellent preventive services in the control of mosquito-borne disease, of hookworm and schistosomiasis. Not all estates in the area subscribed to the institute, but those that did derived substantial benefit from it. At the close of the year it appeared possible that this service might be discontinued.

(B) Industrial Diseases

117. Industrial injuries continued to form an important part of the work undertaken at Tanga and Korogwe hospitals, and to a lesser extent at Muhesa. Tanga has for many years had a large orthopaedic clientele, mostly resulting from this type of injury, and the physiotherapy unit at the Tanga hospital deals with many of these cases. Ulcers continued to be a common disability, particularly among sisal workers and it is felt that this is a matter in which a more positive preventive approach might be made by employers to reduce the incidence of this disabling condition with economic advantage to themselves.

118. The influenza epidemic, as would be expected, showed its effects in the concentration of labour in industrial organisations, but fortunately was of short duration. Apart from this no serious outbreaks of disease among organised labour forces were reported during the year.

(C) Housing of Labour

119. During the year no spectacular advances were reported, but on the other hand no adverse reports on housing were received from medical officers. Standards of housing on farms is not as high as it is in the large sisal estates and mining organisations, but it cannot be said that even here housing is completely unsatisfactory. Employers appear to be fully aware of the part played by reasonable housing in maintaining a contented labour force.

X.—INTERNATIONAL AND PORT HEALTH

120. No cases of major quarantinable diseases were encountered during the year in vessels using the territory's ports.

121. As smallpox was not reported in the ports of neighbouring territories, no special precautions on this count were necessary with regard to coastal traffic.

122. Of the four ports Dar es Salaam, Tanga, Lindi and Mtwara which cater for overseas shipping, it was only at the first that a fully developed port health organisation existed. Here a port health officer, a port health inspector and junior health staff were available throughout the year, having responsibility not only for the port of Dar es Salaam but also for the health organisation at the Ukonga international airport.

123. The number of ocean-going vessels arriving in Dar es Salaam during the first six months of 1957 showed a decrease of 76 compared with the corresponding period in the previous year. This decline in traffic was undoubtedly due to the closure of the Suez Canal. During the latter six months of the year there was a considerable increase in vessels arriving at the port, but even so there were 32 less than in 1956. There was also a decline in the numbers of passengers landing from ocean-going vessels, but the number of transit passengers increased substantially. Schooners and other coastal craft entering the harbour showed an increase of 55 over 1956, but here again fewer passengers were landed.

124. The year showed important changes in the traditional dhow traffic. The coastal dhows operated much as in the past, but only two Arabian dhows arrived in Dar es Salaam as compared with 45 in the previous year. Whether or not this indicates an end of this ancient traffic remains to be seen, but there can be little doubt that competition from other modes of sea transport must be severe indeed. On the other hand, the number of Indian dhows using the port increased from 26 in 1956 to 57 in 1957. The following table shows

comparative figures for Dar es Salaam from 1954-57:—

	1954	1955	1956	1957
No. of ocean-going ships arrived ...	1,086	853	826	794
No. of passengers disembarked	23,423	23,671	23,384	22,518
No. of schooners arrived	468	533	739	794
No. of passengers disembarked	6,158	4,350	7,812	7,664
No. of dhows arrived	471	464	514	346
No. of passengers disembarked	889	411	354	324

125. Twenty cases of infectious diseases were landed from vessels in Dar es Salaam either under surveillance or under observation.

126. Anti-rodent measures were carried out in the port of Dar es Salaam by the E.A. Railways and Harbours Administration. A total of 1,645 rats were trapped and approximately 20 per cent of these were sent to the municipal Public Health Department for laboratory examination. No evidence of plague was observed. On dhows and schooners rodent control continued to be under the supervision of the port health office whose rat catcher destroyed 245 rats on these vessels during the year. One vessel was de-ratted by a private firm of fumigators under the supervision of the Port Health Officer. Sodium mono fleuro acetate was satisfactorily used for the first time for this purpose in Tanganyika and a de-ratting certificate was subsequently issued. Six de-ratting exemption certificates were also issued during the year.

127. At Ukonga airport, Dar es Salaam, there was again an increase in traffic during the year, 26 more aircraft landing and 3,967 more passengers arriving by air. The following table provides comparative figures relating to Ukonga airport during the past 3 years:—

	1955	1956	1957
Number of aircraft arrived (excluding special aircraft and Government aircraft)	2,040	2,303	2,329
Number of passengers arrived	26,126	27,556	31,423

128. After Dar es Salaam, Tanga is the next main port of the territory. It is rarely, however, that it is the first port of entry to East Africa, and sanitary formalities are minimal and are normally conducted by the pilot. Where the port is the first contact with the East African coast, clearance is undertaken by the Medical Officer of Health. In the Southern Province the main port is Mtwara, and during the year there was only a slight increase in the volume of shipping. The number of vessels entering the port during the year was 150. Lindi is mainly a coastal port but does on occasion deal with overseas vessels. In both Lindi and Mtwara health formalities were conducted by local departmental staff.

129. On Lake Tanganyika a port health organisation was maintained at Kigoma to deal with lake steamers from N. Rhodesia and the Belgian Congo. On Lake Nyasa there was no specific territorial organisation. During the year there were no incidents of note at either the lake or inland borders of the territory.

XI.—HEALTH OF PRISONERS AND DETAINEES

130. The general health of prisoners and detainees was quite satisfactory throughout 1957. No epidemic outbreaks were reported other than the expected experience of influenza, and at Maweni prison in the Tanga Province an outbreak of diarrhoea and vomiting which affected 53 prisoners. The cause of this incident was not established.

131. Regular inspection of prisoners and prison premises was carried out and it was observed that in most cases the prisoners benefited physically from their stay in gaol indicating that the approved prison diets were satisfactory in composition. A few cases of early pellagra were seen at Iringa, but these yielded quickly to treatment.

132. As in the previous year a number of isolated prison camps was maintained in various parts of the country, inmates being engaged on road construction and other public works. Medical supervision of these camps again created some problems but was nevertheless satisfactorily maintained. The standard of sanitation in the camps was adequate and the health of the prisoners was good.

133. During the year there were discussions regarding the future management of the Broadmoor institution at Dodoma for the criminally insane. In 1957 this institution continued under the direction of the Commissioner of Prisons, but it was agreed that it would become a responsibility of the Medical Department in the coming financial year.

PART THREE—CURATIVE SERVICES

XII.—HOSPITALS

(A) Dar es Salaam Hospitals

134. The hospitals in Dar es Salaam, namely the Ocean Road Hospital, the Sewa Haji Hospital, the Muhimbili Maternity Hospital and the Infectious Diseases Hospital, continued to be administered as a single unit. In addition, those parts of the new Princess Margaret Hospital which were in operation during the year were administered by the same organisation. The old Msasani Hospital for mental diseases became uninhabitable during the year, and in its place the mental holding unit at the Princess Margaret Hospital was brought into use.

135. The Ocean Road Hospital started the year as the only departmental institution in Dar es Salaam at which charges were levied, and during 1957 upward revision of these charges was effected. As a result of this, or so it would appear, there was a temporary reduction in the number of admissions but as the year closed the hospital's performance was returning to what it had been before charges were increased.

136. The Sewa Haji Hospital, which is at present Dar es Salaam's general hospital continued to function in the old out-moded and unsatisfactory buildings where nonetheless very good work was done. Pressure on the beds of this hospital was at times severe, and during the influenza epidemic the hospital was hard put to it to meet the demands placed upon it. The hospital, which is unsuitably sited near the dock area, was served by two out-patient dispensaries at Mnazi Mmoja and Ilala. A further similar dispensary was completed before the end of the year in a third African residential area—Magomeni—but owing to shortage of staff it was not possible to bring it into use by the end of December. In October fee charging sessions were introduced at Mnazi Mmoja and Ilala dispensaries. Free sessions were continued as in the past, but nevertheless the effect of the introduction of the charges (which are, in fact, nominal) was an immediate substantial reduction in attendance and although as the year drew to a close attendances were again increasing they had still not returned to the level they were at before charges were introduced. These dispensaries again proved themselves most efficient units capable of dealing smoothly and quickly with very large numbers of out-patients. Their performance has been so satisfactory that it is the intention to make use of this design in certain other urban areas of the territory.

137. Good progress was made with the construction of the Princess Margaret Hospital and Training Centre. By the end of the year the two main ward blocks were completed, as was also the services block. In addition two male and two female hostels were completed and the only major buildings remaining to be erected were the X-ray and operating theatre block and the training school. Neither of these buildings had been started at the end of the year and it is clear that the hospital will not be ready for occupation until the latter part of 1959. Delay in the design of the theatre block was occasioned by difficulties over the system of air-conditioning proposed. These difficulties had not been fully overcome at the end of the year.

138. Throughout the year the out-patients and administration block of the new hospital was largely occupied by the Senior Hospital Secretary and his stewards as a general equipment store and as offices. The dental section, however, operated fully providing Grade IV out-patient treatment and also facilities for the training of dental assistants. The physiotherapy department of the hospital was utilised for most of the year as part of the training school.

139. Apart from the work at the new Princess Margaret Hospital there were no additions to departmental buildings in Dar es Salaam. However, at the Ocean Road Hospital a special unit for the care of cases of poliomyelitis was established by making use of certain staff accommodation.

140. As already mentioned, pressure on beds at the Sewa Haji Hospital was consistently high throughout the year, at times uncomfortably so. It is clear that well though this hospital has served the capital in the past it is reaching the stage now where it is becoming unable to meet the demands of the town. This is also the case with regard to the Muhimbili maternity hospital where the numbers of patients again showed an increase during the year. This semi-permanent hospital continued to have 40 beds and 37 cots and the average number of deliveries per month was approximately 136. The total number of babies delivered in the hospital was 1,697. The maternal mortality rate was 8·8 per 1,000 deliveries as compared with 7·7 in the previous year and the neo-natal death rate was 27·2 as compared with 25·3 in 1956. Ante-natal attendances at the out-patient department of this hospital again showed an increase, there being 3,311 as compared with 3,133 first attendances in the previous year. Total attendances in 1957 numbered 27,871 as compared with 16,079 in the previous year. Infant welfare sessions also showed increasing attendances, the total in the year under review being 32,368 as compared with 25,370 in 1956.

141. The hospital is the centre of a small and growing domiciliary midwifery service which is operated by a nursing sister and five female nursing orderlies. The total number of domiciliary deliveries undertaken was 283 as compared with 257 in 1956.

142. The Infectious Diseases Hospital, which also is an old outmoded institution unsuitably sited in an area of important urban development, was very largely devoted throughout the year to the treatment of cases of tuberculosis. The number of leprosy patients in the institution was decreased throughout the year, but a substantial out-patient treatment service continued to be based on the hospital. It is planned to abandon this hospital as soon as it is possible for the Princess Margaret Hospital to be brought into use. At that time when patients are transferred to the new hospital from the Sewa Haji Hospital it is the intention to vacate the Infectious Diseases Hospital and as an interim measure provide accommodation for patients in a portion of the Sewa Haji Hospital which will be retained for the purpose.

(B) District Hospital Services

Eastern Province

143. In this province there are hospitals under the charge of registered or licensed practitioners at Morogoro, Kilosa, Mahenge, Bagamoyo and Utete. In addition, on the island of Mafia there is a small hospital under the charge of a medical assistant.

144. As in the previous year all these hospitals were under considerable pressure and in some instances experienced difficulty in meeting the demands placed upon them. The Morogoro hospital which is the main institution of the province had a bed strength of 196 and approximately a 90 per cent bed occupancy during 1957. In the middle of the year staffing difficulties necessitated a reduction in the tempo of work for a short period, but the situation rapidly returned to normal and in particular a very considerable amount of surgical work was carried out. It was not possible to extend the facilities available and as certain of the buildings are outmoded and inadequate, particularly the administration and out-patient block, work was carried out under some difficulties.

145. Kilosa hospital with a bed strength of 100 recorded an extremely busy year and an average bed occupancy of 101·4 for the first 10 months compared to 88·2 for the corresponding period the previous year. These figures of course mean that at times it was necessary to resort to the unsatisfactory expedient of accommodating patients on the floors of the wards. At this hospital too it was not possible to make any major improvements, although certain minor works were carried out and re-decoration effected.

146. Mahenge hospital at the headquarters of the Ulanga District had a bed strength of 78, but it was one of the few hospitals in the territory upon which pressure was slight. This is perhaps because the institution is sited high in the hills where the population is relatively small. One of the great disadvantages at this hospital is the lack of a piped water supply and it was gratifying to know that towards the end of the year arrangements for such a supply to be installed were well advanced.

147. Bagamoyo hospital, to which a full time medical officer was posted for the first time in 1956, was affected by the general staff shortage in the latter part of the year. The medical officer went on leave in August and no replacement was available although arrangements were made for the post to be filled in February 1958. The hospital which consists of a very old and unsatisfactory group of buildings handled a reasonable number of out-patients but on the in-patient side was, as could be expected in the circumstances, slack for a large part of the year.

148. Utete hospital is another small, unsatisfactory and badly sited institution which requires replacement. Its staffing also presented problems during the year, but nevertheless good work was carried out and there was a not inconsiderable increase in the amount of surgical work performed.

149. The Mafia hospital is a small 12-bed unit. It had a very busy year, and it is clear that its expansion as soon as this may be practicable is necessary. A senior medical assistant was in charge and he was the only person with formal medical training on the island which has a population of some 12,000 people. The District Medical Officer, Morogoro, visited Mafia each month, however, and conducted surgical sessions. In addition there were standing arrangements for the transfer of seriously sick patients from the island to the Sewa Haji Hospital in Dar es Salaam.

Central Province

150. In this province there are hospitals under the charge of registered or licensed practitioners at Dodoma, Kongwa, Singida, Kondoa-Irangi and Mpwapwa. In addition, there are bedded dispensaries run by medical assistants at Manyoni and Itigi. As in the past all these institutions worked to capacity. No major additions were effected in any of them, but minor improvements were carried out which increased efficiency and amenities. An important improvement in the general hospital organisation in the province was being given effect to as the year closed in that the Grade B laboratory previously sited at Kongwa hospital was being transferred to the provincial hospital at Dodoma where it will be able to give a more efficient and effective service to the other hospitals throughout the province. At Dodoma too, it was also found possible in existing accommodation to make provision for a dental clinic to which will be posted early in 1958 one of the first group of qualified dental assistants.

151. The new 60-bed hospital at Singida opened in January and its popularity was immediately apparent. It has continued to work to full capacity throughout the whole year. Built to the standard design adopted for district hospitals, it is a very satisfactory unit although there is no doubt that it will be necessary in the not too distant future to expand it to meet the increasing pressure on the hospital services in this district.

152. Kongwa hospital had a bed strength of 135, but 40 of these beds were specifically allocated for the treatment of tuberculous cases. The remaining general beds coped adequately with the work presenting, but this hospital constructed as it is of temporary materials cannot be expected to continue to function for much longer. The buildings are infested by termites and maintenance was a heavy burden. The building of a new hospital of permanent materials will require a high priority in the next capital planning period.

153. Kondoa hospital with 46 beds, although of a semi-permanent structure, functioned very satisfactorily during the year. Minor improvements were effected to the kitchen and the laundry, and a water-borne latrine was installed.

154. Mpwapwa hospital and Manyoni and Itigi bedded dispensaries operated satisfactorily. No major improvements were effected.

Southern Highlands Province

155. In this province there are hospitals under the charge of registered or licensed practitioners at Mbeya, Iringa, Tukuyu and Njombe. In addition there are important and extremely busy bedded dispensaries run by senior medical assistants at Kyela and Malangali.

156. At Mbeya hospital the programme of improvements and reconstruction continued and a further 26-bed ward was completed and brought into use. In addition, by the end of the year a new out-patient administration block to standard design was under construction and its completion will greatly improve the effectiveness of this important hospital.

157. At Iringa hospital there were no major additions to the grade IV wards, but pressure on the grade I accommodation became so great (particularly as one of the existing buildings was declared a dangerous structure and had to be evacuated) that it became necessary to take over a nearby Government residential quarter to provide additional accommodation. This was merely a temporary expedient and at the same time planning of a new grade I block was undertaken. This project which is part of the approved capital programme will be completed in the financial period 1958/59.

158. The Tukuyu hospital was once again among the busiest in the province. As mentioned in the previous report the buildings are old and very unsatisfactory and there was during the year considerable discussion of a suggestion that as the area is subject to earth tremors they were in fact in a dangerous condition. This suggestion was refuted by technical experts and it is expected that the hospital will be able to continue as it is until financial provision can be made in the next capital planning period for a much needed new hospital.

159. The new Kabena hospital at Njombe was shown by the year's performance to have insufficient accommodation satisfactorily to meet the demands placed upon it. The bed strength was only 36 and the institution was constantly overcrowded throughout the year. 1,320 patients were admitted and the average daily bed state was 37·6 as compared with the corresponding figures of 679 and 22·96 in the previous year. Out-patient attendances also rose very markedly, the total being 19,921 as compared with 11,513 in 1956. The number of confinements during the year was 130, again a very great increase on the figure of 38 for the previous year.

160. The Kyela bedded dispensary with 22 beds again had a very busy year and was in fact one of the busiest units in the service. It is sited in an area of very dense population and its expansion to full hospital status is becoming more and more pressing. At Malangali too, the situation, although not so acute, was similar and there is no doubt that these non-doctor units filled a very important need.

Southern Province

161. In this province there are hospitals under the charge of registered or licensed practitioners at Lindi, Mtwara, Nachingwea, Songea, Kilwa and Tunduru.

162. Although Lindi hospital is not sited at provincial headquarters it continued to be the most important hospital in the province, and in fact functioned as the provincial hospital. An important addition was the new maternity ward of 13 beds which was completed and brought into use during the year. The hospital finished the year with a bed strength of 103 and all this accommodation was fully utilised.

163. At Mtwara there was again a considerable increase in the work and the inadequacy of the existing buildings was further emphasised. The nominal accommodation for grade IV patients is 49, but at peak periods the numbers accommodated approached nearly to 70. Admissions to this section of the hospital numbered 2,218 as compared with 1,300 in 1956. This increased performance in the limited accommodation surpassed that of the much larger hospital at Lindi where the number of admissions during the year was 1,919.

164. Nachingwea hospital with a bed strength of 103 was adequate to meet the needs of the relatively sparsely populated district in which it is situated. In consequence, in the latter part of the year 45 of its beds were diverted for the treatment of tuberculous cases and the hospital became the headquarters of an officer appointed as tuberculosis officer for the Southern Province. This diversion of beds led to considerable pressure on the remaining general beds, and although the situation was reasonably catered for it was recognised at the end of the year that it might be necessary to effect re-organisation of existing buildings at this institution to increase the number of general beds available.

165. The performance of Songea hospital substantially improved and it was by the end of the year working to full capacity. This was undoubtedly due to improvements in the staffing of the institution, including the posting for the first time to the hospital of a nursing sister. There was a very material increase in the volume of maternity work and the little maternity unit gained in popularity as the year progressed. A number of minor alterations and improvements were effected, including the provision of a laundry, a food store and two nurses quarters. The maternity block was completely renovated. The water supply to the hospital and its sanitation remain less than satisfactory and virtually complete replacement will very soon be necessary.

166. At Newala the new 60-bed hospital was completed and opened in October, and was by the end of the year shaking down into an effective unit. The in-patient accommodation was not under pressure but the out-patient department was extremely popular and over 3,000 attendances were recorded in November.

167. Good work continued to be carried out at the smaller hospitals at Tunduru and Kilwa Kivinje, although at both places the hospital buildings are less than satisfactory. Tunduru was exceptionally busy. The total out-patient attendances numbered 45,800, equivalent to more than 150 per working day. This was in spite of the fact that for a considerable part of the year it was not possible to post a medical practitioner to Tunduru and the institution was under the charge of a medical assistant.

Northern Province

168. In this province there are hospitals under the charge of registered or licensed practitioners at Arusha, Moshi, Mbulu and Monduli. All these institutions worked under very real pressure indeed and, particularly at Arusha and Moshi, conditions were as a result unsatisfactory. In Arusha hospital this was especially evident in the out-patients department which is now totally inadequate to handle effectively the large numbers of patients attending. The grade IV hospital at Moshi, Mawenzi Hospital, continued to be one of the busiest in the territory. The additional in-patient accommodation provided in 1956 in the form of two new wards made for better hospital working during the year under review, but as it was not possible to effect any improvements to out-patient facilities the chaotic conditions of overcrowding and discomfort referred to in the previous report continued. Until it is possible, and it is hoped that this will be in the financial period 1958/59, to provide a new out-patient department on the lines of the dispensaries in Dar es Salaam, this unsatisfactory condition must continue.

169. Mbulu hospital with a bed state of 104 had an average bed occupancy of approximately 95 and there were periods of overcrowding. The over-riding problem in this district being tuberculosis, 38 of the hospital beds are specifically devoted to the treatment of cases of this infection. Nevertheless it was not possible to restrict tuberculosis cases to this section of the hospital and they infiltrated into a substantial portion of the general accommodation in spite of the fact that the hospital at Oldeani some 40 miles from Mbulu which was under the charge of a medical assistant, was fully utilised as an overflow for tuberculosis cases. There is no doubt that pre-occupation with this pressing problem affected the general medical work at this district hospital.

170. Monduli hospital, at the headquarters of the large Masai District with its sparse and nomadic population, was the only institution in the province which did not report an increase in the in-patients and out-patients treated during the year. Owing to staffing difficulties it was only possible for this hospital to be served by a part-time medical officer for the greater part of the year.

Tanga Province

171. In this province there are hospitals in the charge of registered or licensed practitioners at Tanga, Korogwe, Lushoto, Muheza and Pangani. In addition there is a hospital temporarily under the charge of a medical assistant at Same.

172. Tanga hospital is a fully equipped and staffed general hospital of 372 beds with subsidiary units comprising a general out-patient centre, maternity unit and maternity and child health clinic, a male tuberculosis unit and one small dispensary. Many of its buildings are old and out-moded and the first phase in the rebuilding of this important institution approached completion by the end of the year. This consists of the Galanos block which will provide accommodation for 150 maternity and female and children's beds. This unit will be brought into use early in 1958. Other important constructional work in progress at the end of the year was a new kitchen and laundry, and a block of six self-contained flats to accommodate 12 certificated female nurses. In addition extensive alterations were carried out to the main operating theatre of the hospital to achieve a better through-put of work. Throughout the year there was little slackening of pressure on hospital beds as the institution serves one of the most highly industrialised areas of the territory and draws many of its patients from the employees of the sisal industry.

173. The Infectious Diseases Hospital at Tanga functioned in fact as a tuberculosis unit for male patients and it remained filled to capacity. No special accommodation for female tuberculous cases was available and such patients had perforce to be accommodated in the general hospital.

174. Korogwe hospital with 116 beds also had a very busy year. Tuberculosis at this institution was a real problem and it was necessary to allocate a large ward of 27 beds for the treatment of male cases and in addition the isolation ward nominally of 6 beds was used to accommodate up to 13 female patients, The admission of these long term cases led to very real pressure on the remaining general beds, a large proportion of which were continually occupied by long stay patients admitted from the surrounding sisal estates suffering from tropical ulcers. Extensive redecoration of this hospital was carried out during the year and a number of minor structural alterations effected to give extra storage space and to provide staff changing rooms.

175. Nearly half of the 98 beds at Muheza hospital were used during the year as a tuberculosis annexe of Tanga hospital. Early in the year a nursing sister was posted to Muheza and this led to very marked improvement in the hospital organisation. Considerable work was carried out to improve the temporary buildings which comprise this hospital and most of the thatched roofing was replaced by galvanised iron.

176. The new district hospital of 30 beds at Same was completed early in the year and occupied in May. It was not possible however to post a medical officer to this unit and it remained under the charge of a medical assistant.

177. At Lushoto hospital a number of minor improvements were effected, and during the year work commenced on a new ward which was the gift of a local resident. This ward is the first step in a plan for progressively replacing the old and unsatisfactory existing buildings.

178. The Pangani hospital with 26 beds is an unsatisfactory unit; the buildings being to a design unsuitable for use as a hospital. In 1957 demand for hospital accommodation in this district was not sufficiently great to cause embarrassment, but the need for replacement of this hospital in due course must be borne in mind.

Lake Province

179. In this province there are hospitals in the charge of registered or licensed practitioners at Mwanza, Shinyanga, Maswa, Ukerewe, Musoma, Tarime, Bukoba, Biharamulo and Geita.

180. Mwanza hospital with 220 beds is the largest and busiest in the province. Although at times during the year pressure on beds was severe and there was a measure of over-crowding this was only temporary, and the hospital appeared to be more capable of meeting demands. This was attributed to the posting of a surgeon which has resulted in reduction of the waiting time for many operations and improved the turnover of patients. It is also probable that some relief was afforded by the growing popularity of the hospital on Ukerewe island and the posting of a medical officer for the first time to Geita. The numbers of out-patients

Health Education Lecture, Muhimbile Clinic, Dar es Salaam

Another lecture in the Arnautoglu Community Centre, Dar es Salaam

and in-patients rose slightly during the year and there was a 10 per cent rise in the number of confinements; the figure of 701 being reached. Ante-natal and child welfare clinic attendances also showed an increase. No new buildings were completed during the year although a start was made in the provision of additional staff quarters.

181. At Shinyanga hospital a number of minor improvements to buildings were effected, and when the year closed work had commenced on repairing the general sanitation of the institution. The performance of the hospital showed an improvement during the year and the recently provided maternity unit functioned very satisfactorily.

182. Maswa hospital, a very old and scattered collection of buildings containing 30 beds had perforce to continue in operation throughout the year as the new 60-bed hospital which was commenced in 1956 made little progress. For a considerable period work stopped completely owing to the bankruptcy of the contractor, and it was only towards the end of the year that building was recommenced by the Public Works Department. It is unlikely that this new hospital will be ready for occupation until the latter part of 1958.

183. The Ukerewe hospital completed its first full year of work. From the beginning of 1957 out-patient attendances were satisfactory but in-patients were slow to make use of the new facilities. In the latter part of the year, however, there was great development of this side of the work and at the year's end the hospital was working to full capacity and had gained great popularity in the district. As an indication of the development of the work at the hospital during the year it may be mentioned that in the first six months fewer than 100 major surgical operations were performed, whereas in the second six months, with all the wards in the hospital full, over 350 operations were performed. The district medical officer considers that the institution has now reached its maximum working capacity as far as beds available will permit, and there is a considerable waiting list for admissions.

184. Bukoba hospital records considerable increase in out-patients and in-patients although these were dealt with without embarrassment. Maintenance of the buildings during the year was good and redecoration was carried out. A new two-roomed nurses quarter was provided and all hospital buildings were by the end of the year being wired for electricity which it is expected will be supplied in the town in 1958.

185. Biharamulo hospital worked satisfactorily although one male ward had to be closed late in the year owing to the dangerous state of one of the walls. A considerable amount of cleaning up and improvement of old buildings was carried out and additional hospital equipment was provided.

186. The general staff shortage necessitated the withdrawal of the doctor from Tarime towards the end of the year and the small hospital was left in the care of a medical assistant. The institution, which is really more of the nature of a dispensary, is not nearly sufficient to meet local demands, and considerable pressure was exerted by the people for extension of hospital facilities there. Consideration was being given to this as the year closed.

187. As the new hospital at Geita appeared to be making very good progress, a medical officer was posted to this station in August, but he was still unable to occupy the new institution at the end of the year. The buildings were all complete but as they fell far short of standards and specifications, they could not be taken over, and the medical officer had to work with very restricted facilities in the old dispensary building.

Western Province

188. In this province there are hospitals under the charge of registered or licensed practitioners at Tabora, Kigoma, Nzega, Kahama, Kibondo and Sumbawanga.

189. Tabora hospital, by far the largest and busiest Government institution in the province, functioned with 216 beds and continued to be very busy throughout the year. The difficulties arising from water shortage to which reference was made in the previous report were fully overcome and for the first time in its history the hospital had an unlimited water supply. The distribution system was completely relaid and a new storage tank with

a capacity of three days supply for the hospital was erected. Consequent on the increased water supply, problems of drainage arose, but these were effectively met by the construction of a large septic tank. A further important improvement which was undertaken during the year was the erection of a new services block to replace the existing very unsatisfactory kitchen and laundry facilities. Work on this project was well advanced as the year closed.

190. The Nzega hospital was improved by the addition of a maternity unit consisting of two wards, an obstetric theatre and a maternity and child welfare clinic. Pressure on this hospital was severe throughout the whole year but it was able to cope adequately with the situation.

191. Improvements were also undertaken at Kahama hospital and two new 13-bed wards to replace the dilapidated existing buildings were under construction and nearing completion by the end of the year. This work is part of the plan to replace the old and outmoded hospital with modern buildings.

192. The new hospital of 60 beds at Kibondo was virtually completed at the end of the ear, but its occupation was delayed by the necessity to undertake certain site works to prevent erosion. Very good work was carried out in the old hospital under extremely difficult conditions and the performance of the year was considerably better than that of 1956.

193. The most important development at Kigoma hospital was the installation of a small X-ray machine which proved a considerable boon not only to Kigoma but also to other centres such as Kasulu and Kibondo.

194. At Sumbawanga work continued slowly on the new hospital. Nevertheless, an additional 13-bed ward was completed, as was also the administration and out-patients' block. Those parts of the institution already completed were full for most of the year and the amount of surgical work showed a substantial increase.

(C) Special Hospitals

Tuberculosis Hospital, Kibongoto

195. As in past years this hospital was the only one in the territory exclusively devoted to the treatment of tuberculosis. During the year the official bed state was raised to 304 by increasing without over-crowding the number of beds in each ward. Close to the tuberculosis hospital, and supervised from it, is a small institution erected by the Chagga Council which provides a maternity ward of 12 beds and a male general ward of 10 beds.

196. As mentioned in the previous report, by reason of participation in the chemo-therapeutic trials organised by the Medical Research Council and also to cope with the numbers of persons arriving at the institution unannounced, certain temporary accommodation had been provided. This consisted of unsatisfactory lean-to shelters, unfloored but with corrugated iron roofs, which were in no way satisfactory or in keeping with the excellent facilities of the main hospital. As a result of the increase in bed strength in the hospital itself it was possible in 1957 to demolish all but one of these temporary shelters and with the decentralisation of activities to other district hospitals which was organised during the year Kigongoto hospital should now be able to meet the demands placed upon it without resor. to this unsatisfactory expedient.

197. The average daily number of in-patients throughout the year was 330. The number of admissions was 1,032 and the total number of cases treated in hospital was 1,375 as compared with the corresponding figures of 1,272 and 1,556 for the previous year. The number of patients discharged cured but to be kept under observation was 360. A further 122 were discharged to be treated or kept under observation at other hospitals, and 566 patients were discharged under the controlled home treatment scheme. There were 39 deaths in hospital which was by a considerable margin the lowest number of deaths on record. The majority of the deaths occurred within the first month of admission among in-patients with very advanced disease.

198. The duration of treatment was governed entirely by the radiological and clinical picture, but as a general rule no case received less than 9 months continuous chemotherapy unless there was complete resolution at an earlier stage.

199. Artificial pneumothorax and pneumoperitoneum were used extensively, and the not insignificant amount of chest surgery which was also performed included 58 extraplural pneumolysis. Many of these latter cases were referred to Kibongoto for operation from other district hospitals. Results of this operation were good and a mortality rate of 3·5 per cent recorded. It was claimed that approximately 90 per cent of cases could be expected to show sputum conversion to negative following the operation.

200. As in the past the great majority of the patients treated in the sanatorium were drawn from the Northern and Tanga Provinces, but there were admissions from many other parts of the territory. There were, however, less of these in view of the development, albeit small, of facilities for the treatment of this disease, particularly in the Tanga and Southern Provinces, and the better utilisation of facilities at such hospitals as Mbulu.

201. Tuberculosis out-patient clinics continued to be held each week at Moshi in not entirely suitable accommodation at the district hospital. Late in the year, however, work commenced on the conversion of an existing Government building in Moshi to serve as a tuberculosis clinic. On completion, the new unit will be self-contained and the assessment of home treatment cases will be carried out there each week. This too will relieve the parent hospital, as in the past it was the practice for home treatment cases to be transported to the hospital and to remain there for several days while investigations were undertaken. This, of course, increased the pressure on the hospital beds and tended to cause considerable dislocation of hospital routine.

202. Throughout the year the policy of the Kibongoto hospital administration has been to develop interest in the problem of tuberculosis among the Chiefs and community leaders in the districts mainly served. Various meetings were held with such persons and visits to the hospital were organised during which treatment methods were demonstrated and the home treatment scheme explained in detail. There was evidence of the success of these meetings and visits in the willing co-operation of the Chiefs and leaders.

203. The medical officer in charge of Kibongoto hospital, as far as his duties there permitted, functioned as provincial tuberculosis officer in the Northern and Tanga Provinces. He was able to make several visits to Tanga and certain district hospitals to advise district medical officers on treatment and disposal of tuberculosis cases. The home treatment scheme which was developed in the Kilimanjaro and Pare areas made good progress. All new cases of tuberculosis from this area were admitted to hospital for a month's intensive treatment. Thereafter they were discharged to home treatment, attending weekly at the nearest dispensary where a routine examination and issue of further medicines was made. The scheme is carefully controlled through tuberculosis home visitors who ensure attendances of patients and ascertain by means of the urine ferric-chloride test for P.A.S. whether they are taking the prescribed medicines. The patients return every three months to Kibongoto hospital for re-assessment. The scheme had by the end of the year achieved a considerable success and the results observed after six months show a high rate of cure. The opinion has been expressed by the medical officer in charge that the results in a carefully controlled scheme such as this appear to approach those obtained from treating patients entirely in hospital. The number of patients being treated under this scheme at the end of the year was 566.

204. A similar organisation was built up gradually during the year in the Arusha and Mount Meru areas. The main centre of the scheme was at Arusha hospital and dispensaries were organised at West Meru and Nkoaranga. During the latter months of the year this organisation developed rapidly and as the year closed 85 persons were being dealt with under the controlled treatment plan.

205. The medical officer in charge of Kibongoto also co-operated extensively with the district medical officer, Mbulu, in an endeavour to deal with the very heavy incidence of this infection in the Mbulu District. Here considerable work was undertaken and there was a marked extension of treatment both in hospital and in the people's homes.

Mirembe Hospital, Dodoma

206. This remains the only institution in the territory specifically designed and built for the care and treatment of the mentally sick, and as can be expected, considerable difficulty was experienced in finding accommodation for all those requiring it. The new female ward started in 1956 was opened during the year and the institution now has a total of 618 beds. Over the past few years it has been the practice to add additional accommodation each year to meet the growing demand, but a stage was reached when kitchen and dining room facilities became insufficient, and also the hospital drainage broke down under the increased population. Thus no further wards were provided in 1957, and available funds were devoted to improving these facilities. This policy will be followed to completion before any further accommodation for patients is added.

207. For the first time in twelve years there was a decrease in the number of patients remaining in hospital. At the end of 1957 the number was 582 as compared with 591 at the end of 1956. This decrease, small though it was, was achieved by the discharge early in the year of over 100 chronic patients to the care of their relatives. In spite of this evacuation no permanent reduction in the total number of patients was obtained and the number gradually increased from 512 in March to 582 at the end of December. Discharges during 1956 numbered 303 as compared with 210 in the previous year. There was also a slight decrease in the number of admissions, 361 patients coming into hospital as compared with 370 in 1956.

208. The number of deaths was the highest on record for the hospital and reached 62 compared with 45 in the previous year. This figure of 62 deaths is just over 10 per cent of the total number of patients in hospital and still compares favourably with the rate in the United Kingdom. No particular disease can be indicated to account for the increase in the number of deaths, but it is noteworthy that 11 cases arrived moribund and died of inanition and there were 7 cases of senile dementia.

209. The general physical health of the patients was good and there were no outbreaks of infectious or fly-borne diseases, although the breakdown in the drainage of the hospital gave rise to fears that such might occur.

210. Electro-convulsive treatment remained the most important form of therapy used during the year. The number of patients so treated was 245 and of these 80 made a good recovery and 63 were improved. The results obtained from the use of tranquilising drugs in African patients have been encouraging and all the modern ataraxic drugs were given a trial. Largactil appeared to be the drug of choice in the excited African and this treatment combined with E.C.T. often gave excellent results. A controlled experiment with mysoline in the treatment of epileptics was carried out and the results of this will be published in due course. No insulin shock therapy was used during the year as this treatment in the past had proved disappointing.

211. At times during the year staffing difficulties arose, but it was possible to post an additional medical officer to the institution which relieved the pressure on the medical superintendent who had been until then the only medically qualified person available. As the year closed the position with regard to senior nursing staff was satisfactory.

212. The Specialist Psychiatrist, who is also medical superintendent of Mirembe hospital, was in addition responsible for the medical care of the inmates of the Broadmoor institution operated by the Prisons Department. During the year there was considerable discussion regarding the future management of this institution and it was finally decided that from July 1958 the Medical Department would assume responsibility for it. It will then be

administered as an annexe to the Mirembe hospital, and staffing will ultimately be entirely by Medical Department personnel. The institution, the construction of which resembles a prison rather than a hospital, has no special facilities for the treatment of mental illness. Such special treatment continued to be provided at Mirembe hospital.

213. Discharge of patients from Broadmoor is under the control of an Advisory Board on Special Category Lunatics. Five patients were seen by this board during the year and two of these obtained conditional discharge. There were 66 new admissions during the year. Occupational therapy was extensively made use of and proved most valuable. Nearly every patient was employed on some kind of productive work. The number of cases treated by electro convulsive therapy was 11, and in 8 of these there was improvement. The physical health of the Broadmoor patients was good and there were no epidemics of fly-borne disease in the institution. It was, however, to a small extent affected by the influenza epidemic and 26 patients were treated for this malady.

Leprosaria

214. Nineteen leprosaria were in operation during the year, five being administered by the department and the remainder either by missions or native authorities. These latter all received financial assistance from Government not only for maintenance of patients but also for specific drugs.

215. The Government leprosarium at Makete worked very satisfactorily and there was considerable development of out-patient services based upon the institution. No additions were made to accommodation and the average number of residents was just short of 700. At the end of the year the number of residents was 671 there having been 261 admissions and 183 discharges. The total number of patients treated, including those attending out-patient clinics, reached a figure of approximately 1,300. An analysis of the records kept at the clinics and in the leprosarium indicated that a total of more than 1,000 cases in the Rungwe district have come under treatment during the past few years.

216. This institution was used as a training centre for rural medical aids from other provinces and it is planned to extend this activity to meet the development of out-patient treatment services throughout the territory.

217. At the second important Government institution, Chazi, work continued steadily on the new hospital and administrative buildings. Two 13-bed wards, the out-patient/ administrative block and ancillary buildings were completed and work was well advanced on the new operating theatre. Considerable time and effort was devoted to clearing and preparing well laid out grounds, making roads, and planting large numbers of trees, and a great deal of development work was put into the agricultural land of the settlement. It was possible to purchase from farm profits of the previous year a Ferguson tractor, plough, harrow seeder and other implements, and the value of these purchases readily became evident with the bringing into cultivation of some 70 acres of land. This institution has, throughout the year been under the charge of a BELRA worker and his wife, the former being mainly concerned with the construction work and the farming and the latter with medical treatment. Now that the institution is taking shape it is planned to strengthen the staff and to post to it a medical officer.

218. Early in the year there was considerable discussion of the organisation of leprosaria in the Central Province. Two existing leprosaria operated by separate mission groups are sited on land which has been worked out and their re-establishment on more fertile sites with more adequate water supply became essential. It had been hoped that it would be possible for the two missions concerned to combine and establish a single provincial leprosarium, and it is to be regretted that in the event this arrangement was not found to be possible. As a result one of the missions concerned commenced work on a new leprosarium at Iambi to replace their institution at Mkalama and the other missionary society continued to explore possibilities of obtaining land to replace the unsuitable, ineffective existing institution at Makutapora.

219. There was some reduction in the number of in-patients cared for in leprosaria as a result of the policy, to which reference was made in the previous report, of endeavouring to retain these institutions as far as possible for infectious cases and to treat non-infectious cases as out-patients. However, the total number of in-patients resident in leprosaria at the end of the year was 4,963 and it is estimated that the number of persons receiving out-patient treatment for this infection was over 18,000.

XIII.—RURAL MEDICAL SERVICES

220. Dispensary services in rural areas are the responsibility of local native authorities which are entirely responsible for their finance, management and development. The supervision of the work in these units however, is the responsibility of the Government staff of the district hospital, and district medical officers throughout the year gave as much time as their other duties would permit to this important duty.

221. The total number of dispensaries in rural areas at the end of the year was 586, an increase of 21 over the previous year. These dispensaries vary in scope and magnitude from simple units providing dressings and very limited range of medicaments, to more elaborate structures having in-patient facilities of a simple nature. They are staffed by two types of personnel and are graded A and B accordingly. The grade A dispensaries are under the charge of rural medical aids who have had two years' training at the Government training centre in Mwanza. The grade B dispensaries are staffed by tribal dressers, men of lower educational standard who have merely had a short period of practical training at the district hospital before being posted to the dispensary. Equipment standards of the dispensaries are fixed to accord with the training and knowledge of the man in charge.

222. The number of grade A dispensaries is relatively small and it has not been possible for the training centre at Mwanza to turn out sufficient rural medical aids to keep pace with the opening of new dispensaries. Thus the general standard of the dispensary service remains at a relatively low level, and improvement cannot be expected as long as the present pattern continues. Nevertheless the majority of native authorities have accepted very readily the principle of establishing in their areas health centres as envisaged in the Five Year Development Plan. Work was carried out at a number of existing dispensaries during the year to provide the additional buildings necessary to enable them to function as health centres, and in several instances completely new construction was undertaken. As a result of this it is anticipated with some confidence that the target figure for the establishment of 10 health centres in 1958 will be achieved. Such units, staffed by medical assistants, health nurses, assistant health inspectors, and subordinate staff will undoubtedly lead to a gradually improved rural medical service which will more effectively link up with the district hospitals.

223. A number of missionary organisations throughout the territory provided dispensary services in addition to those of the native authorities, and played a very important part in the medical work of the territory. Many of these mission dispensaries are elaborate institutions under the charge of trained expatriate personnel and they often provide a service of a considerably higher standard than is general in the native authority units.

XIV—SPECIALIST SERVICES

(A) Medical and Radiological

224. There are two Medical Specialists and they are both stationed in Dar es Salaam. Both were on leave during the year, but for short periods, and there was minimum interference with their work.

225. The Senior Medical Specialist continued to carry out the duties of Radiologist as well as his own, but he was relieved of much of this work in the latter part of the year by a medical officer who had obtained the diploma in radiology. It was not possible for extensive touring to be carried out because of the demands on the specialists' time in Dar es Salaam, but short visits were made to various centres for consultations and one long safari was made

to the Lake Province. The Senior Medical Specialist co-operated in the Medical Research Council's therapy trials in tuberculosis and a number of beds at the Infectious Diseases Hospital, Dar es Salaam, were allocated to this purpose. The most interesting result of this trial so far is the apparent effectiveness of the combination of thiosemicarbazone with isoniazid.

226. As far as pressure of routine work permitted special attention was paid to anaemias which are an important cause of admission to hospital in Dar es Salaam. In the majority of these cases there is iron deficiency which is due to hook-worm, and these cases respond slowly to oral iron. Some, however, show a deficient iron binding capacity which is probably associated with nutritional deficiency and abnormal plasma protein. In this type of case the administration of iron proved of no avail, but they were found eventually to respond to general dietary supplements. Acute anaemia of pregnancy due to iron or vitamin B.12 deficiency was also encountered and considered to be associated with early toxaemia of pregnancy. Amongst children a severe normo-chromic anaemia in which the haemoglobin rate fell to as little as 20 per cent was commonly encountered. There is no evidence so far of any abnormal haemoglobin or haemolysis and it is planned further to investigate this condition.

227. Attention was also paid to the question of abdominal pain in Africans and a series of cases was investigated thoroughly, radiologically and otherwise. A number of definite duodenal ulcers were found together with the late complications of pyloric stenosis and also carcinoma both in the stomach and oesophagus. A high incidence of what the specialists called "African duodenal jejunitis" was recorded with radiological appearances suggesting a coarse mucosal pattern and a very high acid response associated with pains tending to be of duodenal type.

(B) Surgical

228. As in the past years the department had available two surgical specialists, both of whom were stationed in Dar es Salaam. Two surgical teams functioned throughout the year and a very considerable amount of work was accomplished. As usual the surgery of hernias and hydroceles formed the bulk of the work and there appeared to be a decline in serious industrial and road accidents as compared with previous years.

229. One of the surgical specialists continued to concentrate on orthopaedic work as far as the limited bed accommodation would permit. There is undoubtedly a great deal of scope for this aspect of surgery, but substantial development cannot be expected with present facilities. This surgical specialist visited the Western and Lake Provinces in January and saw over 200 cases of poliomyelitis. He advised local medical officers on the follow-up treatment of many of these cases.

230. A considerable amount of gynaecological surgery was undertaken and a total of 379 operations where performed. Vesico-vaginal fistula continued to be common and to cause difficulties, but it was observed that the number of cures effected increased.

231. A medical officer holding special qualifications in ear, nose and throat work being available for most of the year, clinics in this speciality were held. A total of 117 operations were performed.

232. The blood transfusion service operated by the Tanganyika Branch of the British Red Cross Society functioned well and fully met the demands of the Dar es Salaam hospitals.

233. Officers with special surgical experience and, in some cases, with higher surgical qualifications, were available at provincial hospitals throughout the year and a very satisfactory standard of work was achieved. Reference of cases to Dar es Salaam for surgical treatment has, as a result, diminished substantially.

(C) Ophthalmic

234. Throughout the year there continued to be only one ophthalmic specialist available, and in consequence it was only possible to provide very limited ophthalmic services outside of Dar es Salaam. Nevertheless, the ophthalmic specialist was able to pay visits to the

Southern Highlands, Northern, Tanga and Eastern Provinces without serious interruption to the work in Dar es Salaam. This work showed a steady increase and a total of 185 ophthalmic operations were carried out at the Sewa Haji hospital as compared with 168 in 1956. Cataract extraction became very popular and there were insufficient beds devoted to this speciality to meet demands.

(D) Dental

235. The dental services throughout the territory are administered by the senior dental surgeon whose headquarters are in Dar es Salaam.

236. The year was one of considerable difficulties, and staff shortages led to serious curtailment of services. Two dental officers were on leave during the year and it was necessary during their absence to close the dental units in Tanga and Mbeya. It was also not possible to carry out the customary safari programme to the Central and Southern Provinces and considerable inconvenience was occasioned as a result. In addition more people had to seek treatment from the main unit in Dar es Salaam which thus carried a very heavy burden. As the year closed the establishment of dental officers was still two below strength and no recruits were in sight.

237. The dental unit at the Princess Margaret Hospital functioned well throughout the year and the training of six African dental assistants was completed, the first output of this new training venture. They will be posted early in 1958 to hospitals at provincial headquarters and will commence providing dental services to, in particular, the African population.

(E) Mental

238. As already mentioned, the specialist psychiatrist is also Medical Superintendent of Mirembe Mental Hospital. His services, however, were made more readily available on a territorial basis by the posting of an additonal medical officer to that institution. The specialist psychiatrist held periodic out-patient sessions in Dar es Salaam and Tanga and also supervised the institution for chronic cases operated by the Lutheran Mission at Lutindi.

(F) Anaesthetics

239. Anaesthetic services are the responsibility of the specialist anaesthetist who is stationed in Dar es Salaam. Several new drugs were obtained for trial and hypertensive drugs were used experimentally with considerable caution on various categories of patients. They appeared to enable the more desperate cases to withstand severe operations far better than the unprotected patients. Bleeding time was slightly prolonged but blood loss, especially in thoracic surgery, was found to be considerably decreased.

(G) Tuberculosis

240. The post of tuberculosis specialist was not filled after the departure in March of the substantive holder on leave pending retirement. The senior medical specialist, however, fulfilled the function of tuberculosis specialist for the remainder of the year and was adviser to Headquarters.

(H) Sleeping Sickness

241. The sleeping sickness specialist, as in the past, was stationed at Tabora, provincial heaquarters of the Western Province, where the highest incidence of sleeping sickness occurs. His function is purely advisory as anti-sleeping sickness and anti-tsetse activities are carried out by the Provincial Administration and the Tsetse Survey and Reclamation Department. As in previous years a great deal of his time was devoted to travelling in the affected areas of the territory, advising officers of the Provincial Administration and the Medical Department on sleeping sickness problems. At Tabora hospital he has a small number of beds and throughout the year was engaged in therapeutic trials of new preparations, particularly in late cases of the disease.

(I) Child Health

242. The post of child health specialist unfortunately remained unfilled throughout the whole of 1957 as financial stringency necessitated its freezing.

PART FOUR—ANCILLARY AND RELATED SERVICES

XV.—LABORATORY SERVICES

243. The laboratory services are under the charge of the senior pathologist who is stationed in Dar es Salaam. He has an establishment of three pathologists, three laboratory technologists, six senior laboratory assistants and forty-five laboratory assistants. Pathologist staff, however, was short on the ground. One officer proceeded on leave pending resignation in January and another officer was absent from duty during the whole year owing to ill-health. In the middle of the year, however, a measure of relief was obtained by the local engagement of a private practitioner on a part-time basis to undertake forensic pathology duties. Again, one laboratory technologist was absent on vacation leave for five months and there were vacancies in the establishment of senior laboratory assistants and laboratory assistants, there being available at the end of the year five and thirty-six respectively in these cadres.

244. The organisation of the laboratory services consists of the Headquarters Laboratory in Dar es Salaam, eight "B" laboratories at provincial headquarters and "C" laboratories at all smaller hospitals. The headquarters laboratory provides a fairly complete clinical pathology consultant and technical service for Dar es Salaam together with reference facilities for up-country hospitals and laboratories. The "B" laboratories provide facilities for routine microscopy, haematology, serology (Widal and Khan tests) and limited biochemistry. The two largest of these provincial laboratories, namely those at Tanga and Moshi were re-designated "A" laboratories during the year as their facilities and accommodation are sufficient to permit of more extensive procedures being carried out. It is planned that the work of these laboratories will include some cultural bacteriology in addition to the normal facilities provided in "B" laboratories. The "C" laboratories are small clinical side rooms in the smaller hospitals and they are not directly administered by the senior pathologist as are the other units in the organisation. They are the responsibility of the medical officer in charge of the hospital. Throughout the service routine work is carried out by the laboratory assistants, locally trained men whose standard is very good indeed. The senior laboratory assistants are in charge of the more important provincial laboratories and also of sections in the headquarters organisation.

245. An important function of the Headquarters laboratory staff is the training of laboratory and medical assistants, and this work is primarily the responsibility of the laboratory technologists.

246. The burden of work thrown on the laboratory services throughout the territory became severe during the year, and it was considered that the work presenting was more in fact than the staff could accurately cope with. This was especially so in the case of specimens sent for parasitological examination and it was felt that a large number of unnecessary specimens were being submitted. The senior pathologist represented this point of view at the departmental conference in October and it was generally agreed that every effort should be made in the interests of efficiency to reduce the numbers of specimens submitted to the various laboratory units.

247. The general bacteriology carried out in Dar es Salaam included all clinical bacteriology and during the year 4,108 specimens were accepted for full cultural examination. An inoculation chamber for tuberculosis work was installed, complete with an extractor fan and ultra-violet light strips. No loop flaming is now done outside this chamber. A very considerable amount of tuberculosis bacteriology was carried out and about 25 per cent of the material came from the Medical Research Council therapy trial patients at Dar es Salaam, Kibongoto and Kongwa. Sensitivity tests to isoniazid, PAS and streptomycin were put up on 499 strains, of which 178 were in respect of the Medical Research Council trials.

248. During the year the clinical virology laboratory was reconstructed and strip lighting and air-conditioning installed. It now provides safety precautions up to accepted standards. Variola virus isolations continued to prove very useful in the differential diagnosis of alastrum and chickenpox. Herpes virus was isolated from one clinical case of suspected herpes.

249. As mentioned elsewhere cases of clinical influenza began to appear in Dar es Salaam in mid-July and no difficulty was experienced in isolating causal virus from throat garglings of two out of four early cases. Infected amniotic fluid and later allantoic fluid were freeze-dried and submitted to the World Influenza Centre, London. This institute reported as follows:—"Your strain A/Tanganyika 435/57 (E 31/34) is a characteristic strain of Asian influenza virus. It is serologically very similar to A/Singapore 1/57 virus".

250. General serology continued as in previous years, The number of sera examined in Dar es Salaam was 664, of which 88 were presumptive typhoid, 25 presumptive brucellosis and 15 presumptive typhus. The Paul Burnell test was performed on 25 sera, all of which were negative. In the serological testing for syphilis, three antigens in the form of the Khan, PPR and Wasserman tests were used on all the sera following the practice of the last three years. The latter two tests were used quantitatively and were used for cerebro-spinal fluids. The use of three antigens and of quantitative tests has proved a distinct advantage in the diagnosis of treponemal infections.

251. Full facilities were provided in Dar es Salaam for blood bank and transfusion and pregnancy serology, and here also Rhesus grouping, antibody detection and titration for up-country stations were carried out. The number of persons in which ABO grouping was carried out was 2,365 and a similar number of Rhesus groupings were done.

252. The number of haematological specimens dealt with was 21,725, a performance approximating to that of the previous year. During the year an investigation into the haemoglobin levels of new-born African infants in Dar es Salaam showed that levels are below those found normally in the United Kingdom. This work will be continued in the coming year.

253. During the greater part of 1957 routine biochemistry in Dar es Salaam was greatly hampered by structural repairs and alterations. In spite of this, however, the number of tests performed increased by nearly 25 per cent and the range of tests was wider than in the past. A great deal of biochemical work relating to liver function and iron metabolism was carried out in connection with investigation of the anaemias commonly encountered among Africans.

254. Exclusive of post-mortem material, 1,826 biopsies were examined histologically during the year. This represents an increase of 15 per cent over the previous year and almost double the amount of material handled in 1954.

255. The amount of medical legal work continued to increase. Exhibits were submitted by the Police from all parts of the country, and during the year 814 exhibits from 264 different cases were examined, an increase of 25 per cent on the previous year's work. The majority of these were examined for bloodstains, namely 531, but there were 107 smears for spermatozoa and 140 bones for identification. Tissues and viscera from 29 cases were examined histologically and during the year 84 post-mortem examinations were performed at the request of the Police or the Coroner.

XVI.—TRAINING OF PERSONNEL

256. The training programme as set forth in the Five Year Development Plan was pursued throughout the year and made considerable progress. Although the new training school in Dar es Salaam was not yet available and will not be until perhaps the middle of 1959, the completion of two additional male and two additional female hostels enabled the planned concentration of training in Dar es Salaam, particularly of nursing students, to make good progress. As was mentioned in the previous report, the male nurses training school at Kongwa was closed at the end of 1956 and the new intake accepted in Dar es

Salaam at the beginning of 1957. As the year closed a similar arrangement was made regarding the Mweka nurses training centre. It was closed in December and arrangements made for its transfer to the Princess Margaret Hospital and Training Centre, Dar es Salaam, in January, 1958.

257. An increase in the intake of medical assistant students was achieved, and the first group of four women medical assistants completed the first year of training. The table below sets forth the numbers of the various categories of trainees in Government and Mission training centres who passed the final qualifying examinations in 1957.

	Government Training Centres	Mission Training Centres
Medical Assistants ...	10	10
Dental Assistants ...	6	–
Laboratory Assistants ...	4	–
Pharmaceutical Assistants ...	4	–
Hospital Stewards Assistants ...	1	–
Malaria Assistants	2	–
Rural Medical Aids ...	20	10
Assistant Health Inspectors ...	16	–
Health Orderlies	18	–
Health Nurses	19	–
Nurses	69	80
Midwives	29	32
Totals ...	198	132

258. In Tanga arrangements were being made during the year for the nurses training school which worked in conjunction with the Mweka school, to be changed to a midwives training centre. Additional classroom and dormitory accommodation was provided and with the completion of the Galanos block early in 1958 with its maternity section, this training will be launched.

259. Two further training centres for village midwives were opened at Iringa and Arusha and this type of training is now a well established departmental activity.

260. The Nurses and Midwives Council established under the Nurses and Midwives Registration Ordinance 1952 continued to be responsible for all matters relating to the training of nurses and midwives and also for the maintenance of the register of qualified persons. The Council met on two occasions during the year. The Matron-in-Chief of the department is Registrar to the Council.

261. Mission training centres continued as in the previous year, but one additional nurses training school was established. These centres mainly concentrated on the training of nurses and midwives but one mission continued to train medical assistants and another rural medical aids. In the Southern Province plans were laid by the Benedictine Mission to initiate training of rural medical aids at Mnero. The contribution of missions to training is indeed a valuable one and this was recognised by Government by the payment of a total of £14,195 in training grants to these institutions.

XVII.—MISSION MEDICAL SERVICES

262. As in previous years the contribution made by the voluntary agencies to the territory's medical services was a very important and substantial one. There are few districts in the territory in which government medical facilities are not supplemented materially by the work of the missions, and in fact in certain of these districts the contribution of the missions is greater than that of Government. Full recognition of the part being played by the voluntary agencies was made by Government and this was reflected in the very large grants-in-aid paid to the Missions. Government grants have steadily increased over the past ten years and have enabled the mission services to be greatly extended and improved. The grants paid in the year under review are shown in the following table, compared with

those of the previous two years:—

	1954/55	1955/56	1956/57
	£	£	£
Staff Grants	61,974	67,341	71,335
Training Grants	7,604	12,400	14,195
Hospital Additional Grants ...	2,250	21,272	20,597
	71,828	101,013	106,127

263. At most mission hospitals steady improvements and in some cases additions were carried out. More trained staff became available and standards continued slowly to rise. At Ifakara in Ulanga District a very fine new hospital was partially occupied and has greatly added to the medical facilities of the area.

264. The American Southern Baptist Convention, as was mentioned in the previous report, established itself at Mbeya and continued throughout the year with the preliminary arrangements for the erection of a 100-bed tuberculosis hospital. It is hoped that this will soon be in operation.

265. Maternity and child health services again were an important mission activity which received considerable support from Native Authorities throughout the territory. Training of village midwives was continued by several mission organisations.

266. The Lutheran Mission at Lutindi maintained its institution for the care of chronic mental cases in spite of staff difficulties. The Specialist Psychiatrist visited it regularly and financial assistance was again provided by Government. Substantial sums were also paid by Government to missions for the maintenance of patients in leprosaria and also for drugs for their treatment.

XVIII.—RESEARCH

267. Reference has already been made to the investigations being carried out at the Headquarters Laboratory in Dar es Salaam, and also to the Medical Research Council therapy trials being undertaken at Kibongoto Sanatorium, Kongwa hospital and the Infectious Diseases Hospital, Dar es Salaam.

268. At Ukerewe an important investigation into the intestinal manifestations of bilharzia was carried out by the District Medical Officer who prepared a paper on the matter to be read at the Scientific Conference in Nairobi in January, 1958.

269. At Mwanza the East Africa Medical Research Institute, and at Amani, the East Africa Malaria Institute continued to be the two most important organisations devoted to medical research. Interesting and useful work was carried out and is recorded in the reports of the East Africa High Commission.

270. At Tabora, the sleeping sickness specialist continued his therapeutic trials with particular reference to the treatment of late stages of sleeping sickness.

271. The Malaria Unit once again was able to carry out useful investigations. A number of these are listed below:

(i) Larvicides on Fishponds—Korogwe
Analysis of the effect of standard mosquito larvicides upon edible fish.

(ii) Culicine Control Methods—Tabora
An investigation of the effects of various insecticides on culicines, both larvae and adults, to determine the most useful and economical methods of control of these mosquitoes.

(iii) Pyrimethamine Resistance—Mkuzi
The follow-up of resistance by the subtertian malaria parasite to pyrimethamine (Daraprim), following the termination of regular prophylactic use of the drug in the field.

(iv) Chemoprophylaxis in Premune Schoolchidren—Muheza
Investigation amongst premunized schoolchildren to determine the uses of standard anti-malarial drugs.

(v) Trials of New Anti-Malarial Drugs—Muheza.

(vi) Bilharzia and Mollusc survey; and observations on Bulinus species—Tanga Province.

(vii) Observations on Rodents and Fleas—Amani, Pare Mountains and Morogoro.

In addition important investigations were carried out by the entomologists of the unit on bilharzia and plague. In the former case investigation was made of snail breeding cycles, cercarial infection rates, schistosomeurinary infection rates and studies of three species of Bulinus snails from Tanga Province. In the latter case surveys of wild and domestic rats and their ectoparasites were carried out in various parts of the territory and a general flea index was established.

XIX.—CENTRAL MEDICAL STORE

272. The Central Medical Store is sited in Dar es Salaam and is under the charge of a chief storekeeper. This very important unit has been completely reorganised over the past two years or so, and during the year under review steady progress was made in the consolidation of this re-organisation. The store reached a level of efficiency not achieved in the past, and this was reflected in the favourable comments received from all districts where the supply position throughout the year was reported to have been satisfactory. In general, goods are despatched from the central store within seven days of receipt of indent and delays have been reduced to a minimum. There were, of course, occasions during the year when weather conditions interrupted transport arrangements and stores were delayed en route to indenting units. Nevertheless, it can be said that a satisfactory service was provided.

273. The value and number of the indents handled rose steeply and in particular the value of goods supplied to Native Authorities and to Missions showed a marked increase. It would thus appear that the improved service provided is attracting greater custom.

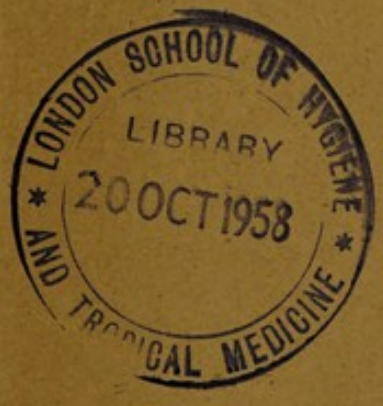
274. The pharmaceutical laboratory continued to work throughout the year, but to a lower tempo than in the past. It was, in fact, gradually run down as stocks of raw materials were used up, and plans were made for its elimination as a separate entity in 1958. The laboratory can no longer compete with the manufacturers overseas except in a very limited range of items and, although the machinery will be maintained, it is planned that only a small amount of manufacturing will be done in future as a function of the Central Medical Store.

275. The Repairs and Recoveries Section, although as usual overwhelmed with work, achieved a very great deal and made available to the hospital services much equipment which, apparently damaged beyond repair, was made completely serviceable again. Four apprentices from the Trade School at Ifunda worked throughout the year and showed great promise. Their presence has added substantially to the output of the section and they are acquiring very important skill. The pressure on the section was also to some extent relieved by the Radiological Technician undertaking all work of an electrical nature in addition to his primary duty of maintenance of X-ray machines.

TANGANYIKA

Annual Report
of the
Medical Department
1957

Volume II
(Statistics)



1958
PRINTED BY THE GOVERNMENT PRINTER
DAR ES SALAAM
Price: Shs. 4/-

Annual Report of the Medical Department for the year 1957

Volume II

(Statistics)

CONTENTS

PART ONE—STAFF

PART TWO—TRAINING

PART THREE—HOSPITAL AND DISPENSARY SERVICES

PART FOUR—MORBIDITY AND MORTALITY

PART I

Staff

TABLE I

ESTABLISHMENT

(as at 31st December, 1957)

Headquarters and Administration

1	Director of Medical Services.
1	Deputy Director of Medical Services.
3	Assistant Directors of Medical Services.
1	Matron-in-Chief.
1	Secretary.
1	Senior Treasury Accountants.
5	Women Administrative Assistants.
1	Treasury Accountant.
1	Accounts Officer.
5	Stenographers.
4	Temporary Stenographers.
9	Temporary Executive Assistants.
1	Office Supervisor.
3	Office Assistants.
2	Accounts Assistants.
217	Clerks.
17	Telephone Operators.

Stores and Pharmaceutical Services

1	Chief Pharmacist.
5	Pharmacists.
3	Pharmaceutical Assistants.
1	Chief Storekeeper.
1	Stores Officer.
1	Instrument Mechanic.
5	Junior Assistant Instrument Mechanics.
11	Stores Assistants.
1	Office Supervisor.
2	Accounts Assistants.
17	Clerks.
1	Head Packer.
1	Security Assistant.

Hospital and Health Services

2	Senior Specialists.
6	Specialists.
9	Senior Medical Officers.
78	Special Grade Medical Officers and Medical Officers.
24	Assistant Surgeons.

12 Medical Officers (East Africa).
12 Senior Sub-Assistant Surgeons.
20 Sub-Assistant Surgeons.
9 Matrons.
134 Nursing Sisters.
6 Sister Housekeepers and Housekeepers.
4 Physiotherapists.
1 Male Charge Nurse.
6 Assistant Nursing Sisters/Assistant Charge Nurses.
9 Senior Staff Nurses/Senior Staff Midwives.
429 Nurses/Midwives.
1 Chief Medical Assistant.
20 Senior Medical Assistants.
170 Medical Assistants.
5 Senior Compounders.
3 Senior Pharmaceutical Assistants.
25 Pharmaceutical Assistants.
2 Senior Hospital Secretaries.
3 Stewards.
2 Senior Hospital Stewards' Assistants.
15 Hospital Stewards' Assistants.
1 Hospital Welfare Officer.
6 Hospital Welfare Assistants.
15 Motor Drivers.
1 Chief Health Inspector.
32 Health Inspectors.
1 Senior Health Visitor.
20 Health Visitors.
5 Senior Assistant Health Inspectors.
60 Assistant Health Inspectors.
53 Sanitary Inspectors.
1 Senior Staff Health Nurse.
57 Health Nurses.
15 Ambulance Men.
12 Temporary Housekeeping Assistants.
1 Assistant Caterer.
1 Junior Draughting Assistant.
1 Laundry Foreman.

DENTAL

1 Senior Dental Surgeon.
7 Special Grade Dental Surgeons and Dental Surgeons.
1 Senior Dental Mechanic.
1 Dental Mechanic.
6 Dental Assistants.
2 Junior Dental Assistants.

Child Health

1 Specialist.

Leprosy

2 Medical Officers.
2 Leprosy Nurses.

Malaria

2 Entomologists.
5 Malaria Field Officers.
5 Senior Malaria Assistants
41 Malaria Assistants.
19 Junior Malaria Assistants.

Mental

1 Specialist.
1 Medical Officer.
2 Chief Male Nurses.
4 Charge Nurses.
6 Nursing Sisters.
2 Medical Assistants.
1 Assistant Charge Nurse.
1 Senior Staff Nurse.
2 Nurses.

Tuberculosis

1 Specialist.
2 Medical Officers.
1 Steward.
2 Nursing Sisters.
3 Medical Assistants.

Sleeping Sickness

1 Specialist.
3 Junior Sleeping Sickness Assistants
22 Sleeping Sickness Patrolmen.

Laboratory Services

1 Senior Pathologist.
3 Pathologists.
3 Laboratory Technologists.
6 Senior Laboratory Assistants.
45 Laboratory Assistants.
41 Junior Laboratory Assistants.

X-Ray

1 Radiological Technician.
3 Radiographers.
1 Senior Radiographic Assistant.
4 Radiographic Assistants.
4 Junior Radiographic Assistants.
1 X-ray Mechanic.

Medical Education

1 Senior Medical Officer.
1 Medical Officer.
3 Medical Instructors.
4 Wardens.
1 Senior Sister Tutor.
7 Sister Tutors and Midwifery Tutor.
1 Senior Medical Assistant.
3 Medical Assistants.

Health Education

1 Senior Medical Officer.
1 Health Visitor.
1 Health Inspector.

TABLE II

MORBIDITY AND MORTALITY—EUROPEAN OFFICIALS

Total number of European officials in Service (excluding High Commission) Staff List—1st January, 1958	2,896
Deaths	8
Invalidings	6
Number admitted to hospitals	555
Number sick in quarters	116
Total number of days off duty	4,794
Average days off duty per patient	7·13

Causes of Morbidity and Mortality:

(a) *Mortality:*

Disease:

1.	Intestinal obstruction	1
2.	Coronary disease	1
3.	Cerebral haemorrhage	1
4.	Carcinoma of the breast	1
5.	Carcinoma of pancreas	2
6.	Melanoma	1
7.	Fatal injuries sustained by car accident	1
		8

(b) *Morbidity* (diseases diagnosed):

Infective and Parasitic Diseases	134
Neoplasms	9
Allergic, Endocrine System, Metabolic and Nutritional Diseases, and Diseases of the Blood-forming Organs	8
Mental, Psychoneurotic and Personality Disorders	3
Diseases of the Nervous System and Sense Organs	14
Diseases of the Circulatory System	25
Diseases of the Respiratory System	169
Diseases of the Digestive System	81
Diseases of the Genito-Urinary System	25
Diseases of the Skin and Cellular Tissues and Diseases of the Bones and Organs of Movement	55
Congenital Malformation	1
Symptoms, Senility and Ill-defined conditions	111
Accidents, Poisoning and Violence	36
Total ...	671

(c) *Principal causes of morbidity:*

Influenza	78
Acute upper respiratory infections	72
Malaria (all forms)	59
Pyrexia of unknown origin	53
Diseases of the digestive system	30
Infections of skin and subcutaneous tissue	25
Ill-defined causes of morbidity	25
Dysentery (all forms)	24
Diseases of the circulatory system	17

PART II

Training

TABLE III

MEDICAL TRAINING

Approved Medical and Nursing Training Centres

Category of Student	Training Centre	Training Authority	Length of Course (Years)	Total Students under training during 1957	Students Qualified 1957	Total Qualified in each category in 1957
Medical Assistants	Dar es Salaam	Government	3	52	10	20
	Bumbuli	Lutheran Mission	3	30	10	
Laboratory Assistants	Dar es Salaam	Government	3	13	4	4
Pharmaceutical Assistants	Dar es Salaam	Government	3	13	4	4
Dental Assistants	Dar es Salaam	Government	3	18	6	6
Hospital Steward Assistants	Dar es Salaam	Government	2	3	1	1
Rural Medical Aids	Mwanza, Morogoro, Dodoma, Mbeya, Iringa, Bukoba, and Lindi	Government	2	80	20	30
	Minaki	U.M.C.A.	2	28	10	
Assistant Health Inspectors	Kongwa	Government	3	62	16	16
Health Orderlies	Kongwa	Government	1	21	18	18
Health Nurses	Tukuyu	Government	2	31	19	19
Malaria Assistants	Amani	Government	2	14	2	2
Nurses	Dar es Salaam (male and female)	Government	3	268	69	149
	Mweka (male and female)	Government	3			
	Tanga (female)	Government	3			
	Mvumi (male and female)	C.M.S.	3	68	20	
	Peramiho (male and female)	Benedictine	3	38	3	
	Mnero (male)	Benedictine	3	37	10	
	Magila (female)	U.M.C.A.	3	36	14	
	Lulindi (female)	U.M.C.A.	3	50	7	
	Sumve (female)	White Fathers	3	41	9	
	Kiomboi (male and female)	Augustana Lutheran	3	48	13	
	Ndolage (female)	Church of Sweden Mission	3	20	4	
	Kolandoto (male and female)	Africa Inland Mission	3			
Midwives	Dar es Salaam	Government	1	26	29	61
	Mvumi	C.M.S.	1 or 2	17	15	
	Ndanda	Benedictine	1	8	3	
	Magila	U.M.C.A.	1 or 2	7	3	
	Sumve	White Fathers	1 or 2	9	11	
Village Midwives	Kagunguli	White Fathers	2	4	–	23
	Korogwe	U.M.C.A.	2	4	2	
	Ndareda	Medical Missionaries of Mary	2	5	4	
	Newala	U.M.C.A.	2	12	5	
	Liuli	U.M.C.A.	2	2	–	
	Tabora	Government	1	6	5	
	Nzega	Government	1	9	7	
	Iringa	Government	1	5	–	
	Arusha	Government	1	5	–	

PART III

Hospital and Dispensary Services

TABLE IV

GOVERNMENT HOSPITALS AND DISPENSARIES

as at 31st December, 1957

Province	Hospital	No. of Wards	Number and Category of Beds						Grade of Accommodation
			General	Obstetrics	Tuberculosis	Infectious	Mental	Total	
			I.—General Hospitals						
Dar es Salaam	Ocean Road	32	54	15	–	6	–	75	I
	Sewa Haji	12	288	–	4	–	–	292	III and IV
Central Province	Dodoma	21	142	16	–	12	–	170	I, II, III and IV
	Kongwa	6	70	5	60	–	–	135	I, II and IV
	Mpwapwa	5	32	–	–	–	–	32	IV
	Kondoa	10	36	3	–	7	–	46	IV
	Singida	5	60	–	–	–	–	60	II and IV
Eastert Province	Morogoro	18	178	12	–	6	–	196	I and IV
	Bagamoyo	5	32	4	–	3	–	39	III and IV
	Kilosa	8	75	13	–	12	–	100	II, III and IV
	Mahenge	10	78	–	–	–	–	78	III and IV
	Utete	3	33	–	–	–	–	33	IV
Lake Province	Mwanza	19	184	17	7	12	–	220	I, II and IV
	Bukoba	8	134	12	8	4	–	158	II, III and IV
	Musoma	17	84	13	4	–	–	101	I, II and IV
	Shinyanga	6	64	13	–	4	–	81	II and IV
	Biharamulo	5	35	4	–	3	–	42	IV
	Ukerewe	5	52	–	–	8	–	60	IV
	Maswa	4	24	4	–	2	–	30	IV
Northern Province	Arusha	20	142	14	–	8	–	164	I, II, III and IV
	Moshi	14	230	12	–	12	–	254	I, II, III and IV
	Monduli	4	46	–	–	–	–	46	IV
	Mbulu	5	59	7	38	–	–	104	IV
	Oldeani	8	38	5	22	–	–	65	II and IV

TABLE IV—(*contd.*)

GOVERNMENT HOSPITALS AND DISPENSARIES

as at 31st December, 1957

Province	Hospital	No. of Wards	Number and Category of Beds						Grade of Accommodation
			General	Obstetrics	Tuberculosis	Infectious	Mental	Total	
Southern Province	Mtwara	6	58	1	–	–	–	59	I, II and IV
	Lindi	7	86	13	–	4	–	103	I, III and IV
	Nachingwea	15	48	6	45	4	–	103	I, II, III and IV
	Songea	6	49	6	–	1	–	56	IV
	Kilwa	5	30	–	–	6	–	36	IV
	Tunduru	2	24	–	–	–	–	24	IV
	Newala	4	32	–	–	8	–	40	III and IV
Southern Highlands Province ...	Mbeya	18	92	11	–	6	–	109	I, II and IV
	Iringa	15	92	15	–	4	–	111	I II and IV
	Tukuyu	7	73	6	3	3	–	85	IV
	Chunya	10	33	2	–	6	–	41	II and IV
	Njombe	5	32	–	–	4	–	36	I and IV
Tanga Province	Tanga	22	311	7	11	–	–	329	I, II and IV
	Korogwe	7	75	6	35	–	–	116	I, II and IV
	Lushoto	10	41	4	–	2	–	47	I and IV
	Muheza	7	59	–	39	–	–	98	IV
	Pangani	9	18	6	–	2	–	26	IV
Western Province	Tabora	17	193	17	–	6	–	216	I, III and IV
	Kigoma	6	56	6	–	–	–	62	II and IV
	Nzega	8	56	40	–	–	–	96	II, III and IV
	Kibondo	3	32	–	–	–	–	32	IV
	Sumbawanga	4	39	–	–	4	–	43	IV
	Kahama	5	46	15	–	–	–	61	IV
TOTAL—GENERAL HOSPITALS ...	47	448	3,745	330	276	159	–	4,510	

TABLE IV—(*contd.*)

GOVERNMENT HOSPITALS AND DISPENSARIES

as at 31st December, 1957

Province	Hospital	No. of Wards	Number and Category of Beds						Grade of Accommodation
			General	Obstetrics	Tuberculosis	Infectious	Mental	Total	
	II.—Special Hospitals								
Dar es Salaam	Infectious Diseases ...	26	–	–	105	56	–	161	III and IV
	Muhimbili Maternity ...	6	–	40	–	–	–	40	IV
	Mental holding unit ...	10	–	–	–	–	10	10	IV
Central Province	Mirembe Mental ...	–	–	–	–	–	618	618	I, II and IV
Northern Province...	Kibongoto Tuberculosis	7	22	–	304	–	–	326	III and IV
Tanga Province	Tanga Infectious Diseases	9	–	–	36	–	–	36	IV
	Tanga Maternity ...	3	–	15	–	–	–	15	IV
Total—Special Hospitals ...	7	61	22	55	445	56	628	1,206	

TABLE IV—(*contd.*)

GOVERNMENT HOSPITALS AND DISPENSARIES

as at 31st December, 1957

Province	Hospital	No. of Wards	Number and Category of Beds						Grade of Accommodation
			General	Obstetrics	Tuberculosis	Infectious	Mental	Total	
			III.—DISPENSARIES						
Central Province	Manyoni	4	18	2	–	2	–	22	IV
	Itigi	3	10	–	–	–	–	10	IV
Eastern Province	Kingolwira	3	46	–	–	–	–	46	IV
	Mafia	4	16	1	1	–	–	18	IV
Lake Province	Ngara	2	22	–	1	1	–	24	IV
	Ngudu	2	16	–	–	–	–	16	IV
	Tarime	1	10	–	–	–	–	10	IV
Northern Province...	Magugu	2	10	–	–	–	–	10	IV
Southern Province	Liwale	4	22	–	–	–	–	22	IV
	Mikindani	1	6	–	–	–	–	6	IV
Southern Highlands Province ...	Malangali	4	23	–	–	–	–	23	IV
	Kyela	3	20	–	–	2	–	22	IV
	Makete	4	34	2	–	–	–	36	IV
Tanga Province	Handeni	6	24	–	–	–	–	24	IV
	Same	3	26	–	–	4	–	30	IV
	Usangi	5	36	4	–	4	–	44	IV
Western Province	Mpanda	2	10	–	–	–	–	10	IV
	Kakonko...	2	16	–	–	–	–	16	IV
	Kassanda	1	4	–	–	–	–	4	IV
	Kasanga	1	6	–	–	–	–	6	IV
	Kasulu	3	22	–	–	–	–	22	IV
TOTAL DISPENSARIES ...	21	60	397	9	2	13	–	421	
TERRITORIAL TOTAL ...	75	569	4,164	394	723	228	628	6,137	

TABLE V

IN-PATIENTS—GOVERNMENT GENERAL AND SPECIAL HOSPITALS AND DISPENSARIES

Figures refer to the twelve-month period 1st December, 1956—30th November, 1957

	Number admitted during the year							Number discharged during the year							Deaths							Daily average in hospital						
	European		Asian		African		Total	European		Asian		African		Total	European		Asian		African		Total	European		Asian		African		Total
	M	F	M	F	M	F		M	F	M	F	M	F		M	F	M	F	M	F		M	F	M	F	M	F	
I. GENERAL HOSPITALS																													
Dar es Salaam	442	532	458	347	4,980	4,256	11,015	440	536	436	344	4,842	4,158	10,756	4	2	20	4	158	67	255	10·33	10·99	10·65	6·31	185·22	100·14	323·52
Central Province ...	129	144	63	78	7,054	5,035	12,503	128	143	64	76	6,815	4,859	12,085	2	1	1	3	236	185	428	1·77	2·42	2·02	1·33	227·00	152·85	387·39
Eastern Province ...	76	86	80	70	5,818	3,303	9,433	72	91	79	66	5,632	3,198	9,138	1	1	1	2	184	109	298	0·25	0·25	0·29	0·31	99·16	58·16	158·42
Lake Province	103	115	102	181	9,267	8,686	18,454	104	115	97	180	8,869	8,366	17,731	–	1	1	5	4	395	275	680	3·09	3·01	3·12	5·42	329·64	199·97	544·25
Northern Province ...	242	257	130	132	10,675	8,110	19,546	239	264	120	127	10,333	7,828	18,911	5	5	12	3	340	285	650	5·30	5·11	1·59	1·39	304·41	210·18	527·98
Southern Province ...	50	43	40	51	4,779	2,883	7,846	51	43	37	49	4,633	2,763	7,576	–	–	2	2	154	89	247	0·47	0·67	0·28	0·37	217·68	115·47	334·94
S. Highlands Province ...	167	124	94	96	5,084	5,408	10,973	59	131	90	96	4,984	5,265	10,625	6	1	4	–	129	141	281	4·34	4·57	3·02	1·05	163·06	152·80	328·84
Tanga Province	175	235	211	274	8,474	3,996	13,365	174	237	200	268	8,161	3,854	12,894	5	2	18	12	329	156	522	4·61	4·24	8·18	5·62	355·56	119·94	498·16
Western Province ...	74	97	108	132	6,849	6,483	13,743	70	97	104	129	6,481	6,160	13,041	–	–	3	2	325	273	603	1·47	2·17	1·81	2·21	223·40	185·10	416·16
TOTAL GENERAL HOSPITALS ...	1,458	1,633	1,286	1,361	62,980	48,160	116,878	1,337	1,657	1,227	1,335	60,750	46,451	112,757	23	13	66	32	2,250	1,580	3,964	31·60	33·34	30·96	24·01	2,105·13	1,294·61	3,519·66
II. SPECIAL HOSPITALS																													
DAR ES SALAAM																													
Infectious Diseases Hospital	–	–	8	1	293	88	390	–	–	6	1	275	86	368	–	–	2	–	13	6	21	–	–	1·02	1·00	86·02	24·02	112·06
Mental Holding Unit ...	–	–	–	–	44	8	52	–	–	–	–	17	–	17	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CENTRAL PROVINCE																													
Mirembe Mental Hospital	6	1	26	8	222	98	361	3	–	22	9	206	68	308	–	–	–	–	34	28	62	2·13	8·12	27·26	7·47	349·09	161·05	555·57
NORTHERN PROVINCE																													
Kibongoto Tuberculosis Hospital	–	–	50	11	609	362	1,032	–	–	49	6	557	413	1,025	–	–	7	–	23	9	39	–	–	15·00	4·00	180·00	113·00	312·00
TANGA PROVINCE																													
Infectious Diseases Hospital	–	–	3	–	101	–	104	–	–	1	–	99	–	100	–	–	1	–	2	–	3	–	–	0·99	–	33·64	–	34·63
TOTAL SPECIAL HOSPITALS ...	6	1	87	20	1,269	556	1,939	3	–	78	16	1,154	567	1,818	–	–	10	–	72	43	125	2·13	8·12	44·45	12·47	648·93	298·70	1,014·80
III. DISPENSARIES																													
Central Province ...	–	–	–	–	678	407	1,085	–	–	–	–	648	395	1,043	–	–	–	–	14	16	30	–	–	–	–	14·21	9·05	23·26
Eastern Province ...	–	–	–	–	717	216	933	–	–	–	–	669	158	827	–	–	–	–	12	5	17	–	–	–	–	9·39	4·45	13·84
Lake Province	–	–	–	–	761	713	1,474	–	–	–	–	739	590	1,329	–	–	–	–	26	23	49	–	–	–	–	15·71	16·46	32·17
Northern Province ...	–	–	–	–	424	135	559	–	–	–	–	415	135	550	–	–	–	–	9	2	11	–	–	–	–	7·05	3·00	10·50
Southern Province ...	–	–	–	–	117	82	199	–	–	–	–	115	79	194	–	–	–	–	2	1	4	–	–	–	–	6·24	5·09	11·33
S. Highlands Province ...	–	–	–	–	1,304	1,370	2,674	–	–	–	–	1,270	1,338	2,608	–	–	–	–	37	41	78	–	–	–	–	44·10	30·38	74·48
Tanga Province	–	–	–	–	2,337	2,251	4,588	–	–	–	–	2,267	2,187	4,454	–	–	–	–	66	51	117	–	–	–	–	45·37	47·05	92·42
Western Province ...	–	–	–	–	1,124	813	1,937	–	–	–	–	1,063	766	1,829	–	–	–	–	41	34	75	–	–	–	–	30·26	21·51	51·77
TOTAL DISPENSARIES ...	–	–	–	–	7,462	5,987	13,449	–	–	–	–	7,186	5,748	12,934	–	–	–	–	208	173	381	–	–	–	–	172·78	136·99	309·77
TERRITORIAL TOTALS ...	1,464	1,634	1,373	1,381	71,711	54,703	132,266	1,340	1,657	1,305	1,351	69,090	52,766	127,509	23	13	76	32	2,530	1,796	4,470	33·73	41·46	75·41	36·48	2,926·84	1,730·30	4,844·23

TABLE VI

OUT-PATIENTS—GOVERNMENT GENERAL AND SPECIAL HOSPITALS AND DISPENSARIES

Figures refer to the twelve-month period 1st December, 1956—30th November, 1957

I. GENERAL HOSPITALS

Province	Total Attendances							Total New Cases						
	Male			Female			Total	Male			Female			Total
	European	Asian	African	European	Asian	African		European	Asian	African	European	Asian	African	
Dar es Salaam ...	2,393	7,253	221,280	2,258	752	103,465	337,401	1,833	2,371	65,363	1,768	238	32,657	104,230
Central Province ...	1,183	2,229	132,580	1,032	778	97,033	234,835	585	1,191	49,402	491	483	40,908	93,060
Eastern Province ...	861	1,337	124,797	755	606	74,031	202,387	617	826	52,744	573	389	35,272	90,421
Lake Province ...	1,721	1,823	223,966	1,469	1,188	158,301	388,468	1,393	1,614	115,652	1,192	1,032	74,914	195,797
Northern Province ...	2,063	497	196,194	1,854	275	114,098	314,981	1,505	616	84,990	1,412	372	51,788	140,683
Southern Province ...	1,880	1,690	156,409	1,307	812	93,730	255,828	875	951	72,672	573	447	42,476	117,994
S. Highlands Province	1,267	1,177	101,057	1,114	649	84,041	189,305	941	755	58,524	783	534	45,519	107,056
Tanga Province ...	2,140	2,733	178,452	2,240	1,710	114,194	301,469	1,140	1,495	76,649	1,028	740	39,719	120,771
Western Province ..	718	3,749	184,449	583	2,259	121,665	313,423	491	2,057	88,106	367	1,248	55,909	148,178
TOTAL—GENERAL HOSPITALS ...	14,226	22,488	1,519,184	12,612	9,029	960,558	2,538,097	9,380	11,876	664,102	8,187	5,483	419,162	1,118,1 9

II. SPECIAL HOSPITALS

Hospital	Total Attendances							Total New Cases						
	Male			Female			Total	Male			Female			Total
	European	Asian	African	European	Asian	African		European	Asian	African	European	Asian	African	
DAR ES SALAAM														
Infectious Diseases Hospital	–	50	7,086	–	17	2,894	10,047	–	6	594	–	4	299	903
NORTHERN PROVINCE														
Tuberculosis Hospital, Kibongoto	20	201	34,101	16	124	20,761	55,223	5	41	16,236	4	26	11,905	28,217
TANGA PROVINCE														
Infectious Diseases Hospital	18	276	4,277	–	49	3,096	7,716	3	12	259	–	3	178	455
CENTRAL PROVINCE														
Mirembe Mental Hospital	14	4	2	9	9	–	38	4	1	1	3	4	–	13
TOTAL SPECIAL HSPITALS	52	531	45,466	25	199	26,751	73,024	12	60	17,090	7	37	12,382	29,588

TABLE VI—(*contd.*)

OUT-PATIENTS—GOVERNMENT GENERAL AND SPECIAL HOSPITALS AND DISPENSARIES

Figures refer to the twelve-month period 1st December, 1956—30th November, 1957

III. DISPENSARIES

Location of Hospital, etc. (by Districts)	Total Attendances							Total New Cases						
	Male			Female			Total	Male			Female			Total
	European	Asian	African	European	Asian	African		European	Asian	African	European	Asian	African	
Central Province ...	13	114	28,037	2	56	20,218	48,440	10	100	13,625	1	48	7,075	20,859
Eastern Province ...	–	327	90,340	–	220	44,409	135,296	–	155	19,110	–	114	11,128	30,507
Lake Province ...	91	37	71,228	69	21	53,081	124,527	72	18	31,703	26	7	16,590	48,416
Northern Province ...	15	30	11,300	6	10	7,012	18,373	12	20	5,650	4	6	3,506	9,198
Southern Province ...	–	15	31,866	–	2	21,547	53,430	–	13	11,190	–	2	8,024	19,229
S. Highlands Province	–	–	69,454	–	–	61,313	130,767	–	–	35,802	–	–	33,307	69,109
Tanga Province ...	17	177	51,732	6	114	55,718	107,764	10	164	29,985	15	80	33,084	63,338
Western Province ...	–	–	619,814	–	–	251,913	871,727	–	–	300,030	–	–	119,032	419,062
TOTAL—DISPENSARIES	136	700	973,771	83	423	515,211	1,490,324	104	470	447,095	46	257	231,746	679,718
TERRITORIAL—TOTAL	14,414	23,719	2,538,421	12,720	9,651	1,502,520	4,101,445	9,496	12,406	1,128,287	8,240	5,777	663,290	1,827,496

TABLE VII

MATERNITY AND CHILD HEALTH SERVICES

	Ante-Natal Clinics		Child Health Clinics		Total confinements attended	Deliveries without complications	Deliveries with complications	Abortions	Live Births	Still Births	Maternal Deaths	Infant Deaths
	First attendances	Total attendances	First attendances	Total attendances								
A. Government Services												
Central Province	1,580	6,148	1,258	9,975	750	557	193	102	701	50	26	20
Eastern Province	1,119	4,070	–	–	892	734	158	45	826	66	13	20
Lake Province	7,246	27,661	2,006	17,743	3,264	2,656	608	250	3,116	204	44	56
Northern Province	2,704	6,765	1,493	10,114	1,812	1,455	357	217	1,746	111	25	61
Southern Province	1,062	5,596	1,381	12,658	508	439	69	67	493	20	2	4
S. Highlands Province ...	1,543	8,010	920	11,775	1,115	886	229	114	1,038	113	26	10
Tanga Province	3,301	16,681	2,330	40,228	1,422	1,202	220	84	1,350	114	17	46
Western Province	6,675	16,564	2,498	5,233	2,813	2,275	538	236	2,712	139	18	78
Dar es Salaam	3,719	23,577	2,629	31,465	2,309	1,435	874	63	2,255	104	17	59
Total Government Services	28,949	115,072	14,515	139,191	14,885	11,639	3,246	1,178	14,237	921	188	354
B. Mission Services												
Central Province	3,705	13,076	1,389	8,978	3,257	2,736	521	218	3,183	102	15	83
Eastern Province	2,225	4,575	3,458	7,241	889	833	56	60	849	44	5	22
Lake Province	8,539	15,059	935	2,490	2,660	1,988	672	223	2,546	170	30	67
Northern Province	3,517	8,393	1,432	2,988	1,263	938	325	133	1,230	40	5	34
Southern Province	5,521	25,333	6,218	43,619	2,769	2,289	480	239	2,752	159	24	108
S. Highlands Province ...	1,186	3,192	947	7,787	867	705	162	80	839	41	4	31
Tanga Province	6,528	30,642	5,494	18,455	1,862	1,442	420	101	1,787	101	7	68
Western Province	4,677	16,513	3,443	30,253	2,306	1,976	330	103	2,309	96	6	62
Total Mission Services ...	35,898	116,783	23,316	121,811	15,873	12,907	2,966	1,157	15,495	753	96	475
C. Native Authority Services												
Central Province	5,419	12,501	4,251	9,023	4,118	3,788	330	162	4,039	99	12	52
Eastern Province	–	–	–	–	–	–	–	–	–	–	–	–
Lake Province	4,081	13,374	3,521	18,626	768	703	65	15	744	29	5	7
Northern Province	5,234	10,269	4,320	6,830	3,039	2,930	109	108	3,044	74	–	66
Southern Province (a) ...	566	2,812	(b)	441	391	283	22	24	286	22	5	4
S. Highlands Province ...	3,346	9,914	2,734	9,922	–	–	–	–	–	–	–	–
Tanga Province	7,890	18,985	311	432	893	854	39	10	863	34	5	7
Western Province	2,979	7,624	1,486	3,474	1,152	1,087	65	25	1,114	47	1	18
Total Native Authority Services...	29,515	75,479	16,623	48,748	10,361	9,645	630	344	10,090	305	28	154
Territorial Totals ...	94,362	307,334	54,454 (a)	309,750	41,119	34,191	6,842	2,679	39,822	1,979	312	983

(a) Figures incomplete.

(b) Figures not available.

TABLE VIII A.

LEPROSARIA (IN-PATIENTS)—GOVERNMENT, NATIVE AUTHORITY AND MISSION

	No. of Leprosaria	Leprosy patients admitted during 1957	Discharged	Absconded	Births	Deaths from Leprosy	Deaths from other causes	Leprosy Patients Resident at 30th November, 1957				Clinical Classification active cases			Cases on Sulphone Therapy				Burnt out Cases		Non-Leprous Persons Resident 30th Nov. 1957		
								Men	Women	Children	Total	Lepromatous	Tuberculold	Mixed	Men	Women	Children	Total	Without deformity	With deformity	Adults	Children	Total
Central Province	2	141	104	80	19	4	13	287	156	97	540	352	163	25	235	156	97	488	–	–	7	24	31
Eastern Province	3	163	147	22	12	7	4	276	104	370	450	270	147	33	261	78	53	392	–	9	–	11	11
Lake Province ...	2	245	187	129	28	7	7	555	372	55	1,282	362	889	31	553	369	353	1,275	–	2	82	125	207
Northern Province	1	39	38	–	1	–	–	19	11	–	30	20	9	1	19	5	–	24	–	4	–	–	–
Southern Province	5	472	363	143	51	14	22	802	408	147	1,357	479	591	97	685	320	118	1,123	63	29	78	117	195
S. Highlands Province ...	1	261	183	70	19	–	7	358	222	91	671	278	294	99	270	287	99	656	–	–	16	19	35
Tanga Province	2	67	64	2	2	–	4	123	26	17	166	56	42	18	110	24	16	150	1	14	1	8	9
Western Province	2	96	54	10	10	2	3	240	122	86	448	269	168	11	239	119	86	444	–	7	–	10	10
Dar es Salaam ...	1	23	31	–	–	–	1	14	3	2	19	7	7	4	13	3	2	18	–	1	–	–	–
Totals ...	19	1,507	1,171	456	142	34	61	2,674	1,424	865	4,963	2,093	2,310	319	2,385	1,361	824	4,570	64	66	184	314	498

TABLE VIII B

LEPROSY OUT-PATIENT CLINICS

(Including Government, Native Authority and Mission Clinics)

	No. of Out-Patient Clinics	Total cases under treatment during 1957			New cases on Sulphone during 1957			Cases defaulting during 1957			Number discharged cured during 1957		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Central Province	5	233	215	448	106	90	196	27	23	50	6	–	6
Eastern Province	20	1,803	1,358	3,161	1,063	779	1,842	536	417	953	12	17	29
Lake Province (a)	60	1,491	1,098	2,589	585	410	995	237	165	402	43	33	76
Northern Province	1	54	15	69	32	7	39	–	–	–	5	4	9
Southern Province	34	2,940	3,371	6,311	684	758	1,442	380	318	698	225	214	439
Southern Highlands Province ...	12	534	741	1,275	206	282	488	28	26	54	19	30	49
Tanga Province	20	2,575	2,419	4,994	887	895	1,782	(b)	(b)	611	(b)	(b)	436
Western Province	12	487	486	973	487	486	973	28	16	44	–	–	–
Dar es Salaam	1	194	88	282	123	47	170	113	24	137	–	–	–
Totals ...	165	10,311	9,791	20,102	4,173	3,754	7,927	(b)	(b)	2,949	(b)	(b)	1,044

(a) Incomplete figures.

(b) Figurres not available.

TABLE IX

NATIVE AUTHORITY MEDICAL SERVICES

Province	Number of Dispensaries		Staff			Beds if any	New Cases During 1957			Total Attendances During 1957		
	Grade A	Grade B	M.A.	R.M.A.	Tribal Dressers		Male	Female	Total	Male	Female	Total
Central Province ...	7	53	–	7	56	172	208,797	199,896	408,693	354,891	451,748	806,639
Eastern Province ...	23	66	2	24	94	4	251,408	202,345	453,753	623,405	453,777	1,077,182
Lake Province	68	75	1	69	110	475	530,985	574,320	1,105,305	1,170,022	1,104,845	2,274,867
Northern Province ...	21	35	2	21	73	71	231,705	198,296	430,001	428,601	363,314	791,915
Southern Province ...	10	38	2	8	50	32	109,789	88,228	198,017	260,437	210,381	470,818
S. Highlands Province	53	15	–	61	20	–	187,747	198,151	385,898	423,329	447,440	870,769
Tanga Province ...	27	17	2	27	28	40	92,499	84,885	177,384	190,186	163,055	353,241
Western Province ...	20	58	–	23	83	92	264,764	248,700	513,464	599,256	571,232	1,170,488
Totals ...	229	357	9	240	514	886	1,877,694	1,794,821	3,672,515	4,050,127	3,765,792	7,815,919

TABLE X

MISSION MEDICAL SERVICES

Province	Number of Hospitals and Dispensaries	Beds	In-Patients admissions	Out-Patients	
				New Cases	Total Attendances
		I.—General Hospitals with Doctors			
Central	5	352	13,330	44,938	123,275
Eastern	3	223	4,006	53,663	113,091
Lake	9	881	14,318	85,922	216,166
Northern	3	194	4,395	18,497	36,816
Southern	6	744	12,079	55,450	343,614
Southern Highlands	2	169	4,027	14,409	39,158
Tanga	3	320	6,171	12,708	77,531
Western	4	278	3,685	18,922	41,416
Totals. General Hospitals ...	35	3,161	62,011	304,509	991,067
		II.—Dispensaries with over Twenty Beds			
Central	5	150	3,951	17,389	60,192
Eastern	2	76	1,187	28,384	47,137
Lake	1	35	911	11,271	16,906
Northern	4	145	5,152	23,002	72,735
Southern	12	867	15,457	87,585	353,565
Southern Highlands	9	446	10,013	52,543	192,559
Tanga	6	336	4,496	39,963	112,134
Western	5	226	3,481	39,031	121,595
Totals. Dispensaries with over 20 Beds ...	44	2,281	44,648	299,168	976,823
		III.—Other Dispensaries and Clinics			
Central	11	92	2,962	31,922	95,370
Eastern	9	10	133	51,405	104,860
Lake	12	51	244	40,168	102,476
Northern	8	47	1,292	22,740	43,886
Southern	26	171	3,826	69,648	511,495
Southern Highlands	24	60	1,463	117,918	350,508
Tanga	21	112	2,107	41,027	154,950
Western	21	36	1,130	53,887	299,500
Totals. Other Dispensaries and Clinics ...	132	579	13,157	428,715	1,663,045
Territorial Totals ...	211	6,021	119,816	1,032,392	3,630,935

PART IV

Morbidity and Mortality

MORBIDITY AND MORTALITY EXPERIENCE

The morbidity and mortality of each group of diseases listed in accordance with the International Statistical Classification of Diseases and Causes of Death and expressed as a percentage of the total in-patient admissions and out-patient attendances of Government and Mission Hospitals (Tables XI and XII) are set out diagrammatically in Figure I. Figure II shows the morbidity and mortality of certain diseases in Group I (the Infective and Parasitic Diseases) expressed as a percentage of (a) total diseases treated, and (b) the total diseases within the Group.

There was no significant change in the morbidity figures for all diseases during 1957; mortality, however, showed a distinct fall in Group I, Infective and Parasitic Diseases. There was also a slight rise in Group V and VI Mental and Nervous Diseases. Group XI, Complications of Pregnancy, showed a gratifying small fall from the previous year's figures.

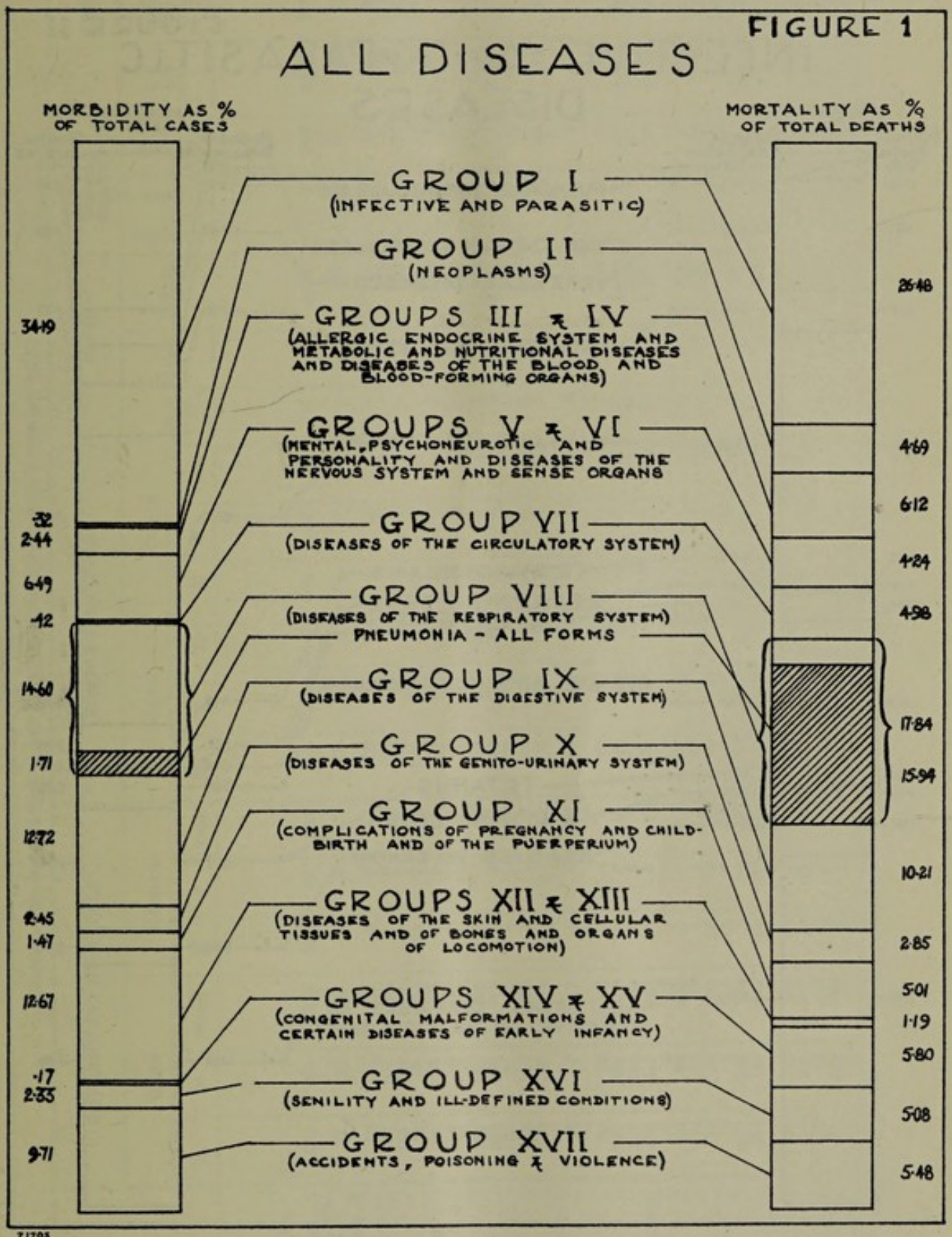
As regards the analysis of Infective and Parasitic Diseases, there was no major change in morbidity except for a slight fall in venereal diseases and yaws.

Mortality within this main group showed a decline for malaria and whooping cough, otherwise there was nothing of significance.

The chief causes of death were Pneumonia (all forms) (937), Malaria (all forms) (435), Tuberculosis (all forms) (290), Gastro-Enteritis (207) and Tetanus (174).

FIGURE 1

ALL DISEASES



21703

FIGURE II

INFECTIVE AND PARASITIC DISEASES

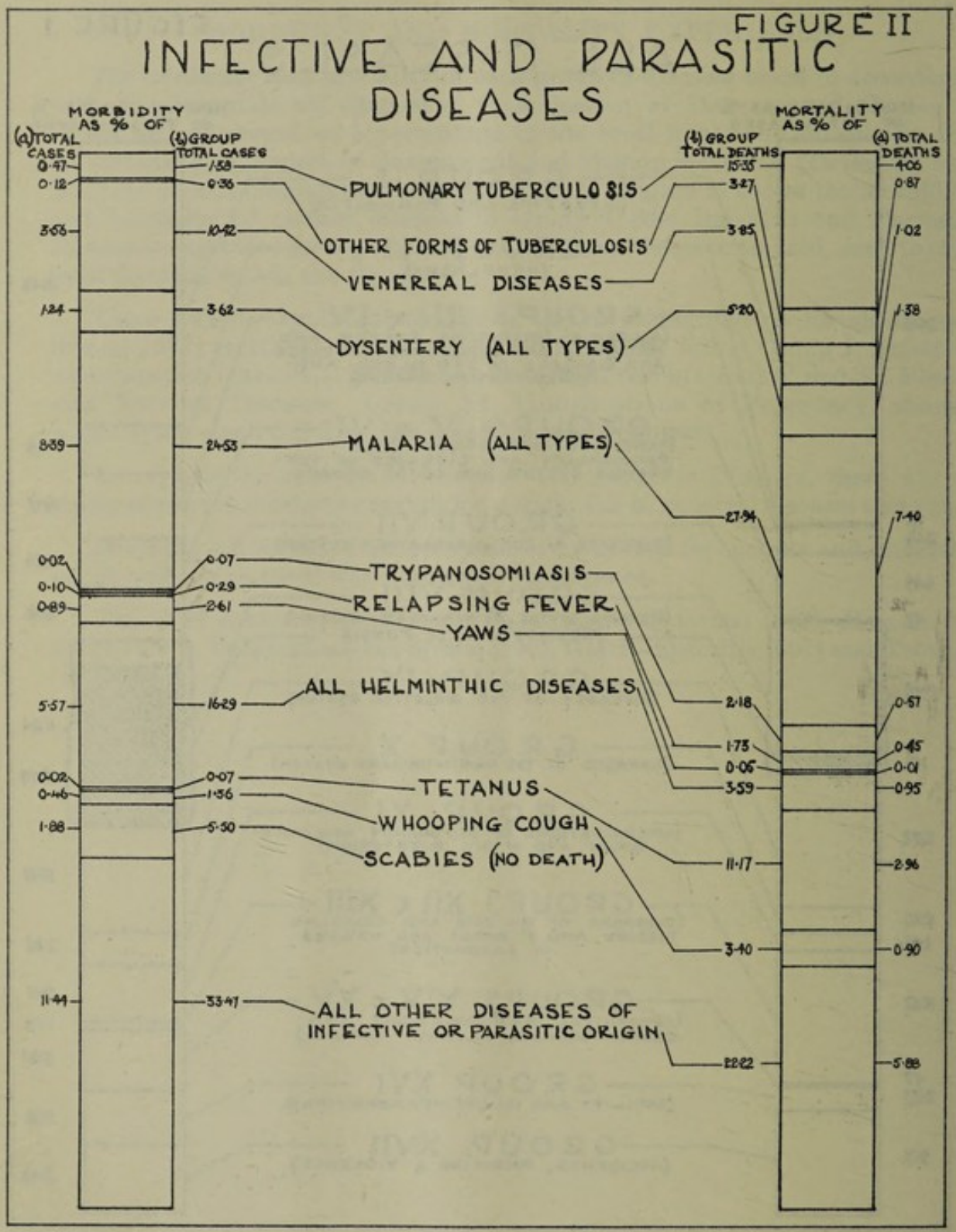


TABLE XI

DISEASES

In-Patients—Government and Mission Hospitals

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS												
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	European	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percentage Morbidity	Percentage Mortality
GROUP I																						
Infective and Parasitic Diseases																						
Tuberculosis of the respiratory system ...	1,985	909	2,894	132	52	184	511	400	911	33	22	55	15	90	3,700	–	7	232	3,805	239	1·811	4·069
Tuberculosis of meninges and central nervous system	28	30	58	6	6	12	12	6	18	2	3	5	–	1	75	–	1	16	76	17	0·036	0·289
Tuberculosis of intestines, peritoneum and mesenteric glands	46	44	90	6	5	11	26	21	47	2	2	4	–	5	132	–	2	13	137	15	0·065	0·255
Tuberculosis of bones and joints	182	101	283	3	3	6	66	26	92	1	1	2	4	6	365	–	–	8	375	8	0·178	0·136
Tuberculosis, all other forms	195	126	321	7	2	9	70	75	145	2	–	2	–	13	453	–	1	10	466	11	0·222	0·187
Congenital syphilis	118	86	204	14	7	21	121	134	255	10	10	20	–	–	459	–	–	41	459	41	0·219	0·698
Early syphilis (Primary and Secondary)	453	233	686	3	1	4	158	312	470	–	–	–	2	–	1,154	–	–	4	1,156	4	0·550	0·068
Tabes dorsalis	13	4	17	–	–	–	1	13	14	–	–	–	–	–	31	–	–	–	31	–	0·015	–
General paralysis of insane	6	2	8	–	–	–	1	5	6	–	–	–	–	–	14	–	–	–	14	–	0·006	–
All other syphilis	150	142	292	1	–	1	118	173	291	1	–	1	1	–	582	–	–	2	583	2	0·278	0·034
(a) Gonorrhoea, genito-urinary	692	383	1,075	4	1	5	1,083	1,788	2,871	1	1	2	3	5	3,938	–	–	7	3,946	7	1·879	0·119
(b) Gonococcal infection of the eye ...	50	37	87	–	–	–	35	39	74	–	–	–	–	–	161	–	–	–	161	–	0·077	–
(c) Other gonococcal infections	248	145	393	1	1	2	23	29	52	–	–	–	1	3	441	–	–	2	445	2	0·212	0·034
Typhoid fever	308	133	441	20	11	31	162	109	271	8	3	11	7	21	684	–	–	42	712	42	0·339	0·715
Paratyphoid fever and other Salmonella infections	10	7	17	1	1	2	4	6	10	–	–	–	4	2	27	–	–	2	27	2	0·013	0·034
Cholera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Brucellosis (undulant fever)	38	16	54	–	–	–	26	20	46	–	–	–	7	–	93	–	–	–	100	–	0·048	–
(a) Bacillary dysentery	521	352	873	12	4	16	286	314	600	8	5	13	27	12	1,434	–	–	29	1,473	29	0·701	0·493
(b) Amoebiasis	391	158	549	7	2	9	265	240	505	3	1	4	38	17	999	–	–	13	1,054	13	0·502	0·221
(c) Other unspecified forms of dysentery	485	240	725	13	3	16	228	238	466	13	10	23	40	16	1,135	–	–	39	1,191	39	0·567	0·663
Scarlet fever...	5	2	7	–	–	–	2	1	3	–	–	–	3	–	7	–	–	–	10	–	0·005	–
Streptococcal sore throat	94	89	183	1	–	1	38	84	122	–	–	–	53	31	221	–	–	1	305	1	0·145	0·017
Erysipelas	14	13	27	1	1	2	13	8	21	–	3	3	8	4	36	–	1	4	48	5	0·023	0·085
Septicaemia and pyaemia	32	22	54	12	10	22	49	35	84	4	3	7	2	2	134	–	–	29	138	29	0·066	0·493
Diphtheria	6	1	7	2	2	4	–	5	5	–	1	1	–	–	12	–	–	5	12	5	0·006	0·085
Whooping cough	257	302	559	7	13	20	492	598	1,090	12	21	33	–	17	1,632	–	–	53	1,649	53	0·785	0·902
Meningococcal infections	257	154	411	79	40	119	105	111	216	18	16	34	4	4	619	1	2	150	627	153	0·299	2·603
Plague	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Leprosy	146	54	200	2	1	3	162	61	223	2	–	2	–	–	423	–	–	5	423	5	0·202	0·085
Tetanus	210	150	360	83	54	137	44	41	85	21	16	37	–	6	439	–	2	172	445	174	0·212	2·960
Anthrax	94	91	185	4	5	9	26	25	51	5	3	8	–	–	236	–	–	17	236	17	0·112	0·289
Acute poliomyelitis	181	103	284	10	6	16	18	18	36	1	3	4	12	4	304	2	–	18	320	20	0·152	0·340
Acute infectious encephalitis	9	5	14	4	1	5	16	14	30	5	2	7	1	1	42	–	1	11	44	12	0·021	0·204

TABLE XI—(*contd.*)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS												
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	European	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percentage Morbidity	Percentage Mortality
Late effects of acute poliomyelitis and acute infectious encephalitis	18	15	33	–	1	1	16	23	39	1	1	2	3	1	68	–	–	3	72	3	0·034	0·051
(a) Variola major	33	18	51	5	2	7	1	2	3	–	–	–	–	–	54	–	–	7	54	7	0·026	0·119
(b) Variola minor	59	39	98	–	1	1	10	27	37	–	–	–	–	–	135	–	–	1	135	1	0·064	0·017
Measles	533	532	1,065	1	2	3	199	270	469	1	–	1	10	11	1,513	–	–	4	1,534	4	0·731	0·068
Yellow fever	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Infectious hepatitis	178	74	252	15	8	23	65	62	127	5	3	8	34	7	338	–	1	30	379	31	0·181	0·527
Rabies	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
(a) Louse-borne epidemic typhus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
(b) Flea-borne endemic typhus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
(c) Tick-borne typhus	12	2	14	–	–	–	1	–	1	–	–	–	10	–	5	–	–	–	15	–	0·007	–
(d) Mite-borne typhus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
(e) Typhus unspecified, and other rickettsial diseases	9	3	12	–	–	–	–	–	–	–	–	–	–	5	7	–	–	–	12	–	0·006	–
(a) Vivax malaria (benign tertian)	199	63	262	2	1	3	208	225	433	–	–	–	2	15	678	–	–	3	695	3	0·331	0·051
(b) Malariae malaria (quartan)	19	6	25	–	–	–	25	43	63	–	–	–	1	6	86	–	–	–	93	–	0·044	–
(c) Falciparum malaria (Malignant tertian)	2,296	1,475	3,771	51	52	103	2,638	2,989	5,627	44	37	81	137	143	9,118	1	4	179	9,398	184	4·475	3·130
(d) Blackwater fever	4	6	10	1	1	2	2	–	2	–	–	–	–	6	6	–	1	1	12	2	0·006	0·034
(e) Other and unspecified forms of malaria	3,735	2,677	6,412	67	57	124	3,094	4,174	7,268	64	58	122	47	58	13,575	–	–	246	13,680	246	6·514	4·185
(a) Schistosomiasis vesical (S. haematobium)	660	256	916	3	2	5	1,087	803	1,890	2	2	4	9	6	2,791	–	–	9	2,806	9	1·336	0·153
(b) Schistosomiasis intestinal (S. Mansoni)	301	187	488	5	2	7	132	98	230	2	1	3	6	1	711	–	–	10	718	10	0·342	0·170
(c) Schistosomiasis pulmonary (S. japonicum)	–	4	4	–	–	–	1	–	1	–	–	–	–	–	5	–	–	–	5	–	0·002	–
(d) Other and unspecified schistosomiasis	5	–	5	–	–	–	11	4	15	–	–	–	–	1	19	–	–	–	20	–	0·009	–
Hydatid disease	9	5	14	–	–	–	1	2	3	–	–	–	–	–	17	–	–	–	17	–	0·008	–
(a) Filariasis (bancrofti)	239	31	270	–	–	–	120	28	148	–	–	–	–	–	418	–	–	–	418	–	0·199	–
(b) Onchocerciasis	–	–	–	–	–	–	1	–	1	–	–	–	–	–	1	–	–	–	1	–	0·000	–
(c) Other filariasis	55	25	80	–	–	–	20	17	37	–	–	–	–	9	108	–	–	–	117	–	0·056	–
Ankylostosomiasis	1,785	944	2,729	13	7	20	2,013	1,995	4,008	6	4	10	10	76	6,651	–	–	30	6,737	30	3·208	0·510
(a) Tapeworm and other cestode infestations	336	208	544	1	–	1	262	324	586	–	–	–	5	7	1,118	–	–	1	1,130	1	0·538	0·017
(b) Ascariasis	492	389	881	1	–	1	460	634	1,094	3	–	3	5	6	1,964	–	–	4	1,975	4	1·941	0·068
(c) Guinea worm (dracunculosis)	3	–	3	–	–	–	6	1	7	–	–	–	–	5	5	–	–	–	10	–	0·005	–
(d) Other diseases due to helminths	88	25	113	–	–	–	107	78	185	1	1	2	2	17	279	–	–	2	298	2	0·142	0·034
(a) Lymphogranuloma venereum	21	11	32	–	–	–	5	3	8	–	1	1	–	1	39	–	–	1	40	1	0·020	0·017
(b) Granuloma inguinale, venereal	14	4	18	–	–	–	3	2	5	–	1	1	–	–	23	–	–	1	123	1	0·011	0·017
(c) Chancroid and other unspecified venereal diseases	82	32	114	–	–	–	5	2	7	–	–	–	2	–	119	–	–	–	121	–	0·058	–

TABLE XI—(*contd.*)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS												
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	European	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percentage Morbidity	Percentage Mortality
d) Food poisoning infection and intoxication	37	34	71	–	–	–	2	18	20	1	1	2	–	–	91	–	–	2	91	2	0·043	0·034
(e) Relapsing fever, louse-borne	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
(f) Relapsing fever, tick-borne	289	259	548	7	7	14	218	242	460	8	5	13	1	1	1,006	–	–	27	1,008	27	0·480	0·459
(g) Leptospirosis icterohaemorrhagica (Weil's disease)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
(h) Yaws	407	138	545	1	–	1	244	183	427	–	–	–	–	2	970	–	–	1	972	1	0·463	0·017
(i) Chickenpox	236	109	345	–	–	–	41	31	72	1	–	1	–	3	414	–	–	1	417	1	0·199	0·017
(j) Mumps	62	31	93	–	–	–	20	24	44	–	–	–	1	7	129	–	–	–	137	–	0·065	–
(k) Dengue	1	4	5	–	–	–	–	–	–	–	–	–	4	1	–	–	–	–	5	–	0·002	–
(l) Trachoma	74	41	115	–	–	–	151	190	341	–	–	–	–	7	449	–	–	–	456	–	0·217	–
(m) Sandfly fever	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
(n) Leishmaniasis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
(o) (i) Trypanosomiasis gambiensis	–	–	–	–	–	–	1	–	1	–	–	–	–	–	1	–	–	–	1	–	0·000	–
(ii) Trypanosomiasis rhodesiensis	244	42	286	17	5	22	26	11	37	3	1	4	2	2	319	–	–	26	323	26	0·154	0·442
(iii) Other and unspecified trypanosomiasis	32	8	40	7	1	8	–	–	–	–	–	–	–	–	40	–	–	8	40	8	0·019	0·136
(p) Dermatophytosis	19	25	44	–	–	–	43	42	85	–	–	–	1	36	92	–	–	–	129	–	0·061	–
(q) Scabies	436	265	701	–	–	–	260	261	521	–	–	–	–	14	1,208	–	–	–	1,222	–	0·582	–
(r) All other diseases classified as infective and parasitic	280	106	386	1	2	3	198	150	348	1	4	5	21	7	706	–	1	7	734	8	0·350	0·136
GROUP II																						
Neoplasms																						
Malignant neoplasm of buccal cavity and pharynx	20	16	36	6	2	8	6	8	14	2	1	3	2	1	47	–	–	11	50	11	0·024	0·187
Malignant neoplasm of oesophagus	5	–	5	2	–	2	6	1	7	–	–	–	–	–	12	–	–	2	12	2	0·006	0·034
Malignant neoplasm of stomach	22	20	42	8	1	9	18	14	32	5	2	7	3	2	69	1	–	15	74	16	0·035	0·272
Malignant neoplasm of intestine, except rectum	7	7	14	3	3	6	22	8	30	1	3	4	–	–	44	–	–	10	44	10	0·021	0·170
Malignant neoplasm of rectum	5	3	8	2	–	2	7	3	10	–	–	–	1	–	17	–	–	2	18	2	0·009	0·034
Malignant neoplasm of larynx	–	2	2	–	–	–	1	1	2	–	–	–	–	1	3	–	–	–	4	–	0·002	–
Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	13	4	17	5	1	6	5	2	7	1	–	1	1	1	22	1	–	6	24	7	0·011	0·119
Malignant neoplasm of breast	1	18	19	–	3	3	–	19	19	–	3	3	4	–	34	–	–	6	38	6	0·018	0·102
Malignant neoplasm of cervix uteri	–	96	96	–	13	13	–	85	85	–	4	4	1	3	177	–	1	16	181	17	0·086	0·289

Territorial Totals: Group I: Cases 66,518; Deaths 1,557.

TABLE XI—(*contd.*)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS												
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	European	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percentage Morbidity	Percentage Mortality
Malignant neoplasm of other and unspecified parts of uterus	–	42	42	–	6	6	–	45	45	–	5	5	–	1	86	–	–	11	87	11	0·041	0·187
Malignant neoplasm of prostate	20	–	20	7	–	7	16	–	16	2	–	2	–	3	33	–	–	9	36	9	0·017	0·153
Malignant neoplasm of skin	44	39	83	5	1	6	20	6	26	–	1	1	3	3	103	–	1	6	109	7	0·052	0·119
Malignant neoplasm of bone and connective tissue	41	45	86	6	10	16	11	15	26	1	2	3	–	3	109	–	–	19	112	19	0·053	0·323
(a) Malignant neoplasm of liver and biliary passages	100	24	124	40	3	43	37	22	59	6	5	11	2	1	180	2	–	52	183	54	0·087	0·919
(b) Malignant neoplasm of all other and unspecified sites	101	45	146	17	8	25	59	50	109	13	8	21	3	4	248	–	2	44	255	46	0·121	0·783
Leukaemia and aleukaemia	19	4	23	5	1	6	6	6	12	1	–	1	1	2	32	1	1	5	35	7	0·017	0·119
Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	30	16	46	13	2	15	15	5	20	2	1	3	–	–	66	–	–	18	66	18	0·031	0·306
Benign neoplasms and neoplasms of unspecified nature	312	874	1,186	10	19	29	118	394	512	1	4	5	30	51	1,617	–	1	33	1,698	34	0·809	0·578
GROUPS III AND IV *Allergic, Endocrine system, Metabolic and Nutritional Diseases, and Diseases of the Blood and Blood-Forming Organs*																						
Nontoxic goitre	4	42	46	–	2	22	13	78	91	1	3	4	1	–	136	–	–	6	137	6	0·065	0·102
Thyrotoxicosis with or without goitre ...	2	5	7	1	–	1	5	9	14	–	–	–	5	–	16	–	–	1	21	1	0·010	0·017
Diabetes mellitus	113	32	145	9	1	10	48	22	70	5	1	6	21	58	136	–	1	15	215	16	0·102	0·272
(a) Beriberi	10	11	21	1	3	4	22	22	44	–	–	–	–	–	65	–	–	4	65	4	0·031	0·068
(b) Pellagra	44	25	69	5	4	9	13	11	24	–	–	–	–	–	93	–	–	9	93	9	0·044	0·153
(c) Scurvy	22	6	28	2	1	3	24	19	43	–	–	–	–	–	71	–	–	3	71	3	0·034	0·051
(d) Kwashiorkor	240	205	445	25	22	47	125	148	273	8	7	15	–	–	718	–	–	62	718	62	0·342	1·055
(e) Other deficiency states	372	296	668	36	31	67	280	294	574	11	15	26	2	26	1,214	–	1	92	1,242	93	0·591	1·582
(a) Pernicious and other hyperchromic anaemias...	21	14	35	3	2	5	48	42	90	–	1	1	2	10	113	–	–	6	125	6	0·060	0·102
(b) Iron deficiency anaemias (hypochromic)	140	197	337	6	5	11	259	585	844	10	6	16	7	52	1,122	1	–	26	1,181	27	0·562	0·459
(c) Other specified and unspecified anaemias...	440	332	772	40	41	81	832	1,064	1,896	6	6	12	2	18	2,648	–	1	92	2,668	93	1·271	1·582
(a) Asthma	426	295	721	7	2	9	153	148	301	2	2	4	16	61	945	–	1	12	1,022	13	0·487	0·221
(b) Other allergic disorders, endocrine, metabolic and blood diseases	197	239	436	6	5	11	209	57	266	10	6	16	36	27	639	1	–	26	702	27	0·334	0·459

Territorial Totals—Group II. Cases 3,026, Deaths 276.
Groups III and IV. Cases 8,260, Deaths 360.

TABLE XI—(*contd*)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS												
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	European	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percentage Morbidity	Percentage Mortality
GROUP V																						
Mental, Psychoneurotic and Personality Disorders																						
Psychoses	54	70	124	–	1	1	50	90	140	–	–	–	4	5	255	–	–	1	264	1	0·126	0·017
Psychoneuroses and disorders of personality	53	67	120	1	–	1	36	49	85	–	–	–	17	9	179	–	–	1	205	1	0·098	0·017
Mental deficiency	66	28	94	2	–	2	26	22	48	–	–	–	–	–	142	–	–	2	142	2	0·068	0·034
GROUP VI																						
Diseases of the Nervous System and Sense Organs																						
Vascular lesions affecting central nervous system	99	32	131	51	9	60	25	12	37	9	4	13	10	9	149	5	4	64	168	73	0·080	1·242
Nonmeningococcal meningitis	139	103	242	55	42	97	44	59	103	11	20	31	1	5	339	1	2	125	345	128	0·164	2·177
Multiple sclerosis	3	4	7	–	–	–	7	2	9	1	–	1	1	–	15	–	–	1	16	1	0·008	0·017
Epilepsy	129	39	168	1	4	5	32	20	52	–	–	–	5	5	210	–	1	4	220	5	0·105	0·085
Inflammatory diseases of eye	764	488	1,252	–	–	–	751	911	1,662	–	–	–	5	56	2,853	–	–	–	2,914	–	1·388	–
Cataract	105	46	151	–	–	–	209	131	340	–	–	–	–	21	470	–	–	–	491	–	0·234	–
Glaucoma	17	11	28	–	–	–	24	13	37	–	–	–	1	5	59	–	–	–	65	–	0·031	–
(a) Otitis externa	59	43	102	–	–	–	57	44	101	–	–	–	12	10	181	–	–	–	203	–	0·097	–
(b) Otitis media and mastoiditis	204	120	324	2	1	3	213	249	462	2	1	3	14	13	759	–	–	6	786	6	0·374	0·102
(c) Other inflammatory diseases of ear	72	29	101	–	–	–	33	52	85	1	–	1	1	5	180	–	–	1	186	1	0·089	0·017
(a) All other diseases and conditions of eye	415	177	592	2	–	2	317	232	549	–	–	–	6	27	1,108	–	–	2	1,141	2	0·543	0·034
(b) All other diseases of the nervous system and sense organs	384	208	592	10	7	17	221	176	397	8	4	12	33	37	919	–	1	28	989	29	0·471	0·493
GROUP VII																						
Diseases of the Circulatory System																						
Rheumatic fever	67	44	111	1	2	3	53	31	84	–	2	2	2	3	190	–	–	5	195	5	0·093	0·085
Chronic rheumatic heart disease	35	18	53	6	6	12	50	33	83	6	3	9	1	1	134	–	–	21	136	21	0·065	0·357
Arteriosclerotic and degenerative heart disease	37	38	75	7	7	14	58	39	97	3	2	5	20	14	138	2	1	16	172	19	0·082	0·323
Other diseases of the heart	264	189	453	71	34	105	177	224	401	26	29	55	15	63	776	2	6	152	854	160	0·407	2·722
Hypertension with heart disease	69	31	100	23	10	33	40	19	59	1	1	2	19	13	127	2	1	32	159	35	0·076	0·595
Hypertension without mention of heart	28	24	52	2	1	3	20	40	60	–	1	1	10	19	83	2	1	1	112	4	0·053	0·068
Diseases of arteries	30	4	34	2	1	3	11	7	18	1	1	2	4	3	45	–	–	5	52	5	0·025	0·085
Other diseases of circulatory system	253	139	392	19	10	29	133	102	235	10	5	15	46	36	545	–	1	43	627	44	0·299	0·749

Territorial Totals Group V Cases 611; Deaths 4.
,, VI Cases 7,524; Deaths 245.
,, VII Cases 2,307; Deaths 293.

TABLE XI—(*contd.*)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS												
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	European	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percentage Morbidity	Percentage Mortality
GROUP VIII																						
Diseases of the Respiratory System																						
Acute upper respiratory infections ...	670	434	1,104	8	2	10	340	376	716	4	3	7	43	29	1,748	–	–	17	1,820	17	0·867	0·289
Influenza	1,758	1,135	2,893	2	3	5	1,179	1,498	2,677	7	10	17	75	133	5,362	–	–	22	5,570	22	2·652	0·374
Lobar pneumonia	4,379	2,271	6,650	139	111	250	1,310	1,312	2,622	49	44	93	27	35	9,210	–	2	341	9,272	343	4·414	5·834
Bronchopneumonia	2,111	1,928	4,039	183	179	362	1,295	1,464	2,759	58	92	150	29	39	6,730	1	4	507	6,798	512	3·236	8·709
Primary, atypical, other and unspecified pneumonia	261	204	465	17	7	24	249	271	520	29	29	58	12	9	964	–	–	82	985	82	0·469	1·395
Acute bronchitis	1,500	969	2,469	6	2	8	688	676	1,364	8	4	12	29	33	3,771	–	–	20	3,833	20	1·825	0·340
Bronchitis, chronic and unqualified ...	694	350	1,044	4	1	5	177	161	338	–	–	–	23	24	1,335	–	–	5	1,382	5	0·658	0·085
Hypertrophy of tonsils and adenoids ...	214	146	360	–	–	–	115	138	253	–	1	1	68	52	493	–	–	1	613	1	0·292	0·017
Empyema and abscess of lung	47	16	63	12	4	16	11	10	21	1	1	2	1	5	78	–	1	17	84	18	0·040	0·306
Pleurisy (other than tuberculous) ...	146	49	195	4	1	5	86	98	184	1	–	1	2	6	371	–	–	6	379	6	0·181	0·102
(a) Pneumoconiosis	3	1	4	–	1	1	5	8	13	–	–	–	3	–	14	–	–	1	17	1	0·008	0·017
(b) All other respiratory diseases	387	144	531	9	6	15	341	372	713	14	3	7	16	20	1,208	1	1	20	1,244	22	0·592	0·374
GROUP IX																						
Diseases of the Digestive System																						
(a) Dental caries	199	93	292	–	–	–	107	138	245	–	–	–	16	30	491	–	–	–	537	–	0·256	–
(b) All other diseases of teeth and supporting structures	137	117	254	–	–	–	124	193	317	2	3	5	6	16	549	–	–	5	571	5	0·272	0·085
Ulcer of stomach	84	19	103	7	–	7	51	26	77	2	1	3	13	12	155	–	3	7	180	10	0·086	0·170
Ulcer of duodenum	48	4	52	3	–	3	17	4	21	–	–	–	22	9	42	–	1	2	73	3	0·035	0·051
Gastritis and duodenitis	143	91	234	1	2	3	85	53	138	1	–	1	36	15	321	–	–	4	372	4	0·177	0·068
Appendicitis	212	97	309	4	3	7	47	48	95	1	1	2	86	112	206	2	–	7	404	9	0·192	0·153
Intestinal obstruction and hernia... ...	2,079	151	2,230	111	26	137	816	118	934	23	17	40	34	75	3,055	2	4	171	3,164	177	1·507	3·011
(a) Gastro-enteritis and colitis between 4 weeks and 2 years	559	407	966	41	41	82	291	386	677	12	19	31	15	49	1,579	1	4	108	1,643	113	0·782	1·922
(b) Gastro-enteritis and colitis ages 2 years and over	934	581	1,515	56	27	83	218	306	524	3	5	8	64	45	1,930	–	1	90	2,039	91	0·971	1·548
(c) Chronic enteritis and ulcerative colitis	61	14	75	2	–	2	49	23	72	1	–	1	13	7	127	–	1	2	147	3	0·070	0·051
Cirrhosis of the liver	275	141	416	44	8	52	91	62	153	13	7	20	3	14	552	1	1	70	569	72	0·271	1·225
Cholelithiasis and cholecystitis	25	24	49	–	–	–	18	19	37	1	–	1	14	14	58	–	–	1	86	1	0·041	0·017
Other diseases of digestive system ...	1,666	1,125	2,791	59	31	90	516	673	1,189	14	8	22	135	108	3,737	1	7	104	3,980	112	1·895	1·905

Territorial Totals: Group VIII—Cases 31,997, Deaths 1,049
" IX Cases 13,765, Deaths 600

TABLE XI—*(contd.)*

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS												
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	European	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percentage Morbidity	Percentage Mortality
GROUP X																						
Diseases of the Genito-Urinary System																						
Acute nephritis	77	67	144	6	5	11	58	53	111	4	–	4	3	3	249	–	–	15	255	15	0·121	0·255
Chronic, other and unspecified nephritis	111	60	171	22	6	28	58	58	116	8	4	12	7	29	251	–	6	34	287	40	0·137	0·681
Infections of kidney (other than tuberculous)	51	53	104	3	–	3	47	47	94	4	2	6	29	11	158	–	–	9	198	9	0·094	0·153
Calculi of urinary system	48	10	58	1	–	1	34	7	41	–	–	–	23	9	67	–	–	1	99	1	0·047	0·017
Hyperplasia of prostate	135	–	135	12	–	12	100	–	100	4	–	4	1	10	224	1	1	14	235	16	0·112	0·272
Diseases of breast	–	296	296	–	–	–	–	138	138	–	1	1	7	8	419	–	–	1	434	1	0·207	0·017
(a) Hydrocele	1,108	–	1,108	4	–	4	525	–	525	2	–	2	4	10	1,619	–	–	6	1,633	6	0·778	0·102
(b) Disorders of menstruation	–	655	655	–	–	–	–	518	518	–	–	–	79	59	1,035	–	–	–	1,173	–	0·559	–
(c) All other diseases of the genito-urinary system	1,498	1,588	3,086	39	14	53	1,151	2,000	3,151	12	15	27	168	181	5,888	–	3	77	6,237	80	2·970	1·361
GROUP XI																						
Deliveries and Complications of Pregnancy, Childbirth and the Puerperium																						
Sepsis of pregnancy, childbirth and the puerperium	–	204	204	–	13	13	–	155	155	–	8	8	1	5	353	–	1	20	359	21	0·171	0·357
Toxaemias of pregnancy and the puerperium	–	300	300	–	14	14	–	83	83	–	3	3	15	26	342	–	1	16	383	17	0·182	0·289
Haemorrhage of pregnancy and childbirth	–	232	232	–	8	8	–	268	268	–	8	8	6	10	484	–	–	16	500	16	0·238	0·272
Abortion without mention of sepsis or toxaemia	–	1,320	1,320	–	4	4	–	595	595	–	2	2	63	61	1,791	–	–	6	1,915	6	0·912	0·102
Abortion with sepsis	–	259	259	–	8	8	–	145	145	–	6	6	3	16	385	–	–	14	404	14	0·192	0·238
(a) Other complications of pregnancy, childbirth and the puerperium	–	2,475	2,475	–	180	180	–	1,573	1,573	–	39	39	88	125	3,835	–	4	215	4,048	219	1·928	3·725
(b) Delivery without complications ...	–	9,455	9,455	–	2	2	–	4,130	4,130	–	–	–	379	601	12,605	–	–	2	13,585	2	6·469	0·034

Territorial Totals: Group X Cases 10,551; Deaths 168.
„ XI Cases 21,194; Deaths 295.

TABLE XI—(*contd.*)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS												
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	European	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percentage Morbidity	Percentage Mortality
GROUPS XII AND XIII																						
Diseases of the Skin and Cellular Tissues and Diseases of the Bones and Organs of Movement																						
Infections of skin and subcutaneous tissue	2,835	1,172	4,007	16	3	19	810	658	1,468	7	3	10	136	79	5,260	–	2	27	5,475	29	2·607	0·494
Arthritis and spondylitis	598	232	830	1	1	2	213	109	322	–	–	–	28	22	1,102	–	–	2	1,152	2	0·549	0·034
Muscular rheumatism and rheumatism unspecified	668	296	964	–	–	–	178	257	435	–	1	1	14	31	1,354	–	–	1	1,399	1	0·666	0·017
Osteomyelitis and periostitis	453	181	634	1	1	2	126	86	212	1	1	2	2	8	836	–	–	4	846	4	0·403	0·068
Ankylosis and acquired musculo-skeletal deformities	75	30	105	–	–	–	38	20	58	–	–	–	2	5	156	–	–	–	163	–	0·078	–
(a) Chronic ulcer of skin (including tropical ulcer)	2,055	710	2,765	6	10	16	534	424	958	–	–	–	12	6	3,705	–	–	16	3,723	16	1·772	0·272
(b) All other diseases of skin	775	206	981	1	2	3	153	142	295	–	1	1	30	42	1,204	–	–	4	1,276	4	0·608	0·068
(c) All other diseases of musculo-skeletal system	974	320	1,294	5	5	10	214	186	400	2	2	4	22	17	1,655	–	–	14	1,694	14	0·807	0·238
GROUP XIV																						
Congenital Malformations																						
Spina bifida and meningocele	5	7	12	1	1	2	3	1	4	–	1	1	–	–	16	–	–	3	16	3	0·008	0·051
Congenital malformations of circulatory system	3	8	11	–	1	1	4	5	9	1	3	4	2	1	17	–	1	4	20	5	0·009	0·085
All other congenital malformations ...	63	52	115	5	5	10	45	42	87	2	–	2	5	5	192	–	–	12	202	12	0·096	0·204
GROUP XV																						
Certain Diseases of Early Infancy																						
Birth injuries	5	26	31	1	2	3	9	9	18	4	3	7	1	–	48	–	–	10	49	10	0·023	0·170
Postnatal asphyxia and atelectasis ...	8	83	91	2	2	4	20	29	49	6	5	11	–	–	140	–	–	15	140	15	0·067	0·255
(a) Diarrhoea of newborn (under 4 weeks)	22	14	36	–	–	–	16	13	29	2	–	2	–	–	65	–	–	2	65	2	0·031	0·034
(b) Ophthalmia neonatorum	11	14	25	–	–	–	3	4	7	1	–	1	–	1	31	–	–	1	32	1	0·015	0·017
(c) Other infections of newborn	14	51	65	4	26	30	29	35	64	5	4	9	–	–	129	–	–	39	129	39	0·061	0·663
Haemolytic disease of newborn	6	9	15	–	2	2	4	5	9	2	2	4	–	5	19	–	–	6	24	6	0·011	0·102
All other defined diseases of early infancy	27	48	75	2	5	7	46	71	117	21	41	62	6	9	177	–	–	69	192	69	0·091	1·174
Ill-defined diseases peculiar to early infancy, and immaturity (all types) ...	69	181	250	12	24	36	188	266	454	65	78	143	4	6	694	–	2	177	704	179	0·335	3·045

Territorial Totals Groups XII and XIII Cases 15,728; Deaths 70.
Group XIV Cases 238; Deaths 20.
„ XV Cases 1,335; Deaths 321.

TABLE XI—*(contd.)*

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS												
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	European	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percentage Morbidity	Percentage Mortality
GROUP XVI																						
Symptoms, Senility, and Ill-Defined Conditions																						
Senility without mention of psychosis ...	73	56	129	19	9	28	35	19	54	1	1	2	2	10	171	–	–	30	183	30	0·087	0·510
(a) Pyrexia of unknown origin ...	3,259	2,065	5,324	86	42	128	666	803	1,469	29	22	51	199	70	6,524	1	3	175	6,793	179	3·235	3·045
(b) Observation without need for further medical care	466	334	800	–	–	–	226	246	472	–	–	–	52	30	1,190	–	–	–	1,272	–	0·606	–
(c) All other ill-defined causes of morbidity	798	653	1,451	31	27	58	153	212	365	15	17	32	118	37	1,661	–	2	88	1,816	90	0·865	1·531
GROUP XVII																						
Accidents, Poisonings and Violence																						
Fracture of skull	73	56	129	19	9	28	35	19	54	1	1	2	2	10	171	–	–	30	183	30	0·087	0·510
Fracture of spine and trunk	241	33	274	17	1	18	27	27	54	2	1	3	19	8	301	1	2	18	328	21	0·156	0·357
Fracture of limbs	2,737	944	3,681	19	3	22	274	115	389	–	–	–	73	159	3,838	–	–	22	4,070	22	1·938	0·374
Dislocation without fracture	420	121	541	–	1	1	38	24	62	–	–	–	8	4	591	–	–	1	603	1	0·287	0·017
Sprains and strains of joints and adjacent muscles	671	161	832	–	–	–	74	43	117	–	1	1	23	20	906	–	–	1	949	1	0·452	0·017
Head injury (excluding fracture) ...	458	128	586	10	1	11	72	18	90	3	–	3	14	26	636	–	1	13	676	14	0·322	0·238
Internal injury of chest, abdomen and pelvis	142	20	162	26	5	31	44	13	57	6	–	6	3	1	215	–	1	36	219	37	0·104	0·630
Laceration and open wounds	3,192	698	3,890	19	4	23	513	192	705	2	2	4	63	65	4,467	–	–	27	4,595	27	2·188	0·459
Superficial injury, contusion and crushing with intact skin surface	1,372	372	1,744	1	–	1	174	87	261	1	1	2	22	36	1,947	–	–	3	2,005	3	0·955	0·051
Effects of foreign body entering through orifice	108	64	172	3	–	3	30	17	47	1	2	3	7	4	208	–	–	6	219	6	0·104	0·102
Burns	595	376	971	29	27	56	111	104	215	5	5	10	15	27	1,144	–	1	65	1,186	66	0·565	1·123
Effects of poisons	306	129	435	12	9	21	88	85	173	33	31	64	16	9	583	1	2	82	608	85	0·290	1·446
All other and unspecified effects of external causes	655	201	856	3	2	5	306	81	387	4	–	4	29	21	1,193	–	–	9	1,243	9	0·592	0·153
Totals ...	72,495	54,669	127,164	2,308	1,649	3,957	36,521	46,317	82,838	952	970	1,922	3,505	4,237	202,260	38	115	5,726	210,002	5,879	100·000	100·000

Territorial Totals:—Group XVI Cases 10,064. Deaths 299.
„ XVII Cases 16,884. Deaths 322.

TABLE XII

DISEASES

Out-Patients—Government and Mission Hospitals

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

	Government Hospitals			Mission Hospitals			Total European	Total Asian	Total African	Territorial Total	Group Total	Percentage Morbidity
	M	F	Total	M	F	Total						
GROUP I												
Infective and Parasitic Diseases (and influenza, all types meningitis and eye diseases)												
Tuberculosis of the respiratory system	1,990	1,113	3,103	709	575	1,284	32	145	4,210	4,387		0·287
Other Tuberculous diseases	394	251	645	186	252	438	6	13	1,064	1,083		0·071
Syphilis	9,664	7,981	17,645	2,236	1,414	3,650	7	27	21,261	21,295		1·398
Gonorrhoea	15,315	5,548	20,863	4,323	2,857	7,180	30	85	27,928	28,043		1·842
Other venereal diseases	3,861	1,467	5,328	52	41	93	12	11	5,398	5,421		0·356
Fevers of uncertain origin	75,733	56,625	132,358	8,025	8,954	16,979	796	1,925	146,616	149,337		9·808
Bacillary dysentery	1,934	1,415	3,349	487	385	872	107	181	3,933	4,221		0·277
Amoebiasis	340	242	582	464	272	736	64	84	1,170	1,318		0·086
Other dysenteries	5,113	3,755	8,868	1,741	1,593	3,334	155	105	11,942	12,202		0·801
Diphtheria	2	2	4	1	2	3	1	—	6	7		0·000
Whooping cough	1,200	1,500	2,700	1,958	1,750	3,708	32	110	6,266	6,408		0·420
Meningitis	44	36	80	40	18	58	—	—	138	138		0·008
Plague	—	—	—	—	—	—	—	—	—	—		—
Leprosy	664	490	1,154	573	410	983	—	10	2,127	2,137		0·140
Tetanus	5	—	5	5	1	6	—	—	11	11		0·000
Anthrax	115	70	185	14	9	23	—	—	208	208		0·013
Relapsing fever	169	192	361	206	138	344	3	1	701	705		0·046
Yaws	6,536	4,721	11,257	1,738	1,524	3,262	—	2	14,517	14,519		0·954
Acute poliomyelitis	47	46	93	77	45	122	5	4	206	215		0·014
Smallpox:—												
(a) Variola major	—	—	—	—	—	—	—	—	—	—		—
(b) Variola minor	17	8	25	7	7	14	—	2	37	39		0·003
Measles	1,550	1,545	3,095	806	932	1,738	52	92	4,689	4,833		0·317
Chickenpox	1,038	825	1,863	506	410	916	23	33	2,723	2,779		0·182
Mumps	1,547	1,067	2,614	340	204	544	71	28	3,059	3,158		0·207
Yellow fever	—	—	—	—	—	—	—	—	—	—		—
Rabies	—	—	—	—	—	—	—	—	—	—		—
Trachoma	1,322	987	2,309	672	699	1,371	12	86	3,582	3,680		0·242
Typhus and other rickettsial diseases	1	4	5	3	—	3	5	—	3	8		0·000
Malaria:—												
(a) Benign Tertian	30	15	45	147	125	272	10	23	284	317		0·021
(b) Quartan	1	3	4	183	127	310	1	2	311	314		0·021
(c) Subtertian	15,654	13,342	28,996	8,875	7,181	16,056	137	616	44,299	45,052		2·959
(d) Unclassified	24,440	17,065	41,505	16,131	18,140	34,271	327	1,348	74,101	75,776		4·978
Blackwater fever	—	—	—	—	1	1	—	—	1	1		0·000
Trypanosomiasis	1	5	6	32	8	40	—	1	45	46		0·003
Schistosomiasis:—												
(a) Vesical (haematobium)	7,706	3,981	11,687	4,384	2,333	6,717	2	51	18,351	18,404		1·209
(b) Intestinal (mansoni)	1,596	1,716	3,312	899	415	1,314	11	7	4,608	4,626		0·301

TABLE XII—(*contd.*)

DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

	Government Hospitals			Mission Hospitals			Total European	Total Asian	Total African	Territorial Total	Group Total	Percentage Morbidity
	M	F	Total	M	F	Total						
Tapeworm	2,065	1,625	3,690	1,741	857	2,598	17	11	6,260	6,288		0·413
Filariasis (bancrofti)	207	123	330	789	85	874	1	1	1,202	1,204		0·079
Onchocerciasis	—	—	—	3	8	11	—	3	8	11		0·000
Ankylostomiasis	10,763	8,867	19,630	7,655	4,987	12,642	5	90	32,177	32,272		2·120
Ascariasis	5,907	4,028	9,935	3,084	2,721	5,805	22	59	15,659	15,740		1·034
Guinea worm (dracunculosis)	—	—	—	—	—	—	—	—	—	—		—
Tinea	1,822	1,232	3,054	413	265	678	56	42	3,634	3,732		0·245
Scabies	14,084	11,332	25,416	3,051	2,934	5,985	23	86	31,292	31,401		2·063
All other infective and parasitic diseases	12,063	9,018	21,081	1,775	1,709	3,484	458	586	23,521	24,565	525,901	1·614
GROUP II												
Neoplasms												
Malignant neoplasms	56	68	124	87	79	166	13	12	265	290		0·019
Non-malignant	236	322	558	259	462	721	32	16	1,231	1,279		0·084
Unspecified	433	350	783	84	125	209	23	12	957	992	2,561	0·065
GROUP III												
Allergic, Endocrine system, Metabolic and Nutritional Diseases												
Asthma	2,447	1,141	3,588	611	304	915	70	250	4,183	4,503		0·296
Diabetes	122	107	229	28	29	57	22	67	197	286		0·019
Vitamin deficiency states	1,320	1,446	2,766	3,024	2,745	5,769	12	44	8,479	8,535		0·560
Kwashiorkor	295	219	514	176	195	371	—	—	885	885		0·058
Other allergic, endocrine system, metabolic and nutritional diseases	3,841	3,211	7,052	707	724	1,431	394	337	7,752	8,483	22,692	0·557
GROUP IV												
Diseases of the Blood and Blood-Forming Organs												
All diseases of the blood and blood-forming organs	3,396	3,450	6,846	1,802	2,736	4,538	141	187	11,056	11,384	11,384	0·748
GROUPS V AND VI												
Mental, Psychoneurotic and Personality Diseases and Diseases of the Nervous System and Sense Organs												
Mental disorders	146	130	276	56	67	123	111	16	272	399		0·026
Cerebral-haemorrhage	6	1	7	13	2	15	2	—	20	22		0·001
Epilepsy	139	69	208	90	43	133	12	6	323	341		0·022
Other diseases of nervous system	4,384	2,714	7,098	653	650	1,303	254	213	7,934	8,401		0·552
Inflammatory and other diseases of the eye and annexa except trachoma	27,088	22,868	49,956	9,122	9,037	18,159	403	521	67,191	68,115		4·474
Disease of ear and mastoid	12,735	9,904	22,639	2,274	2,148	4,422	810	347	25,904	27,061	104,339	1·778

TABLE XII—(*contd.*)

DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

	Government Hospitals			Mission Hospitals			Total European	Total Asian	Total African	Territorial Total	Group Total	Percentage Morbidity
	M	F	Total	M	F	Total						
GROUP VII												
Diseases of the Circulatory System												
Diseases of the circulatory system:—												
(a) Heart disease	330	191	521	842	660	1,502	114	84	1,825	2,023		0·133
(b) Other circulatory diseases	1,409	866	2,275	362	332	694	240	88	2,641	2,969	4,992	0·195
GROUP VIII												
Diseases of the Respiratory System												
Pneumonia	4,180	3,540	7,720	2,332	2,559	4,891	34	265	12,312	12,611		0·828
Other diseases of respiratory system	102,905	72,724	175,629	16,719	15,973	32,692	2,306	3,627	202,388	208,321	220,932	13·687
GROUP IX												
Diseases of the Digestive System												
Diseases of Teeth and supporting structure:—												
(a) Caries	14,005	9,285	23,290	3,149	3,094	6,243	300	270	28,963	29,533		1·941
(b) Other conditions	6,306	4,684	10,990	747	927	1,674	121	104	12,439	12,664		0·832
Appendicitis	51	135	186	23	11	34	57	28	135	220		0·014
Intestinal obstruction and hernia	1,322	126	1,448	699	107	806	26	22	2,206	2,254		0·148
Gastro-enteritis:—												
(a) Between 4 weeks and 2 years	5,899	5,226	11,125	2,044	2,052	4,096	105	229	14,887	15,221		1·000
(b) 2 years and over	12,446	7,620	20,066	2,022	1,875	3,897	590	245	23,128	23,963		1·575
Cirrhosis of the liver	64	114	178	67	29	96	7	10	257	274		0·018
Other diseases of liver and bile passages	504	426	930	238	154	392	74	33	1,215	1,322		0·087
Other diseases of digestive system	57,802	52,098	109,900	4,132	7,175	11,307	952	1,172	119,083	121,207	206,658	7·962
GROUP X												
Diseases of the Genito-Urinary System												
Nephritis	126	99	225	100	85	185	13	19	378	410		0·027
Other diseases of genito-urinary system	13,709	9,980	23,689	2,656	5,151	7,807	673	603	30,220	31,496	31,906	2·069
GROUP XI												
Complications of Pregnancy, Childbirth and the Puerperium												
Diseases of pregnancy, childbirth and the puerperal state:—												
(a) Toxaemias of pregnancy	—	446	446	—	155	155	37	23	541	601		0·039
(b) Abortion	—	533	533	—	174	174	28	26	653	707		0·046
(c) Other conditions of the puerperal state	—	2,791	2,791	—	236	236	96	70	2,861	3,027	4,335	0·199

TABLE XII—(*contd.*)

DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1956 to 30th November, 1957)

	Government Hospitals			Mission Hospitals			Total European	Total Asian	Total African	Territorial Total	Group Total	Percentage Morbidity
	M	F	Total	M	F	Total						
GROUPS XII AND XIII												
Deseases of the Skin and Cellular Tissue, and Diseases of Bones and Organs of Locomotion												
Ulcers	54,439	21,018	75,457	5,186	3,504	8,690	204	311	83,632	84,147		5·527
Rheumatic conditions	24,793	18,140	42,933	4,096	3,432	7,528	359	486	49,616	50,461		3·314
Other diseases of bones, skin and musculo-skeletal system	38,139	23,077	61,216	4,628	3,352	7,980	2,265	1,196	65,735	69,196	203,804	4·546
GROUPS XIV AND XV												
Congenital Malformations and Certain Diseases of Early Infancy												
Diarrhoea of the new-born	35	84	119	44	56	100	6	3	210	219		0·014
Ophthalmia neonatorium	71	74	145	17	18	35	–	4	176	180		0·012
Immaturity	13	25	38	78	12	90	8	8	112	128		0·008
All other malformation and diseases of early infancy	201	112	313	306	270	576	54	22	813	889	1,416	0·058
GROUP XVI												
Senility and Ill-Defined Conditions												
Senility	628	223	851	53	58	111	3	15	944	962		0·063
All other ill-defined causes of morbidity	13,480	11,828	25,308	1,989	2,135	4,124	999	445	27,988	29,432	30,394	1·934
GROUP XVII												
Accidents, Poisoning and Violence												
Fractures and dislocations	1,938	786	2,724	415	233	648	173	174	3,025	3,372		0·221
Injuries by animals and insects	1,359	842	2,201	235	174	409	253	81	2,276	2,610		0·171
Other wounds and superficial injuries (excluding burns)	42,950	11,835	54,785	8,113	4,205	12,318	758	493	65,852	67,103		4·407
Burns and scalds	3,693	2,412	6,105	563	435	998	73	114	6,916	7,103		0·466
Poisons	212	55	267	52	65	117	11	1	372	284		0·025
All other injuries from external causes	20,030	5,796	25,826	1,441	606	2,047	405	349	27,119	27,873		1·831
Examinations	16,835	9,112	25,947	6,898	9,976	16,874	2,837	2,139	37,845	42,821	151,266	2·812
Totals	721,458	484,545	1,206,003	163,563	153,014	316,577	18,963	20,657	1,482,960	1,522,580	1,522,580	100·000