

## **Annual report of the Medical Department / Tanganyika Territory.**

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TANGANYIKA

# Annual Report

of the

## Medical Department

for the year ended 31st December

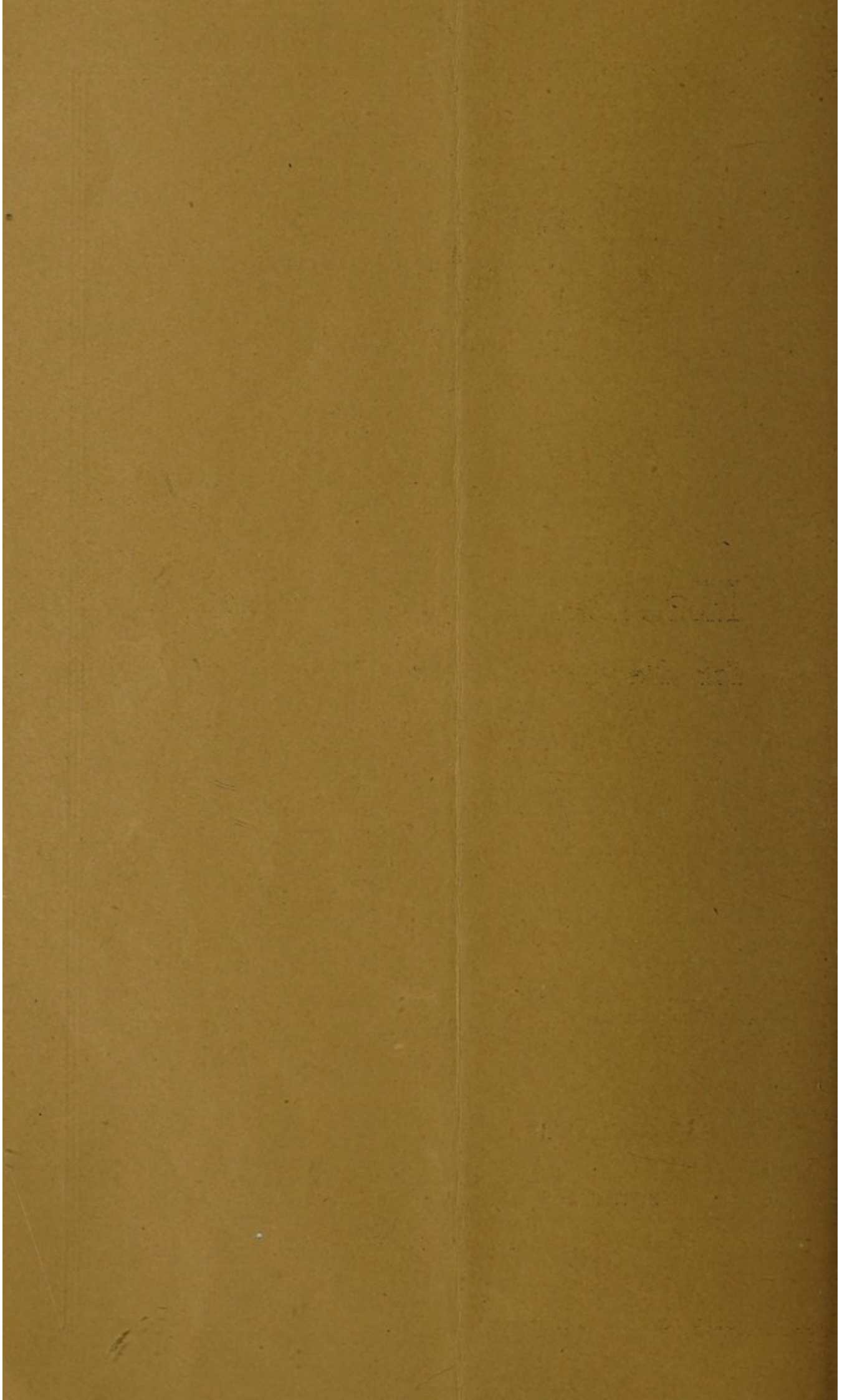
# 1952



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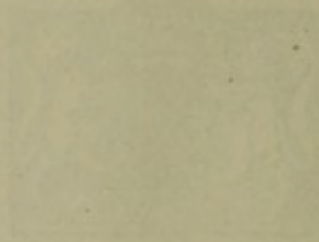


TANGANYIKA

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Medical Department  
for the year ended 31st December  
1952**





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## TANGANYIKA

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# Annual Report of the Medical Department for the year 1952

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## PART I

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### I.—GENERAL REVIEW

The Medical Department is one of the group of social service departments for which the Member for Social Services is responsible. The Director of Medical Services, with his headquarters in Dar es Salaam, is responsible for the organization and administration of the Department. In addition, he is the principal medical adviser to the Government.

2. The Department is responsible for providing, directly or indirectly, a balanced curative and preventive medical service covering the entire country through the medium of a network of hospitals, dispensaries and various other health services in each district. It provides hospitals for special purposes such as maternity and the treatment of leprosy, tuberculosis and infectious disease. It provides laboratory, dental and other ancillary medical services. It undertakes the training of medical, nursing and public health personnel. It subsidizes and co-ordinates the medical work undertaken by missions and supervises the health services provided by local native administrations. Its community health services include rural and urban sanitation, the prevention and control of communicable disease, hygiene of schools, the medical supervision of employed labour (in co-operation with the Labour Department) and health education.

3. For administrative purposes the territory is divided into four medical regions. Each region covers the area of two provinces and is under the charge of a regional Assistant Director of Medical Services. Subject to conformity with Government medical policy within his region, the regional Assistant Director of Medical Services is responsible to the Director for the administration of all medical and public health services provided by the central Government and supervises those provided by local authorities. He also advises the Director of Medical Services in connection with mission and other non-government medical agencies in receipt of Government financial assistance, and assists in the co-ordination of their services with those provided by Government. He advises Provincial Commissioners within his region on matters of health and is a member of the provincial teams or councils within his region. A Senior Medical Officer resides in the Southern, Central, Tanga and Western provinces. He deputizes for the regional Assistant Director in all matters relating to medical work in the province to which he is attached.



4. District medical officers are appointed to local areas, usually administrative districts or groups of districts. They are responsible to the regional Assistant Director of Medical Services for the organization and supervision of the curative and preventive medical services within their districts.

5. Preventive services can only be built up effectively on a framework of curative medicine, and public confidence and co-operation in preventive medicine can only be secured by the attraction of curative facilities. Most of the diseases for which treatment is sought in this country are essentially preventable. For this reason, the curative and preventive functions of the majority of the members of the medical staff cannot be effectively separated; they are concerned equally with the prevention and the cure of disease. Medical officers of health are specifically appointed to the Municipality of Dar es Salaam and the township of Tanga. In all other townships, the district medical officers undertake the functions of medical officers of health. There is also a port health officer in Dar es Salaam. The Department provides a staff of health inspectors who, under the direction of district medical officers and medical officers of health, perform public health duties of all kinds in urban and rural areas.

6. Whole time specialist officers are employed in the following branches of medical work:— Medicine (2), surgery (2), ophthalmology (2), pathology (1), industrial health (1), tuberculosis (1), sleeping sickness (1). The duties of malariologist are at present undertaken by the Director, East African Malaria Unit, whose headquarters are at Amani. Specialist posts exist but are not yet filled in the divisions of mental health, radiology and anaesthetics. Two medical officers are wholly engaged in leprosy duties.

7. The staff of the Dental Division includes a Senior Dental Surgeon and five other dental surgeons, a senior and two other dental mechanics. Fully equipped dental units are maintained in Dar es Salaam, Tanga and Mwanza; the last named was opened during 1952. The Senior Dental Surgeon and members of his staff make periodic visits to the main centres of population not yet provided with static dental units, and local arrangements are made whereby persons entitled to dental treatment free or at reduced rates can utilize the services of local non-government dental practitioners.

8. The central Government medical laboratory is located in Dar es Salaam, under the control of the Senior Pathologist, who is also responsible for the organization of a territorial laboratory service which extends to the main district hospitals. The functions of the laboratory service include diagnostic pathology, bacteriology and research into clinical and epidemiological problems. They also include the training of laboratory assistants. The central laboratory is staffed by two pathologists and four laboratory superintendents.

9. The pharmaceutical section of the Department consists of a Chief Pharmacist, six pharmacists and a stores accountant with a staff of stores assistants. The medical stores and pharmaceutical laboratory supply drugs, medical and surgical materials, etc., for all government and native authority medical units and purchases from the stores may be made by medical missions. During 1952 the medical stores moved to new commodious buildings which should make for much greater ease of working. It is intended to move the pharmaceutical laboratory to an adjoining site in 1953.



10. The financial provision for the Medical Department falls, broadly, into two categories: capital expenditure for the provision and equipment of new institutions and recurrent expenditure for the maintenance of services, including personal emoluments. As regards capital provision it was stated in last year's Annual Report that 1951 had been a very largely one of intensive planning and preparation for expansion in 1952, particularly in connection with the construction of new hospitals and extension of old ones under the Territory's approved Development Scheme. It has not been possible to implement these plans in full. Nevertheless, the progress made during the year was by no means negligible. New hospital buildings at the Tuberculosis Sanatorium, Kibongoto were completed except for the installation of electric light; the institution now has 240 beds. The new district hospital at Korogwe with 100 beds was virtually completed and so was the new sixteen-bed maternity wing at the European Hospital, Dar es Salaam. In addition, new district hospitals at Nzega (Western Province) and Lindi (Southern Province) were begun, and the territorial Mental Hospital, Dodoma (Central Province) was enlarged. Finally, a new nursing sisters' home at Tanga was half way to completion by the end of the year.

11. Throughout the year an architect, specially appointed to design the new Dar es Salaam Group Hospital, was actively engaged with members of the Department in the preparation of preliminary drawings for a 400-bed hospital, ultimately expandable to 600 beds or more. These plans were completed at the end of the year and a report on the estimated cost of the project is now awaited.

12. During the year all existing services were maintained and, in some cases, expanded. Funds provided for the health services in the territorial budget for 1952 are shown in the following table :—

TABLE I

	Recurrent Expenditure £	Special Expenditure £
Medical Department ... ..	895,434	45,280
Township Public Health ... ..	45,244	10,256
Total ... ..	940,678	55,536
Total Territorial Estimates ... ..	11,420,380	321,730

The provision represented 8·2 per cent of the recurrent expenditure and 17·5 per cent of special expenditure of the total territorial budget for the year compared with 9·5 per cent and 8·3 per cent, respectively in 1951. In addition to the above, £26,600 was allocated in the Public Works Department Estimates for improvements to medical buildings, £271,720 in the Development Estimates for medical capital works, and £152,821 for public health services by native treasuries in their estimates.

13. Epidemic diseases during the year were neither serious nor widespread. There was no major outbreak of smallpox although a series of small outbreaks of the mild form of the disease (*variola minor*) occurred and were rapidly brought under control. Plague incidence was high (573 cases and 100 deaths). Most cases came from one area, Singida in the Central Province where an epidemic, which began in 1951, continued until late in the year when it died down.



14. A sharp epidemic of typhoid occurred at a mission boarding school at Tosamaganga, Iringa District. Between 16th and 29th January, eighty-four cases with six deaths were reported. In the early stages, diagnosis was difficult, the symptoms being suggestive of typhus, but the disease was eventually confirmed by laboratory tests as being typhoid, the casual organism being *S. typhi*. Tosamaganga was declared an infected area and sanitary measures were immediately instituted covering the disposal of refuse and sewage, the protection of food supplies, the sterilization of water, disinfection of bedding and clothing, fly destruction and protective inoculation of persons at risk. Probable modes of spread of the disease were investigated. It was finally established that the outbreak was water-borne, contamination of the water supply having taken place through a leaking joint. No further cases of typhoid occurred after 29th January.

15. Among the non-epidemic communicable diseases there has been much progress in leprosy control. A second medical officer has been appointed for whole time duties on leprosy work enabling a centre to be opened up at Muheza hospital. The British Red Cross Society has supplied funds to build a leprosy hospital at Makete. Work on this hospital was well advanced by the end of the year. Agreement was reached between the local native treasuries of the Western Province and the Moravian Mission on a scheme for the development of a leprosarium at Ipole in Tabora District; it is to be financed partly by the native treasuries and partly by the central Government. A similar arrangement has been made between native treasuries in the Southern Province and the U.M.C.A. Mission in which the latter will manage a new leprosarium at Newala to be built and maintained at the expense of the local native treasuries. British Empire Leprosy Relief Association has agreed to contribute towards the capital expenditure. Building has already commenced and is in the hands of a lay worker of the B.E.L.R.A. who was appointed in the latter half of the year.

16. The steady decline in the number of sleeping sickness cases which began in 1950 continued in 1952. The intensification of sleeping sickness control measures during the last few years has undoubtedly influenced the rate of decline.

17. A further step forward in the training of African medical and health staff was taken during the year when a three-year course for assistant health inspectors was inaugurated at Kongwa and a two-year course for health nurses at Tukuyu in the Southern Highlands Province. In addition, the U.M.C.A. Mission at Newala in the Southern Province began a scheme for training village nurses over a period of two years, the cost of the project being borne by the Native Administration. The hoped-for expansion of the training school for rural medical aids at Mwanza and the extension of provision for midwives' training by the opening of a second training school at Tabora have not yet materialized. Funds were available but building capacity was not.

18. The staff situation continues, generally, to improve; details will be found in a later section of the report.

19. Much valuable new legislation was introduced during the year. The Medical Practitioners and Dentists Ordinance, No. 15 of 1952, replaced the previous Medical Practitioners and Dentists Ordinance (Cap. 92 of the Laws



of Tanganyika). This introduced a number of amendments to the earlier legislation, the most notable being that applicants for registration must have undergone an approved period of post-graduate experience before being admitted to the Register. Until the enactment of the Mental Diseases (Amendment) Ordinance, No. 62 of 1952, only voluntary and certified patients could be admitted to a mental hospital. The new Ordinance, in providing for the admission of the uncertified case who by reason of his condition is unable to volunteer to enter a mental hospital, brings Tanganyika legislation into line with modern practice in Europe and America.

20. The Nurses and Midwives Registration Ordinance (No. 63 of 1952) provides, for the first time, for the registration and regulation of the practice of nurses and midwives in Tanganyika and for the control of their training. It provides for a Nurses' and Midwives' Council with powers, among others, to keep a register of nurses and midwives, to prescribe and regulate syllabuses of instruction and hold examinations, to issue certificates of registration, to supervise professional conduct and, where necessary, to take disciplinary action.

21. The draft of a territorial Public Health Ordinance has been completed and is now being examined.

22. During the year mission medical work continued to increase. Government grants-in-aid for hospital maintenance and training of medical personnel amounted to £55,800 in 1952 compared with £54,204 in 1951. Government policy in relation to mission medical work was clarified with the publication of revised Regulations (G.N. No. 2403 of 1952) covering assessment and payment of grants; furthermore, Government has now accepted the principle that responsibility for subsidizing mission rural dispensaries should fall to the Native Authorities while central Government will retain responsibility for grants to mission hospitals.

23. It is encouraging to record that certain medical missions are now developing interests beyond the bounds of their institutions in the field of public health. The medical staff of the U.M.C.A. hospitals on the shores of Lake Nyasa are to be congratulated on their efforts in connection with the investigation and eradication of hookworm in the Mchuchuma Valley, the investigation of endemic goitre in Njombe and the development of community health services at Liuli.

24. On the initiative of the Medical Instructor of the Training School, Dar es Salaam, and in co-operation with the Social Development and Public Relations organizations, a series of radio talks were given regularly by an African member of the medical staff and were published subsequently in the vernacular press. These talks have been remarkably popular and the "radio doctor" is now a well-established personality on the local broadcasting system.

25. The very rapid post-war expansion in all urban areas, together with increased migration of Africans into the towns, has intensified the public health and social problems of townships. The problems are particularly evident in the overcrowding of premises and land with resulting defective sanitary accommodation and heavy pressure on the inadequate sewage, conservancy and refuse disposal systems.



## II.—STAFF

26. A further improvement in staff recruitment took place in 1952, nineteen medical officers, one dental surgeon, twenty-nine nursing sisters, five health visitors, four mental nurses and four health inspectors being appointed during the year. This increase was partly offset by resignations and transfers but the additional staff obtained allowed the establishments of many of the larger hospitals to be brought up to full strength, and the posting of European officers to stations hitherto unstaffed. Many of the remaining vacancies were filled by temporary employees.

27. The following specialist services were without a specialist at their head during the whole of 1952; mental health, X-ray, anaesthetics and malaria, although the last-named was looked after by the Director, East African Malaria Unit.

28. With regard to Junior Service staff, the main shortage is of assistant medical officers, medical and medical ancillary assistants and nurses, both male and female. The opportunities of obtaining trained staff are almost entirely restricted to the numbers who qualify from the territorial departmental training centres. The demand for training and for trained staff far exceeds the available accommodation and it will be many years before the Department is able to produce medical and nursing staff in the requisite numbers.

29. The serious shortage of clerical staff continues with the result that professional officers must perforce spend much of their time on routine clerical duties and the meticulous supervision of inexperienced and frequently unreliable clerical staff.



## PART II—PUBLIC HEALTH

### III.—COMMUNICABLE DISEASES

30. In this chapter a brief description is given of the more prevalent communicable diseases on which reports have been received during the year. In the case of smallpox, cerebro-spinal meningitis, relapsing fever, poliomyelitis, sleeping sickness and plague, the statistical data quoted are obtained from all available sources in the territory. Leprosy figures include mission as well as Government returns. For the remaining diseases, the figures used represent returns from all Government and mission hospitals with resident doctors. They cannot, therefore, be related directly to those given for previous years which refer to morbidity and mortality in Government institutions only and include returns from dispensaries which were not under the direct charge of a qualified doctor. This is the first year in which it has been possible to include classified morbidity and mortality returns submitted by mission hospitals; the division between Government and mission returns in respect of each disease is given in Appendix V and Appendix VI.

As from the beginning of 1952 all hospitals, both Government and mission, having resident doctors have classified diseases among in-patients in accordance with the Intermediate List (condensed from the 1948 International Statistical Classification of Disease and Causes of Death) approved by the Secretary of State for the Colonies, while out-patient morbidity has been recorded in accordance with a shorter list. Previously, morbidity and mortality statistics in the territory were based on the 1938 revision of the International List. The decision to include disease statistics only in respect of hospitals with doctors has been made because those Government and mission units which are under the charge of nursing sisters or medical assistants have not the diagnostic facilities necessary for detailed classification of morbidity and mortality.

#### (A) DIRECT INFECTIONS

##### *Smallpox (Variola)*

31. TABLE I  
REPORTED INCIDENCE, 1948-1952

	1948	1949	1950	1951	1952
Cases	1,206	1,045	6,390	885	370
Deaths	209	169	1,345	139	34
Case Mortality per cent	17.3	16.1	21.04	16.3	9.19

32. Outbreaks of smallpox of varying magnitude occur from time to time in different parts of the territory; 1952 has been no exception, although all the outbreaks were small and, with one exception, short-lived. Fortunately, the mild form of the disease (*variola minor*) constituted the great majority of cases. The number of cases of smallpox as recorded in the official returns does not indicate its true incidence. In rural areas the local inhabitants become so accustomed to mild smallpox that frequently no steps are taken by them to report it. Consequently, the reported case fatality is almost certainly



much higher than it actually is because most deaths are reported. Since 1946 there has been a progressive decline in the incidence of smallpox with the exception of the severe outbreak in 1950 described at length in the Annual Report for that year.

33. The majority of cases in the past year were reported from the Eastern and Lake provinces where scattered outbreaks occurred in the Uruguru Mountains, in Morogoro township, and in Kisarawe, Bagamoyo, Maswa, Mwanza and Bukoba districts. Except for the outbreak in Bagamoyo which continued sporadically throughout the year with a total of sixty-seven reported cases and seven deaths, the outbreaks were rapidly brought under control.

34. Although at no time did the disease approach epidemic proportions in the Southern Province, sporadic cases occurred in all districts except Mikindani. The relatively low incidence of smallpox in the Southern Province this year compared with last year may be due to the mass vaccinations carried out in the greater part of the province during 1950 and 1951.

35. The differential diagnosis between *variola minor* and chicken-pox continues to cause confusion occasionally. Facilities for laboratory confirmation of the diagnosis of *variola minor* are available at Entebbe through the Medical Laboratory, Dar es Salaam, but little use is made at present of these facilities, largely owing to difficulties of communication.

### 36. Poliomyelitis

TABLE II

		REPORTED INCIDENCE, 1948-1952					
		1948	1949	1950	1951	1952	
Cases	...	25	63	14	24	90	
Deaths	...	2	6	Nil	5	10	
Case Mortality	per cent	8	9.5	0.0	20.8	11.1	

37. The number of cases of poliomyelitis increased considerably during the year under review. The largest number, viz. thirty-three cases, were notified from the Southern Province, but it would appear to have been a relatively mild infection as no deaths were notified. Cases were notified from every province of the territory except the Lake Province where, strangely enough, the rural population is most congested and internal communications among the best in the Territory.

38. It was unusual for more than one case to occur in any one place at a given time, but in the case of a limited outbreak at Kongwa, two European married women and two European children attending Kongwa boarding school were reported within a few hours of each other to be suffering from symptoms suggestive of poliomyelitis which was subsequently confirmed. In this instance careful investigation revealed that all four patients had been associated with each other at various times during the previous three weeks and that the original case had come from Dar es Salaam where poliomyelitis was occurring during her stay there. Some apprehension was caused by the fact that the two children were pupils at a large boarding school. Thorough precautions were taken including the isolation and observation of contacts, fly destruction and the proper protection of food and drink; no further school cases occurred.



## *Leprosy*

39. The total number of cases of leprosy in Government and mission institutions at the end of the year were as follows:—

Government	...	...	568
Mission	...	...	3,606

This is but a small fraction of the number of cases estimated to exist in the Territory. The Inter-territorial Leprologist has given his opinion that the true number of active cases of leprosy throughout the Territory is of the order of 100,000.

40. There are in all fourteen leprosaria of varying sizes, and fourteen leprosy homes not recognized as leprosaria as well as a number of dispensaries where out-patient treatment is given. Three leprosaria are maintained by Government (either central or local) and the remainder by missions with Government financial assistance. British Empire Leprosy Relief Association staff has been provided for four leprosaria of which two belong to the central Government. The largest institutions are run by the Benedictine Mission at Ndanda and Peramiho in the Southern Province (over 1,000 patients are at Peramiho), and by the Medical Department at Makete in the Southern Highlands Province. A description of the activities of Makete leprosarium is given in Section XII B. Other major settlements are at Chazi (Government), Nkolondoto (African Inland Mission), Liuli (U.M.C.A.), Makutapora (Church Missionary Society) and Mkalama (Augustana Lutheran Mission).

41. In addition to the Government medical officer previously appointed for whole time leprosy duties, a second medical officer was appointed for this work during the year. It has accordingly been possible to provide a medical officer to develop leprosy work in an area not hitherto well provided with facilities for leprosy treatment, namely Tanga Province. His headquarters are at Muheza hospital.

42. The British Red Cross Society has generously donated £15,000 for a new hospital at the Government leprosarium, Makete, in the Southern Highlands Province. The construction of this hospital is well advanced.

43. Treatment of leprosy with sulphone drugs is being carried out on an increasing scale, so far with encouraging results. The drugs are issued free to all approved centres, including mission stations, where treatment can be given under qualified supervision. In most of the leprosaria there are many burnt out and quiescent cases who are no longer infectious and who do not require specific anti-leprosy therapy. The maintenance of these people is a social rather than a medical concern. Plans for leprosarium development provide that admission shall be restricted to active, preferably infectious, cases who are likely to benefit from specific anti-leprosy treatment. Patients must be under qualified medical supervision and be adequately housed, fed and cared for.

44. A sum of £23,000 was earmarked in the Medical Department Estimates for the maintenance and supply of Government and Mission leprosy institutions in 1952.



## 45. Tuberculosis

### TABLE III

RECORDED INCIDENCE OF PULMONARY AND NON-PULMONARY TUBERCULOSIS, 1952

<i>Pulmonary Tuberculosis:</i>	1952
Out-patients ... ..	1,410
In-patients ... ..	1,855
Deaths (In-patients) ... ..	306
Case fatality, per cent (In-patients) ... ..	16.49
 <i>Non-pulmonary Tuberculosis:</i>	
Out-patients ... ..	665
In-patients ... ..	551
Deaths (In-patients) ... ..	33
Case fatality, per cent (In-patients) ... ..	5.98

46. Except in the area around the Tuberculosis Hospital, Kibongoto, and to a lesser extent in Dar es Salaam where tuberculosis beds are provided at the Infectious Diseases Hospital the Territory has no organized system of tuberculosis control. Cases diagnosed at district hospitals as suffering from tuberculosis are sent to Kibongoto if circumstances permit; otherwise the best possible arrangements are made locally. Depending on the local resources, various degrees of contact tracing and follow-up are carried out, but in the absence of trained field staff the scale on which this is done is very limited. It will be some years before a Territory-wide tuberculosis control service can be provided. The first stage towards this goal will be a tuberculosis survey of the Territory whereby it will be possible to map the areas most heavily infected and plan a programme of control.

47. The activities of Kibongoto Hospital are described in Section XII B of this Report.

## 48. Dysenteries and Enteric

### TABLE IV

REPORTED INCIDENCE, 1952

<i>Amoebic Dysentery:</i>	1952
Out-patients ... ..	771
In-patients ... ..	442
Deaths (In-patients) ... ..	19
Case Mortality (In-patients) per cent ... ..	4.3
 <i>Bacillary Dysentery:</i>	
Out-patients ... ..	1,644
In-patients ... ..	530
Deaths (In-patients) ... ..	26
Case Mortality (In-patients) per cent ... ..	4.7
 <i>Undefined Forms of Dysentery:</i>	
Out-patients ... ..	6,570
In-patients ... ..	666
Deaths (In-patients) ... ..	45
Case Mortality (In-patients) per cent ... ..	6.8
 <i>Enteric Fevers:</i>	
Out-patients ... ..	—
In-patients ... ..	352
Deaths (In-patients) ... ..	47
Case Mortality (In-patients) per cent ... ..	13.3



49. Until the country is provided throughout with satisfactory water supplies and standards of sanitation improve, these diseases will continue to be with us. Here and there, year by year, mainly in urban areas, improvements are reported. The Assistant Director of Medical Services, Eastern Region, reports that since the advent of a reasonably good water and milk supply at Lindi, the town is no longer a "black spot" for typhoid. On the other hand, he reports a high incidence of typhoid and dysentery from sisal estates in the region. In the Western Region, it is reported that typhoid is uncommonly met with, but the dysenteries constitute one of the commonest groups of diseases diagnosed in hospitals and dispensaries. It appears to be wholly endemic, which, indeed is a characteristic feature of the intestinal infections in rural communities in East Africa.

50. The sudden outbreak of typhoid at Tosamaganga Mission School in the Southern Highlands Province was described in the opening chapter. This is the only occasion on which an intestinal infection of bacterial origin on an epidemic scale was notified during the year.

### 51. Venereal Diseases and Yaws

TABLE V

REPORTED INCIDENCE, 1952							
<i>Syphilis:</i>							
Out-patients ...	...	...	...	...	...	...	36,037
In-patients ...	...	...	...	...	...	...	2,609
<i>Gonorrhoea:</i>							
Out-patients ...	...	...	...	...	...	...	18,368
In-patients ...	...	...	...	...	...	...	4,290
<i>Other Venereal Diseases:</i>							
Out-patients ...	...	...	...	...	...	...	7,082
In-patients ...	...	...	...	...	...	...	247
<i>Yaws:</i>							
Out-patients ...	...	...	...	...	...	...	14,458
In-patients ...	...	...	...	...	...	...	1,417

52. It may be of interest to note that the incidence of yaws is highest in the Southern Province and those parts of the Western Province which are relatively remote from medical activities and it may be that the recent decline in reported cases represents the result of medical treatment in those parts of the Territory well provided with medical treatment facilities.

53. There is no decline in the number of cases of venereal diseases coming for treatment. This is not surprising; venereal disease is a symptom of the social complexities arising from the loosening of tribal sanctions and the increasing impact of economic and social stresses on the traditional tribal way of life. Venereal disease cannot be effectively controlled other than by improving the social environment, and medical measures, valuable as they are, must always be secondary to social development.

54. The true incidence of venereal disease in Tanganyika is not accurately known, but hospital records indicate that it is common in some areas and relatively uncommon in others. A venereal disease control campaign, financed by the local Native Authority was launched during the year in Bukoba District



and is administered by officers of the Medical Department with the assistance of the East African Medical Survey Unit. The object of the East African Medical Survey Unit in this campaign is to ascertain the incidence and distribution of venereal disease among the population of Bukoba District, to assess its social and medical significance and to devise suitable methods of treatment. The campaign is associated with vigorous measures in the field of social development and of community health, including child and maternal welfare.

#### 55. (B) VECTOR BORNE INFECTIONS

##### *Plague*

TABLE VI

REPORTED INCIDENCE, 1948-1952

	1948	1949	1950	1951	1952
Cases ... ..	312	18	Nil	263	573
Deaths ... ..	178	14	Nil	40	100
Case Mortality per cent ... ..	57.05	77.77	-	15.21	17.45

56. The three epidemics of plague which occurred simultaneously towards the end of 1951 in Mbulu District (Northern Province), Same District (Tanga Province) and Singida District (Central Province) continued into 1952, but the Mbulu and Same outbreaks had completely subsided by the end of January.

57. The Singida epidemic continued until the beginning of May, after which no further cases occurred until the middle of July, when a fresh outbreak began and sporadic cases continued to appear up to the end of the year. During 1951 and 1952, this outbreak alone accounted for 345 cases with forty-five deaths.

58. Another small outbreak occurred in the Central Province in an isolated part of Manyoni District which is contiguous with Singida. It was first discovered at the end of March; the usual preventive measures were taken and the number of cases occurring decreased steadily as the year progressed. In October a sharp but limited outbreak (seven cases, one death) occurred at Itigi (Manyoni District). Concern was felt by reason of Itigi being an important road/rail junction linking the central railway line with the Southern Highlands Province. Vigorous preventive action was taken and no spread along the lines of communication occurred. In this outbreak 302 cases and forty-eight deaths were notified. By the end of the year epidemic plague had disappeared in Singida and Manyoni; all that remained was an occasional sporadic outbreak involving a few cases.

59. In common with the general pattern of plague in East Africa, these outbreaks were confined entirely to rural areas and the distribution was widely scattered. At no time was there any tendency for the disease to become established in urban centres or along lines of communication. There seems little doubt that the primary reservoir and source of spread were field rodents, as yet unidentified, rather than the human and domestic rat. Had infection spread to the latter on any considerable scale, it is highly probable that the disease would have spread to the towns and along the roads and railways. There is little evidence that the application of onerous restrictions on the normal movements and activities of the population within the affected areas have influenced in any way the progress of this type of rural plague during recent outbreaks.



60. In all outbreaks, preventive measures taken included the following:—

- (a) The speedy discovery, isolation and treatment of cases.
- (b) Quarantining infected areas.
- (c) Disinsectization of huts, hide and cotton stores, road and rail vehicles, etc., with gammexane (0.5 per cent) or D.D.T. (5.0 per cent) dusts, with or without pyrethrum.
- (d) Dusting patients and contacts with residual insecticide powders, throughout the area, together with their bedding and clothing.
- (e) Protective inoculation of persons at risk (subsequently abandoned as probably useless).
- (f) Local intensification of all anti-rodent measures.
- (g) Establishment of emergency field hospitals for treating plague cases.
- (h) Use of streptomycin or sulphathiazole or both in the treatment of cases.
- (i) Intensified public health propaganda.

61. As indicated above, the course of events did not suggest that restriction on human movements and the transport of merchandise within the affected area favourably influenced the course of the disease. Nor was there any evidence that protective inoculation with anti-plague vaccine was of any value, and its use was abandoned early in the year.

62. The foregoing measures necessitated the rapid assembly in affected areas of medical, health and nursing staff from provincial and territorial bases. Other departments gave invaluable aid, as did the staffs of local missions and industrial concerns.

63. It is considered that the low case mortality in the recent outbreaks was primarily due to early treatment with streptomycin which gave dramatic results. The majority of deaths which have occurred have been among cases discovered too late to receive effective treatment. There is usually a considerable time-lag before reports of the first cases come in from the more remote areas with the result that mortality during the period before control can be effected is invariably high. Further reference to streptomycin therapy in plague will be found in Section XIX.

64. Routine rat control measures are undertaken in all urban areas; in addition, routine laboratory examination of rodents for plague infection is carried out both in Dar es Salaam and Tanga.

#### 65. *Sleeping Sickness (Human Trypanosomiasis)*

TABLE VII

REPORTED INCIDENCE, 1948-1952

	1948	1949	1950	1951	1952
Cases	681	1,412	974	477	346

66. Since 1949 when 1,412 cases of this disease were reported, there has been a progressive decline in the incidence of sleeping sickness in all parts of the Territory, except in the Northern Province where there was a small localized outbreak south of Lake Manyasa in Mbulu District. The outbreak began with the notification of nine cases in November, 1951. There was a sharp rise in incidence the following March and about 100 cases altogether were diagnosed in this area during the year. Since June the number of cases reported declined steadily and the situation is now under control. During the early stages of the outbreak the rains at the end of 1951 made control measures difficult,



and the first attempt in December to reach the area failed owing to floods. In February, a Government medical officer and a field officer of the East African Tsetse and Trypanosomiasis Research Organization succeeded in reaching the area. In June a quarantine was imposed and protective clearings started.

67. The Western Province continues to provide most cases annually, more than one half of the total recorded in the Territory; the areas particularly implicated are as usual, Kasulu, Kibondo and Kahama districts, together with the western part of Tabora District. Areas of lesser endemicity exist in all other provinces except the Central and Southern Highlands where almost complete freedom from the disease at present prevails. The causative organism of almost all the sleeping sickness reported in this Territory is *T. rhodesiense*. Co-operation with administrative and field settlement officers employed by the Provincial Administration is good and through their agency the population at risk is examined periodically for evidence of sleeping sickness. Most cases are now detected and given effective treatment at an early stage of the disease. In the control of this disease, special importance is attached to early case finding and the resettlement of populations exposed to infection in areas free from fly infestation. In treatment, chief reliance is at present placed on antrypol and most sufferers respond well to treatment. Mortality is very low because the majority of cases are discovered and treated in an early stage of infection.

68. Sleeping sickness control measures are supervised by the Sleeping Sickness Specialist who is responsible directly to the Director of Medical Services. His headquarters are at Tabora in the Western Province. He is responsible for the organization of early case finding and treatment and generally for supervising and advising on the work of settlement officers employed by the Provincial Administration. Mention should be made of the excellent work of these settlement officers; although not in any sense members of the Medical Department, their work is essential to successful sleeping sickness control and it can be said with confidence that in no area covered by a settlement officer and his scouts is sleeping sickness likely to appear on an extensive scale without being detected at an early stage.

69. Associated with the measures above described are the activities of the Department of Tsetse Control and the East African Tsetse and Trypanosomiasis Research and Reclamation Organization of the East Africa High Commission, with a research station at Shinyanga in the Lake Province. The latter organization, although playing no direct part in sleeping sickness control, is closely interested in this work and is available for technical guidance and advice as required.

#### 70. *Malaria and Blackwater Fever*

TABLE VIII

REPORTED INCIDENCE, 1952

	1952
<i>Malaria:</i>	
Out-patients ... ..	105,933
In-patients... ..	15,824
Deaths (In-patients) ... ..	367
Case Mortality per cent (In-patients) ... ..	2.3
<i>Blackwater Fever:</i>	
Out-patients (treated in quarters) ... ..	5
In-patients... ..	25
Deaths (In-patients) ... ..	6
Case Mortality per cent (In-patients) ... ..	24.0



71. As in 1951, the East Africa Malaria Unit at Amani, aided by Medical Department staff, supervised anti-malarial activities in Tanganyika. The establishment of departmental senior service officers seconded to the Unit for malaria duties now comprises one medical officer, two entomologists and five field officers. The increased establishment permitted more time and attention to be given to anti-malarial work in townships than had hitherto been possible.

72. It is hoped eventually, to have a malaria field officer in each region. So far, it has been possible to post one in the Western Region (at Tabora), another in the Eastern Region (at Mtwara) and a third in the Northern Region (at Amani).

73. The work of cataloguing the incidence of malaria by means of blood parasite and spleen rates was continued throughout the year.

74. The training of African malaria control staff increased in 1952. When not in attendance at Amani for formal training, students carry out practical control duties in townships throughout the Territory under the guidance of the more experienced graded staff. The task of building up staff trained and experienced in control techniques with sufficient theoretical knowledge to apply these techniques with discrimination is inevitably a slow one and cannot easily be accelerated. Nevertheless, the increase of trained staff in the districts has resulted in improved efficiency and an improved return for the funds expended on malaria control. In an increasing number of townships malaria is no longer accepted as an inevitable hazard.

75. On the other hand, little progress has so far been made in certain areas, notably Mwanza Township, owing to the formidable drainage and other local problems which remain to be solved. Rural areas must be included in this category; progress here must wait, not only on a much larger body of trained staff and lower costs of control methods, but (in the case of hyperendemic areas) on greater knowledge of malaria immunity problems in hyperendemic areas. In these areas, reduction of malaria incidence among the resident population may disturb the immunity balance between host and parasite. The effect of such disturbance may well have repercussions on general health and resistance to disease.

### 76. *Relapsing Fever*

TABLE IX

REPORTED INCIDENCE, 1952

	1952
Out-patients ... ..	1,291
In-patients... ..	1,231
Deaths (In-patients) ... ..	22
Case fatality per cent ... ..	1.7

77. Relapsing fever continues to predominate in the Western Region, where it is reported that the disease remains prevalent. It is frequently resistant to treatment and is considered one of the major causes of ill-health in the Region. In the Eastern Province, there has been a marked decline in incidence and Morogoro, the provincial headquarters, once an important focus of the disease owing to the traffic of sisal estate labour through the district, is now almost free of the infection. No unusual incidence occurred in either the Central or the Northern Province.



78. In most townships, dusting of huts with five per cent D.D.T. or 0.5 per cent gammexane powder is an established, even popular, routine, but for obvious reasons, it is not yet possible to extend this measure on a large scale to the reservoirs of infection in rural reserves.

79. Under a Colonial Development and Welfare Research Scheme sponsored by the Colonial Medical Research Committee, Dr. G. A. Walton is investigating the entomological aspects of relapsing fever in East Africa, and during the year under review he carried out a survey of the vector tick *O. moubata* in the Usambara Mountains and neighbouring localities near the Kenya border. The object of the local survey was to ascertain why sharp epidemics of relapsing fever occur in neighbouring areas of Kenya where the incidence of human biting ticks is low. It was thought that the epidemics might be caused by ticks brought across from Tanganyika.

80. The results of the tick survey of the Usambara Mountains area lend support to this theory. It was shown that the Usambara Mountains are a heavy reservoir of human biting forms of *O. moubata* and that the further one went from the lowland of Kwale up to and into the Usambara Mountains, the higher became the proportion of ticks which fed on human beings in preference to domestic fowls. In spite of the very high tick infestation in the mountain area, the incidence of relapsing fever is not great, evidently owing to the high standard of immunity obtained by the indigenous population over the years.

81. In 1953, Dr. Walton's Unit proposes to visit the Western Region of Tanganyika, in particular the Lake Province, to investigate the reasons for the high incidence of the disease in that part of the territory.

### (C) HELMINTHIC INFESTATIONS

#### 82. *Schistosomiasis and Ankylostomiasis*

TABLE X

REPORTED INCIDENCE, 1952

<i>Schistosomiasis:</i>								1952
Out-patients	...	...	...	...	...	...	...	14,740
In-patients...	...	...	...	...	...	...	...	2,323
Deaths (In-patients)	...	...	...	...	...	...	...	15
Case Mortality (In-patients) per cent	...	...	...	...	...	...	...	0.6
<i>Ankylostomiasis:</i>								
Out-patients	...	...	...	...	...	...	...	24,029
In-patients...	...	...	...	...	...	...	...	5,454
Deaths (In-patients)	...	...	...	...	...	...	...	82
Case Mortality (In-patients) per cent	...	...	...	...	...	...	...	1.5

83. Infestation by one or other of the major helminthic diseases is high throughout the Territory and in some areas is known to reach no less than 100 per cent. At the same time, no reliable facts have yet been adduced as to the effect of such infestation on health and physical efficiency. It has been suggested that a symbiotic relationship exists between the African and the parasites with which he is in close and continuous contact and that symptoms only arise if the relationship is disturbed by abnormally heavy infestation or by some extraneous factor such as an attack of intercurrent illness, dietary deficiency, etc., resulting in a lowering of his general resistance. From this it is argued that the African does not generally suffer unduly from his worms.



Such a view is supported by the fact that sickness incidence attributable to helminthic infestation is remarkably low in relation to the numbers of persons infested. This view is opposed to the widely held theory that wholesale infestation with worms, with resultant anaemia and general debility, is a basic cause of the low efficiency of the African labourer and his overall inability to compete on level terms with the foreign immigrant.

84. The elimination of helminthic infestation will be a long and exacting task. It is obvious that a purely curative approach would be fruitless. To cure a man of his infestation only to return him to his home where he will become re-infested can scarcely be expected to have the slightest effect on its incidence. The only effective course lies in destroying the means by which the parasites are spread, that is by raising the standards of personal and communal hygiene and above all ensuring the efficient disposal of human excreta.

#### IV.—MATERNITY AND CHILD HEALTH

85. TABLE XI

SUMMARY OF MATERNITY WORK, 1951-1952

<i>Government and Native Authority Centres:</i>			Confinements			Ante-natal Attendances			
			1951	1952	1951	1952			
Central Region ...	...	3,369	...	2,447	...	5,431	...	2,320	
Eastern Region ...	...	337	...	520	...	717	...	673	
Northern Region ...	...	2,935	...	3,116	...	4,569	...	6,415	
Western Region ...	...	4,521	...	4,634	...	7,562	...	11,999	
Dar es Salaam ...	...	1,271	...	1,414	...	1,260	...	1,906	
Totals ...			12,433	...	12,131	...	19,539	...	23,313
<i>Mission Centres:</i>									
Central Region ...	...	3,200	...	2,855	...	3,735	...	3,565	
Eastern Region ...	...	1,679	...	1,663	...	2,340	...	3,264	
Northern Region ...	...	1,066	...	2,166	...	3,017	...	7,650	
Western Region ...	...	4,774	...	4,234	...	8,184	...	8,975	
Totals ...			10,719	...	10,918	...	17,276	...	23,454

86. An ever-increasing demand for more skilled help in childbirth is becoming apparent. In view of the high cost of building and institutional services, efforts are being made in the larger centres to meet the demand by the encouragement of domiciliary midwifery for normal confinements. Ante-natal clinics are enlarging and are, to a greater extent, facilitating the separation of those women who are likely to require institutional delivery from those who may be attended in their homes.

87. In Dar es Salaam and Tanga the African Maternity Hospitals are separately sited and distinct from the general hospitals. Elsewhere, at all major district hospitals, the maternity and child health unit is within the curtilage of the general hospital. The number of units outside the larger district hospitals undertaking ante- and post-natal and child health work is still limited, but with the increase of senior nursing staff it is becoming possible to extend these services to districts and rural centres not hitherto provided. Health visitors are in charge of maternity and child welfare work at eleven centres, inclusive of Dar es Salaam and Tanga.



88. Attendances at all maternity and child welfare clinics at Government and mission hospitals continue to rise as African women become increasingly persuaded of the benefits to be obtained.

89. To enable child and maternity care and the teaching of domestic and personal health to be taken to the homes of the people by means calculated to gain the confidence of the womenfolk, selected girls of mature age and character are being trained as public health nurses under the Medical Department's training programme. Twelve girls began a two-year course of training at Tukuyu in January, 1952. The annual intake of this course will be twelve, eventually to be doubled when accommodation permits. The course includes midwifery, child care, general nursing, nutrition, domestic and village hygiene, homecraft and first aid. On completing the course, the nurses will work at rural maternity and child health centres and will undertake domiciliary visiting. They will be under the supervision of health visitors. Older women who are likely to have greater influence in the villages are preferred for this type of work and it is hoped that they will eventually exert a valuable influence on community health.

90. Associated with the training of health nurses under the Department's medical training programme, is a scheme for the training of "village nurses" for subsequent employment by local native authorities. Training is undertaken by approved missions and financed by the central Government or native authorities. The aims of this scheme and the duties which the nurses will be required to undertake are in the main identical with those described for health nurses.

91. "Practical midwives" for domiciliary midwifery in urban and semi-urban areas are being trained at some district hospitals, notably at Tabora. They receive no formal or academic course of training.

92. The training of certificated midwives increases, and public opposition to this form of training is decreasing. The midwifery course also includes infant welfare teaching. Unfortunately, as with all other types of training, insufficient accommodation exists to train the numbers required.

## V.—SCHOOL HEALTH

93. Although there is no separate school medical service, district medical officers are charged with the responsibility of supervising the health of school children within their areas and increasing attention is being paid by the Department to this aspect of public health. Where possible, periodic medical examination of children attending Government and Government aided schools is carried out and school premises inspected. Where medical examinations reveal conditions susceptible to treatment, appropriate measures are taken; a recent development has been the completion of arrangements for the eye testing of school children by an ophthalmic specialist during periodic visits to the principle centres of the Territory. Where necessary, spectacles are prescribed at the expense of parents if they are in a position to pay; otherwise they may be provided at Government expense.

94. Reports from many districts continue to emphasize that the health of children at boarding schools is much better than that of children attending day schools, the unhealthiest children usually being in the smaller primary schools.



95. During the year, a medical officer continued to be responsible for school medical services in Dar es Salaam. The state of health and the cleanliness of pupils were reported to vary widely at different schools. Parasitic infections had a high incidence and a disturbingly high proportion of children attending some schools appeared to be ill-nourished, ill-clad and showing signs of apparent neglect. It was frequently possible to relate the state of the children's physical condition directly to the home conditions of the individual pupils and to the attitude of the teachers. In some instances the beneficial influence of the school environment on health and well-being was plainly apparent as illustrated by the excellent standards attained by the Government African (Girls') School, the St. Joseph's Convent School and the Government Indian School.

96. No serious outbreak of disease in schools was reported during the year except for the typhoid outbreak at Tosamaganga boarding school, and four cases of poliomyelitis at Kongwa European School at the end of the year. These outbreaks are described in Section III of this report (Communicable Diseases).

## VI.—HEALTH EDUCATION

97. Systematic instruction in hygiene is included in the official curricula of the Education Department. District medical staff supplement this instruction, where opportunity offers, by giving talks on health and simple hygiene in schools in their districts. Health visitors in the districts are devoting increasing attention to the educative aspects of their duties and it is anticipated that their efforts will be considerably augmented when the new health nurses, now in training at Tukuyu, and the village nurses being trained by the missions enter the field of rural health work.

98. The value of health education is attracting the attention of some of the more enlightened tribes. For example, it is playing a large part in the mass literacy campaign among the Wapare.

99. A series of talks on a variety of health subjects was delivered at Dar es Salaam through the Territory's broadcasting system. The talks were prepared and arranged by the Chief Instructor of the Medical Training School and the students co-operated in their preparation and delivery. The subject matter was varied and stimulated wide public interest; the "Radio Doctor" has indeed become a popular and well established feature of local broadcasting. In addition to the radio talks, full and regular use was made of the local vernacular press in publishing articles of public health interest; all the radio talks were subsequently published after being suitably adapted.

## VII.—NUTRITION

100. There is ample evidence of impaired nutrition among large sections of the African population. It is true that frank cases of nutritional disease are not often seen (and then only during times of prolonged drought or food shortage); but less evident manifestations of defective nutrition are common, the reason being that, except in the more fertile regions, most Africans exist on a subsistence diet. The paucity of this diet cannot be attributed entirely to adverse climatic conditions. Some of it is undoubtedly due to the unwillingness of many Africans to exert themselves more than is necessary to produce barely



sufficient food for their family needs. Again, many prefer to cultivate lucrative cash crops at the expense of food crops, the proceeds being devoted only in small part to the purchase of foods of good nutritional value for themselves and their families. Such an attitude, while reasonable in a community where others produce more food than they themselves need, is liable to lead to disaster where a subsistence economy prevails.

101. Africans under some form of supervision, such as organized labour, police and military, and boarding school children are nearly always better off nutritionally than their independent brethren. Thus, regulations under employment legislation for the proper feeding of employed labour provide for a minimum scale of rations based on nutrient values and include a schedule giving analyses of local foods with suggested diets. Most employers of labour issue rations in uncooked form, but some concerns provide cooked meals and this practice is increasing.

102. Arrangements for the supplementary feeding of day-school children are still limited, but at some schools a midday meal is provided by the school authorities. The provision of special foods for expectant mothers is still rare, though the Tanganyika Branch of the British Red Cross Society assists to the best of its ability by the distribution of dried milks and other protective foods through Government and mission medical centres.

103. The Department was without a qualified nutrition officer for most of the year and it has not yet been possible to secure one. Government has decided to set up a widely representative Central Advisory Committee on Nutrition to consider and advise on matters relating to the production and distribution of food supplies for all sections of the population, in accordance with their nutritional needs.

104. Studies are being made on the properties of Tanganyika soils, and crop yield surveys are being carried out in various parts of the country. Such investigations will eventually contribute towards greater precision in the planning of food production. The Department of Grain Storage with its plan for providing strategically distributed bulk storage facilities for cereals is building up a valuable safeguard against the risk of seasonal famine.

105. In the foregoing paragraphs the problem of nutrition among the African community has been discussed to the exclusion of other races. It is among the African communities that malnutrition is most evident. But this does not mean that it is non-existent among other communities. It has been pointed out by the medical officer responsible for the medical supervision of children in Asian schools in Dar es Salaam that malnutrition occurs with some frequency among school children belonging to certain sections of the Asian community.

## VIII.—ENVIRONMENTAL HYGIENE

### (A) URBAN HOUSING AND SANITATION

106. The rapid development of the country's resources is producing an increasingly heavy demand for residential and building land and in many townships the number of available plots is insufficient to meet demand.



107. Among the most pressing housing problems are overcrowding among the Asian and African commercial and labouring classes within and around the towns arising from shortage of living accommodation and high rents. In the case of the lowest income groups rents are only too frequently in excess of what can reasonably be afforded and are an added incentive to overcrowding.

108. In Dar es Salaam good progress is being made in the development of government housing estates for Africans. Two- and three-roomed houses in permanent materials and of good design are being built for occupation by Africans at rentals intended to cover full capital costs including amortization. While the demand for this type of housing continues to press on building capacity, the lack of decent housing provision in urban areas for Africans of the lowest income groups—with its attendant social and sanitary complications—is disquieting. Experience elsewhere has invariably shown that the only solution seems to be cheaper housing (compatible with basic sanitary standards) or, alternatively, the charging of sub-economic rents.

109. With housing shortage and rising land values in townships has come the realization that single-storeyed buildings are no longer an economic proposition, and the trend of recent development is increasingly towards multi-storeyed buildings. The accommodation provided by these buildings is of course much greater than that provided by the single-storeyed type and the load placed upon the drainage systems is correspondingly increased. This development necessitates the planning and provision of adequate and modern means of drainage and sewage disposal: many of the existing systems are entirely inadequate.

110. The appointment of more health inspectors during the year enabled closer supervision of the sanitation of urban areas to be exercised than has hitherto been possible. Improvements in sanitary services mainly arising from the increased supervision and greater efficiency in the use of existing resources is reported in the case of several townships, but with the growth of populations a severe strain is being imposed on the slender budgets of township authorities, and conditions generally are still far from satisfactory.

111. In Dar es Salaam a modern water-borne sewerage system is being installed to serve, in the first place, the central part of the town. The sewers and outfall works are in an advanced stage of construction and it is anticipated that the new system will be in operation by 1954.

112. Mention might be made here of the cyclone which struck the Lindi area early in 1952. Considerable damage was caused to property, and public services and the sanitary system were disorganized. The combined efforts of the local authority, the local inhabitants and the Lindi branch of the Tanganyika Red Cross enabled a rapid return to be made to normal conditions, and there were no untoward public health complications.

113. The need for up to date building, drainage and sanitation legislation is becoming increasingly evident. A public health ordinance has been drafted and it is hoped it will be enacted during 1954. It has been decided to appoint a representative committee to draft a new code of building rules to be brought out under the Public Health Ordinance. An amended drainage ordinance and new drainage rules have been drafted and they await their passage into law.



## (B) RURAL SANITATION

114. In rural areas the approach to sanitary reform is necessarily slower than in the towns and is largely dependent upon the co-operation of the people. There are encouraging signs of an awakening interest in community sanitation in some districts. In Singida and Bukoba, to mention only two, the provision of sanitary latrines is progressing well. The Wapare too, are showing a keen interest in the hygienic development of their area. Nevertheless, a comment by the District Medical Officer, Lushoto, epitomizes the situation in most rural areas: "a large proportion of the houses have no pit latrines and in many of those which have the latrines are kept in a high state of cleanliness through disuse".

## (C) FOOD HYGIENE

115. Progress towards reasonable standards of purity, cleanliness and safety in the food handling trades continues to be slow. The main reason is the low prevailing standard of hygiene among retail food traders and their inability to supervise their employees.

116. An encouraging sign of an awakening public interest in food hygiene has been the introduction by the Township Authority, Mbeya, on a comparatively small scale as yet, of a "Clean Food Campaign". The success of such campaigns depends on a sustained public demand for clean food and on the co-operation of the local food traders. Of special concern, is the poor quality and deficient supplies of milk delivered within townships. Nearly everywhere demand is in excess of supply, and where this is derived mainly from local native producers, the shortage is usually met by the simple device of watering the milk, almost invariably from polluted sources. Fortunately, milk-borne epidemics rarely occur among the non-African community because the milk is almost invariably boiled before use.

117. During the year the Port Health Officer, Dar es Salaam, assumed responsibility for the sanitary control of foodstuffs in the port area. A system of routine inspection of imported food in the port godowns was instituted and is operating smoothly.

## (D) WATER SUPPLIES

118. Reports of progress in some areas and stagnation in others continue to be made. In some townships it has been found necessary to restrict or prohibit the making of new connections to water mains by reason of water shortage. Mwanza is fortunate in being able to draw its supply from Lake Victoria. Here, new balancing tanks were installed and considerable lengths of new mains laid. The water supply of Dodoma is minimal for the present populations and totally inadequate for further expansion. The Singida water supply is derived from eight wells, all of which are unsatisfactory in quality and quantity.

# IX.—INDUSTRIAL HEALTH

## (A) THE HEALTH OF LABOUR

119. The extensive migration of labour within the Territory during the year has not apparently contributed to the spread of communicable disease and the measures designed to prevent such occurrences seem to have worked satisfactorily. The only disease of importance which interfered with local movements



and the recruitment of labour was the plague outbreak in the Central Province. Among the measures imposed was a ban on recruitment from the infected areas. By the end of the year it was possible to raise the ban in the whole province except for one small area.

120. The health of employed labour is, in general, reported to be satisfactory. As remarked in previous years, the health of recruits on arrival at their places of employment has, on the average, been poor but most employers now realize that without a period of "conditioning", recruits cannot be expected to perform a full day's task without risk of deterioration in health. Where adequate rations are provided, it is uniformly remarked by labour officers that the health and morale of the labour force is markedly superior to that of labour on those estates which pay less attention to this important aspect of labour welfare. The medical examination of attested recruits by officers of the Medical Department continues to be carried out as in former years.

121. Improvements in medical facilities for employed labour are reported and it is noteworthy that with very few exceptions there is less reluctance among employers than formerly to provide these facilities. Most now seem to realize that a healthy labour force pays dividends.

#### (B) INDUSTRIAL DISEASES

122. Of the occupational diseases scheduled under the Workmen's Compensation Ordinance, anthrax again remains the only disease notified. Eleven cases with two deaths were reported under the Ordinance during the year. Of these, ten cases occurred in workers connected with the hides and skins industry, while one fatal case was that of a policeman searching a hut for stolen hides.

123. With the development of more potent insecticides for use in agriculture a new hazard has arisen. Many of these insecticides are extremely toxic to humans. So far, the only insecticide of this type in use in Tanganyika is D.N.O.C. (dinitro-orthol-cresol), the weapon of choice in the destruction of adult locusts. The International Red Locust Control Service use this insecticide extensively and for this reason a survey was carried out by members of the Medical and Labour Departments during 1952. The efficiency of the medical facilities supplied by the organization was reviewed and an assessment made of the field hazards arising from the use of D.N.O.C. The area in which the organization operates is difficult of access and by the very nature of its work, medical facilities are less satisfactory than are desirable. As a result of a conference attended by the Director of the International Red Locust Control Service, the Industrial Health Specialist and a representative of the Medical Department, plans for improvement of the medical service and for field control of the use of insecticides were agreed on and it is hoped that medical control will in due course be under the supervision of Government medical staff.

#### (C) THE HOUSING OF LABOUR

124. The year 1952 saw steady if unspectacular progress in the provision of satisfactory housing by employers. The rate of improvement understandably slowed down somewhat in view of the fact that previous years have shown concentrated effort by most of the employing concerns in improving living conditions. During the year the supply of materials for building improved considerably.



125. It is to be regretted that many of the smaller employers are apparently oblivious of the fact that the erection of temporary or semi-permanent structures is the most expensive method of housing their labour; this remark refers particularly to the small farming communities and to other concerns with smaller capital resources. A Labour Officer reported that on one of the largest employing concerns in his area there is some evidence to show that drunkenness, disputes and gambling predominate in temporary camps, while the better housing estates have an air of respectability leading to improved general behaviour and turn-out.

#### (D) THE FEEDING OF LABOUR

126. The year under review was not particularly difficult from the point of view of rations. Naturally, there were local shortages but in many cases these were the result of faulty distribution and not of crop failures. In view of many Africans' dislike for red palm oil a new edible oil, which contains adequate quantities of added vitamin "A", is being used instead. This product has proved extremely popular when introduced into the diet.

127. The provision of protein for employed labour in many parts of the Territory still presents considerable difficulty, but attempts are being made to rectify this by the importation of chilled meat products. Further, the veterinary authorities in the Southern Province are experimenting with building up herds of stock. Several employers in the Mbeya District are showing an interest in modern methods of fish farming.

#### X.—INTERNATIONAL AND PORT HEALTH

128. A notable feature of the year's activities in port health work was the adoption of the new International Sanitary Regulations, which require that unprotected persons leaving the Territory for yellow fever receptive areas must be vaccinated before their departure. The co-operation of air travel and shipping agents was readily forthcoming in ensuring compliance with this regulation.

129. During the year a new system for dealing with incoming shipping under the port health regulations was inaugurated in Dar es Salaam. The Pilot acts as the agent of the Port Health Officer and if the ship's Declaration of Health is satisfactory, grants pratique to the ship. Where the Pilot is not satisfied with the statements made on the Declaration he orders the quarantine flag to remain flying and the ship is then boarded by a member of the Port Health Office staff. This system has been found beneficial in that it enables agents, stevedores, etc., to commence work immediately the ship has moored.

130. No outbreaks of internationally important diseases have been reported from ports in this Territory and no reports of the application of restrictive measures against persons leaving Tanganyika for foreign countries have been received.

131. Close and informal liaison continues to be maintained with the medical authorities of Ruanda-Urundi, usually between the respective regional medical representatives, on all epidemiological matters of mutual concern. During 1952 sleeping sickness and smallpox were subjects of discussion and satisfactory agreements were reached in each case.



## XI.—PRISON HEALTH

132. The programme of prison re-construction and improvement of accommodation begun after the war, continued during 1952. Conditions are still far from satisfactory in many of the smaller prisons and native authority "lock ups" but progress is evident and continuing.

133. Adequate medical supervision of prisons is not always easy, mainly by reason of shortage of staff: nevertheless, efforts to improve the efficiency of supervision have continued during the year with some success. In order to improve the present facilities for the treatment of sick prisoners in district hospitals, it is planned to construct specially designed prison wards of adequate size in place of the unsatisfactory make-shift arrangements at present provided. Plans have been approved, for example, for the erection of a large new prison ward at Tabora hospital early in 1953.

134. Health in prisons throughout the Territory has been generally good, no epidemics or serious outbreaks of nutritional disorder having been reported. A few cases of pellagra reported from Bukoba prison responded rapidly to treatment.

135. An outbreak of venereal disease among the boys at Kazima Approved School in 1951 continued into 1952. The position had, however, much improved towards the end of the year.



## PART III—CURATIVE SERVICES

### XII.—HOSPITALS

#### (A) DAR ES SALAAM HOSPITALS GROUP

136. The Dar es Salaam Hospitals Group consists of the so-called European (or Ocean Road) Hospital (fifty-five beds plus eleven cots), the Sewa Haji Hospital (268 beds), the Infectious Diseases Hospital (164 beds) and the African Maternity and Child Welfare Unit (forty beds). The hospitals are administered by a board of management under the chairmanship of a senior member of the medical staff. A superintendent of hospitals is the chief executive officer.

137. A considerable amount of new building work took place during the year. A new maternity wing attached to the European Hospital, with sixteen beds, was completed but for the installation of essential fixtures. Although ordered by the contractor many months ago, they have not yet materialized. As a result, it was not possible to open the new wing by the end of the year.

138. Twelve additional beds have been added to the overcrowded Sewa Haji Hospital, eight in an additional temporary ward and four by the re-organization of existing accommodation not hitherto used for patients. A new sanitary block at the Maternity Hospital was completed. Thirty additional beds were added in the leprosy section of the Infectious Diseases Hospital for the accommodation of active cases of leprosy formerly housed at Nunge leprosy camp. Extra bathroom and lavatory accommodation at this hospital was also added during the year. The building of which part was formerly used as Medical Headquarters and part as a sisters' mess was converted (following the removal of Headquarters elsewhere) into a complete sisters' hostel. Including the existing quarters on the sea front, this provides accommodation for twenty-four nursing sisters, together with a flat for the Grade I Matron.

139. A quantity of radium, purchased with funds provided partly by a generous private donor and partly by Government, was installed at the hospital and a small radium therapy department was organized under the supervision of the Surgical Specialist.

140. The British Red Cross Society continued to do valuable work in all the hospitals within the group and it is a pleasure once again to record the Department's appreciation of the Society's services. Among its various activities are, at the European Hospital, the training of Asian assistant nurses for employment in the Hospital, the provision of a library and a "shopping service", the supplying of patients with handiwork and puzzles and the organization of a blood donor service. At the Sewa Haji Hospital, the Society provided occupational therapy, escorts for patients coming to and leaving hospital, the organization of a library, the supplying of "comforts" and the supervision of sea water bathing for cases of paralysis. At the Infectious Diseases Hospital, the Maternity and Child Welfare Clinic and Nunge Leprosy Settlement, similar services are carried out where appropriate, in addition to the provision of free dried milk at the Maternity Clinic. In addition, the Red Cross holds a Christmas party every year at all hospitals of the Group.



141. As a consequence of the improved staff situation it has been possible to post more nursing sisters to the Group and greater efficiency resulted. But the establishment of nursing sisters in Dar es Salaam still falls short of what is desirable.

#### (B) SPECIAL HOSPITALS

142. In addition to the Dar es Salaam group of hospitals, there are two special institutions, viz. Kibongoto Tuberculosis Hospital and Dodoma Mental Hospital which function independently of the regional administrative system, each being under the charge of specialized medical staff.

##### *Tuberculosis Hospital, Kibongoto*

143. This hospital is situated in beautiful surroundings on the lower slopes of Mount Kilimanjaro. 1952 saw the completion of new hospital buildings comprising wards for 240 beds and ancillary buildings and was opened on October 29th by His Excellency the Governor. It replaces a hospital which was built almost entirely of temporary materials. As well as the in-patient accommodation and administrative buildings, the new hospital possesses an operating theatre, X-ray rooms and admirable workshops intended for occupational therapy. The hospital system comprises a number of satellite dispensaries whose principal purpose is to provide out-patient supervision and treatment for tuberculosis as well as general medical aid when required. The dispensaries are an integral part of the service provided by the hospital. The tracing and examination of contacts is carried out from these units, and discharged patients attend for follow-up treatment and observation. Experience has amply proved that an organization comprising a central hospital supported by ancillary dispensaries for out-patient treatment and follow-up work is a highly effective means of combating pulmonary tuberculosis in this country. Surveys made in the district around Kilimanjaro within the area served by the Kibongoto system indicate that tuberculosis is on the decline.

144. Patients admitted to Kibongoto come from all parts of the territory and even beyond the territorial borders. In the following tables territorial distribution of in-patients treated are shown (Table XII) and the number of patients who were admitted, discharged and died (Table XIII).

TABLE XII

##### TERRITORIAL DISTRIBUTION OF IN-PATIENTS

<i>Africans:</i>						
Wachagga	...	...	...	...	...	366
Other Tribes, Northern Province	...	...	...	...	...	116
Central Province	...	...	...	...	...	22
Eastern Province	...	...	...	...	...	4
Lake Province	...	...	...	...	...	17
Southern Province	...	...	...	...	...	9
Southern Highlands Province	...	...	...	...	...	13
Tanga Province	...	...	...	...	...	147
Western Province	...	...	...	...	...	18
				Total Tanganyika	...	712
Zanzibar...	...	...	...	...	...	3
Kenya	...	...	...	...	...	41
Other African Territories	...	...	...	...	...	9
				Total Other Africans	...	53
<i>Non-Africans</i>	...	...	...	...	...	59
				Total In-patients	...	824



TABLE XIII

## ADMISSIONS, DISCHARGES AND DEATHS

Total cases admitted	...	...	...	...	569
Pulmonary T.B. cases admitted	...	...	...	456	} 569
Non-pulmonary T.B. cases admitted	...	...	...	113	
Pulmonary T.B. cases discharged	...	...	...	387	} 531
Non-pulmonary T.B. cases discharged	...	...	...	144	
Deaths from pulmonary T.B.	...	...	...	59	} 65
Deaths from Non-pulmonary T.B.	...	...	...	6	
In-patients remaining at end of year	...	...	...	...	293

*Mental Hospital, Dodoma*

145. The existing accommodation at this hospital suffices for 296 patients, of which twenty-seven beds are for Europeans and Asians and 269 for Africans. During the year increasing shortage of accommodation was a serious problem and to enable the hospital to admit new cases, the male patients' dining room was converted into a temporary ward. In addition, twenty patients were transferred temporarily to Msasani mental division of the Dar es Salaam hospital group and four permanently transferred to Lutindi Mental Hospital for chronic cases, maintained by the Augustana Lutheran Mission. As a result of these transfers and the discharge of a number of cases towards the end of the year, only 260 patients remained in the hospital on 31st December.

146. Work on a new admission ward of approximately twelve beds and a general ward of approximately twenty-five beds was begun in October, 1952. They were not completed by the end of the year.

147. A phased plan to enlarge the hospital to 500 beds (with the possibility of a second plan of expansion up to 1,000 beds) is now in jeopardy, owing to the grave shortage of water at Dodoma. It is unlikely that any further building expansion can take place until the town water supply is increased by the development of additional water sources and it seems unlikely that this will materialize for a long time.

148. Increases in the European technical staff during the year have permitted an improvement in the standard of treatment given (particularly in the field of insulin shock and electro-convulsant therapy) with encouraging results. Again, the death rate among patients has been relatively high and is due largely to the extremely poor physical condition of many patients on admission. Well over a third of the deaths took place during the first year.

149. There has been a considerable increase of land allocated to the hospital. It is intended for the anticipated additional wards and African staff accommodation as well as for livestock pasturage and cultivation by patients. Preparations have already been made for the introduction of cattle by the Veterinary Department early in 1953.

*Leprosaria*

150. Unlike the tuberculosis and mental hospitals, the two government leprosaria at Makete and Chazi are part of the respective regional organizations. Trained European lay workers at both institutions are seconded by the British Empire Leprosy Relief Association. In addition, a Government Medical Officer is stationed at Makete.



151. Much reorganization took place at Makete during 1952. In January, there were 1,055 persons resident. Patients of various categories totalled 647, whilst there were 408 non-infected persons. As a result of medical examination and classification during the year, 647 were discharged (a curious coincidence in numbers), leaving 347 infected persons and sixty-one non-infected persons in residence at the end of the year.

152. A new hospital donated to Makete by the British Red Cross Society at an estimated cost of £15,000 has already been started, the maternity block and one twelve-bedded ward being well on the way to completion.

153. Among other buildings completed or approaching completion at Makete by the end of the year were a B.E.L.R.A. Childrens' home, a crèche and a school extension. In addition, various buildings of temporary construction were completed.

### (C) DISTRICT HOSPITAL SERVICES

#### *Eastern Region*

154. Hospitals in the Eastern Region at which medical officers were stationed during the year are at Morogoro, Lindi, Kilosa, Songea, Mahenge and Mtwara. Before 1952, the two last-named districts had been without medical officers. At Mahenge, the hospital was re-conditioned and a broken down and dilapidated unit with a dangerous roof has now become a habitable hospital with over seventy beds.

155. The hospital at Mtwara was originally owned by a commercial company but was purchased by Government in 1952. It is soundly built although of semi-permanent construction and is staffed by a district medical officer, a nursing sister and an assistant surgeon. The assistant surgeon was transferred from the neighbouring Government hospital at Mikindani which was reduced in status to a bedded dispensary.

156. At Kilosa, where for a long time accommodation for females has been unsatisfactory, a twelve-bed women's ward was erected and put into use towards the end of the year. At Songea, a small out-patient block was built.

157. The old hospital at Lindi was severely damaged by a cyclone in April and emergency repairs were carried out to permit its continued use. Shortly afterwards work on a new hospital, one of the first to be built to the new departmental standard type plans, was begun. It is expected that it will be completed before the end of 1953.

158. At Morogoro, which has the largest Government hospital in the region, a new X-ray and an administration block and laboratory were completed.

#### *Northern Region*

159. Stations in this region staffed by medical officers are Moshi, Arusha, Mbulu, Monduli, Tanga, Lushoto and Muheza.

160. The European Hospital at Arusha has been particularly busy throughout the year by reason of the closure of a private nursing home. Additions and alterations to the female side of the African hospital were made during the year. The single ward block, housing both general and maternity cases, has been



modernized to provide a maternity unit of eight beds; in addition a twenty-six bed women's ward has been built. The inadequate out-patients' department has been improved by the addition of a waiting verandah which relieves some of the congestion inside.

161. With 165 African beds, the hospital at Moshi is among the largest in the Territory. A new isolation ward was added to the African hospital and another ward was renovated. Two quarters for female trained nurses were built and occupied. The work continues to expand and the daily average number of in-patients treated in 1952 was ten more than the previous year.

162. The number of in-patients treated at Mbulu hospital has steadily increased since a medical officer was posted there in 1951, but the buildings are inadequate and in a state of ruin. During the year it became necessary to abandon the operating theatre as unsafe and surgical operations are now carried out in a temporary room formed by dividing off a portion of one of the general wards with a curtain. A new hospital for Mbulu appears in the Development Estimates for 1953, a sum of £6,000 having been provided as a start.

163. The hospital buildings at Monduli were originally owned by the Native Authority, but at the beginning of 1952 they were handed over to Government. They form a satisfactory little hospital unit which is becoming increasingly popular among the nomadic Masai whom it is designed to serve.

164. No major developments took place at Tanga Hospital during the year apart from certain improvements to the European block. On the other hand a new African nursing trainees' hostel containing accommodation for approximately forty girls was completed and is fully occupied. A sisters' mess designed to furnish accommodation for thirty sisters in self-contained flatlets with provision for communal messing was begun during the latter part of the year and should be completed before the end of 1953.

165. At Lushoto the inconvenient little hospital will, one day, have to be rebuilt. In the meantime, the present buildings were considerably improved during the year and a local benefactor presented the hospital with an excellent temporary ward in wood construction for non-African patients. On completion, it will contain three single-bedded wards with a separate kitchen and sanitary accommodation.

166. Muheza hospital has a medical officer with special experience in leprosy. The purpose of this appointment is to supplement the existing general medical services with special provision for leprosy treatment. It is hoped that this side of the work at Muheza will steadily expand. Towards the end of the year work began at Muheza on the provision of a piped water supply for the hospital from a new dam being built by the Water Development Department.

167. Until the end of the year an assistant medical officer was stationed at Kingolwira Prison Farm hospital. Owing to a shortage of medically qualified officers, he has now been replaced by a medical assistant, additional cover being provided by regular visits from the District Medical Officer, Morogoro.



### *Central Region*

168. Districts with medical officers in charge of hospitals are Mbeya, Iringa, Tukuyu, Dodoma and Singida. The Assistant Director of Medical Services, Central Region, states that practically all the hospitals in this region are overcrowded, the worst being Dodoma, with Mbeya a close second. Iringa, formerly hard pressed, is now somewhat less so following the opening of a new twenty-five-bed ward during the year. Again, with the exception of Iringa, where a new out-patients' department completed in 1952 provides first class accommodation, all out-patients' units in the other major hospitals are poorly designed and quite inadequate.

169. Of the smaller hospitals, Singida is by far the most inadequate. This hospital is always full and hundreds of cases requiring in-patient treatment are turned away each year for lack of accommodation. The history of Singida hospital has been summarized by the District Medical Officer, Singida, as follows:—

“Singida hospital originates from the old German prison which was condemned as unfit for use as such in 1932; it was transferred to more adequate buildings. When the condemned prison buildings became vacant, a Government dispensary was established in them; it gradually became a bedded dispensary and eventually Singida District Hospital.”

170. The building of a new hospital at Singida is an urgent necessity. It has the highest priority in the Medical Department building programme, but because of the current financial restrictions on capital works development, there would appear to be little prospect at present of a new hospital being started.

171. The projected new hospital at Tukuyu intended to be built in 1949, has again been postponed owing to restriction of funds.

### *Western Region*

172. Medical officer stations in the Western Region are Mwanza, Bukoba, Musoma, Tabora, Kigoma, Shinyanga, Kahama and Kibondo, the three last named only since the second half of 1952. As well as three new medical officer stations, the region has benefited by the posting of a fifth nursing sister to Mwanza, a second nursing sister to Kigoma and a health visitor to Bukoba.

173. In Mwanza, a small building formerly occupied by the Filariasis Research Unit, was adapted for use as a dental unit. The operating theatre was re-wired to carry heavier electrical sterilizing apparatus. There has been a considerable increase of surgical work at the hospital.

174. At Musoma hospital, a new laundry was completed except for the water supply and internal equipment which awaits installation in 1953.

175. At Bukoba, a separate maternity ward was completed and brought into use. The installation of electric light in the theatre was also completed during the year. There was a considerable increase in the surgical work at this hospital during 1952, the number of major operations performed being almost double that of 1951.



176. A new isolation ward was completed at Tabora during the year and work was begun on a small ward for superior African patients and a new ward for sick prisoners, whilst further work was carried out on the new laundry block. In addition the African hospital was completely re-wired and much new equipment installed in the hospital. As in Mwanza, following the appointment of a medical officer with special surgical qualifications, surgical work has much increased; the hospital has also benefited in having the part-time services of a trained anaesthetist. The drainage system of the African hospital is highly unsatisfactory. The provision of a new system is held up pending a final decision on the direction in which the hospital will ultimately develop.

177. At Kahama, a piped water supply was installed during the year. Kigoma hospital benefited from a new out-patients' extension. At Nzega, which is under the charge of an assistant medical officer, a beginning was made on the replacement of the existing hospital by two standard twenty-six-bed wards and an isolation ward. The neighbouring maternity clinic under the charge of a health visitor maintains its high standard of work. Finally at Biharamulo, the bedded dispensary (under the care of a medical assistant) benefited by additional accommodation, an excellent new building being all but completed. This will provide a new female ward, maternity ward, labour room and operating theatre, while the former female ward will be used as an out-patients' department in conjunction with a small newly completed dressing room.

### XIII.—DISPENSARY SERVICES

178. The number and distribution of government dispensaries (central and native authority) together with attendance records are tabulated below. The table includes twenty government bedded dispensaries and ten government out-patient dispensaries, all under the charge of qualified medical assistants.

DISPENSARY SERVICES—TABLE XIV

Region	No. of N.A. and Government Dispensaries			Total No. of attendances recorded	
	1951	1952		1951	1952
<i>Central:</i>					
Central Province ... ..	41	44	...	384,662	504,390
Southern Highlands ... ..	54	53	...	735,521	816,266
<i>Eastern:</i>					
Eastern Province ... ..	79	80	...	550,351	487,663
Southern Province ... ..	30	36	...	189,295	259,368
<i>Northern:</i>					
Northern Province ... ..	51	53	...	399,236	411,637
Tanga Province ... ..	38	42	...	230,552	438,051
<i>Western:</i>					
Lake Province... ..	109	104	...	1,559,132	1,558,328
Western Province ... ..	60	61	...	668,587	639,196
Totals ... ..	462	473	...	4,717,336	5,115,899

179. To the African community in rural areas, the dispensary services provide the only contact with Western medicine, and it is necessary that the standards attained by rural dispensaries should be as high as possible. They vary from well equipped permanent institutions staffed by trained medical assistants or rural medical aids to tumble-down poorly equipped shacks in the care of untrained tribal dressers capable of little more than elementary first aid.



Dispensary standards vary widely in different parts of the Territory. Where the native authorities (who are responsible for financing the great majority of rural dispensaries) are wealthy, local standards are relatively high, but although adequate funds are necessary for the creation of a high standard of service, provision of adequately trained staff under close supervision by qualified medical and nursing staff is of even greater importance. The prevailing shortage of supervisory staff and rural medical aids together with the inaccessibility of many dispensaries at certain times of the year, renders it impossible to maintain satisfactory standards everywhere. The Southern Province is particularly badly off in this respect.

180. The work of standardizing drugs and equipment at dispensaries mentioned in last year's report continues, although a decision on the final form of standardization has had to be postponed until next year. The reason for this is that in 1952 the recently published Uganda Formulary was adopted for use as the official Tanganyika Formulary of which publication is expected early in 1953. The standard drug schedules for dispensary use will conform with the new Formulary and will be published at the same time.

181. In compiling the standard dispensary lists, emphasis is at all times placed on simplicity. Thus, in order to use the funds available for medical services to the best economic advantage, the cheaper drug is preferred to the expensive in all cases where it has equal or nearly equal therapeutic value.

182. Although it is the prime duty of the district medical officer to inspect and supervise rural dispensaries, it is to be noted that the wealthy Chagga Council employs an African assistant medical officer to help with the supervision of the dispensaries in the Chagga tribal area in an attempt to improve upon the service that the district medical officers in this region are at present able to provide.

183. The prospects of enhanced supervision in the Northern Region are considerably brighter for 1953 with the recent posting of an additional medical officer to Muheza and the proposed posting of another to Korogwe. A similar improvement may now be expected in the Western Region following the recent posting of district medical officers to Shinyanga, Kibondo and Kahama.

184. The supervision of rural dispensaries in the Central Region was severely handicapped during the year by the plague outbreaks which drew away staff normally occupied on this work. It tested the reliability of rural medical aids and in this connection the District Medical Officer, Singida, comments "It is worth noting that our rural medical aids known to be good kept up the standard set".

185. In the Eastern Region, a new Government dispensary at Ruponda was opened early in the year. An improvement is reported in the number of dispensaries inspected in this Region during the year, certain mission doctors assisting in this work. Communications are a great handicap in large areas of the Eastern Region and this has its effect on the training of rural medical aids.

186. Some new dispensaries are under construction in the Western Region, principally in the Bukoba and Geita districts, but on the whole emphasis has been on repair, maintenance and replacement of existing buildings.



187. In the Western Region, refresher courses for tribal dressers were organized at several hospitals. Refresher courses for rural medical aids were held at Dodoma.

#### XIV.—MORBIDITY AND MORTALITY EXPERIENCE IN GOVERNMENT AND MISSION HOSPITALS

188. Appendix V to this Report records the number of in-patients and deaths at Government and mission hospitals with resident doctors, and Appendix VI records the number of out-patients at the same hospitals. Dispensary attendances are given in Appendices VIII and IX.

189. In order to compare the relative importance of various disease groups, the figures given in Appendices V and VI have been combined under their respective headings, the incidence of the principal groups then being calculated as a percentage of the whole and illustrated in Diagram "A" (facing page 34). The same method has been adopted for deaths in these disease groups. This enables relative morbidity and relative mortality in respect of corresponding disease groups to be compared at a glance.

190. It will be seen that, as in previous years, by far the largest disease group is that caused by infection (Group I—Infective and Parasitic), which comprises 42·28 per cent of all cases attending hospitals for treatment, and 36·06 per cent of all those dying in hospital. Other disease groups behave much as one would expect; thus Group II (Neoplasms) comprises a minute proportion of the total morbidity, but a significant proportion of the total mortality; on the other hand, Groups XII and XIII (Diseases of the Skin, Bones, etc.) give rise to a large number of patients, but relatively few deaths. One of the most significant diseases as a cause of mortality is pneumonia. For this reason, in the illustration, it has been given special treatment. It will be seen that Group VIII, which includes all diseases of the respiratory system, comprises 12·10 per cent of all causes of morbidity and 15·54 per cent of all cases of mortality; thus morbidity and mortality roughly approximate. But within this group, pneumonia is seen to give rise to only 1·02 per cent of all cases of illness attending hospitals, while causing 14·20 per cent of all deaths occurring in hospital. Were it not for efficient modern drugs, particularly the sulphonamides and antibiotics, it is likely that this disproportion would be even more marked.

191. In Diagram "B" (facing page 35), Group I (Infective and Parasitic Diseases) has been sub-divided into the principal diseases comprising the group. Several striking facts are apparent. Malaria is the commonest illness in the infectious and parasitic disease group (26·43 per cent of all cases within the group) and is also a common cause of death (25·76 per cent of deaths within the group). Pulmonary tuberculosis produces one of the most striking contrasts in that it is seen to give rise to only 0·71 per cent of cases in the group, and yet is responsible for 21·13 per cent of the deaths in that group. It will be noted also that whooping cough is by no means the mild infection it is so frequently thought to be.

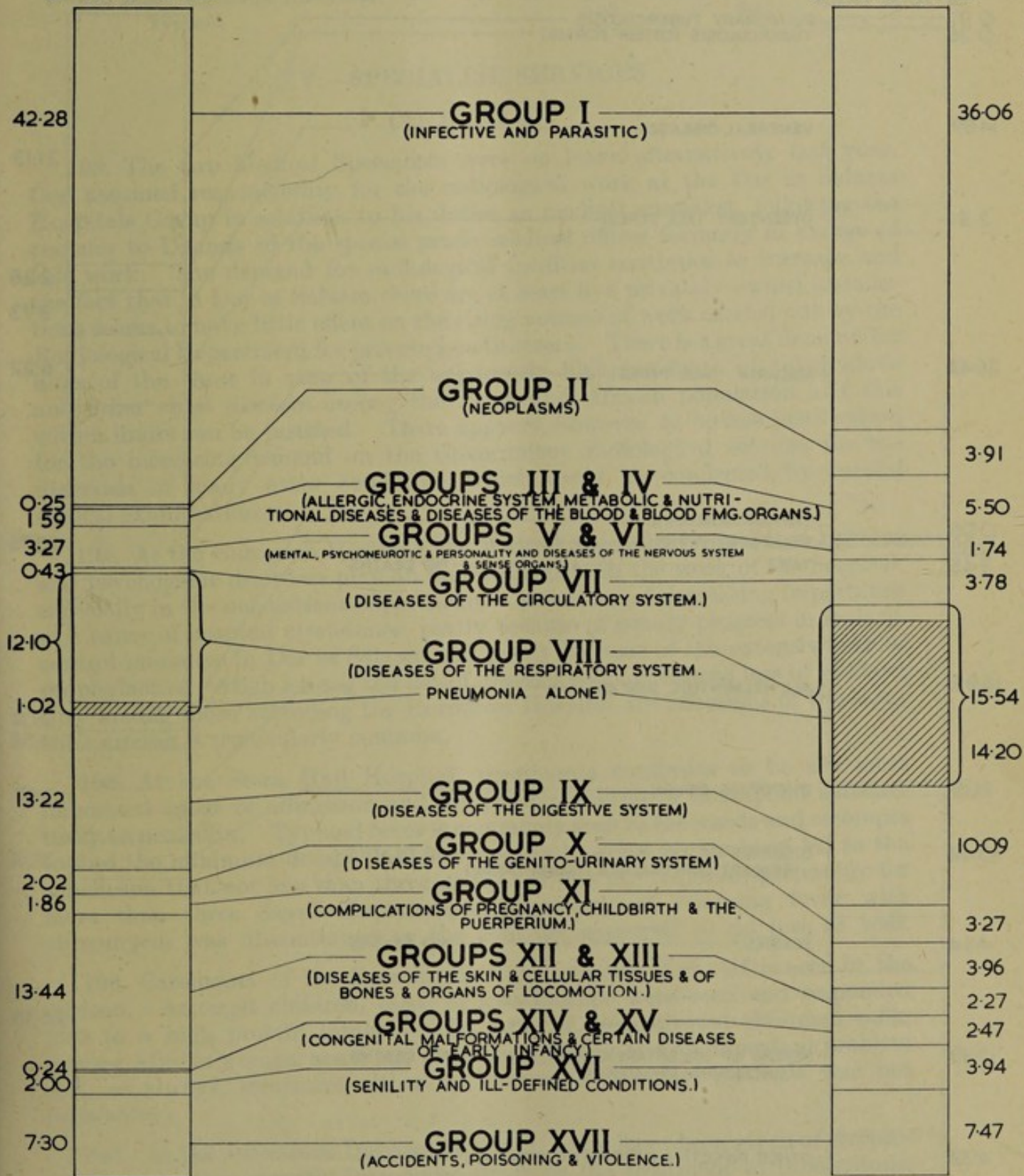
192. At the bottom of diagram "B" is a number of diseases classified as "Other Infective and Parasitic Diseases". These will be seen to comprise 4·32 per cent of cases within the Group, yet they are responsible for 26·38 per



# ALL DISEASES

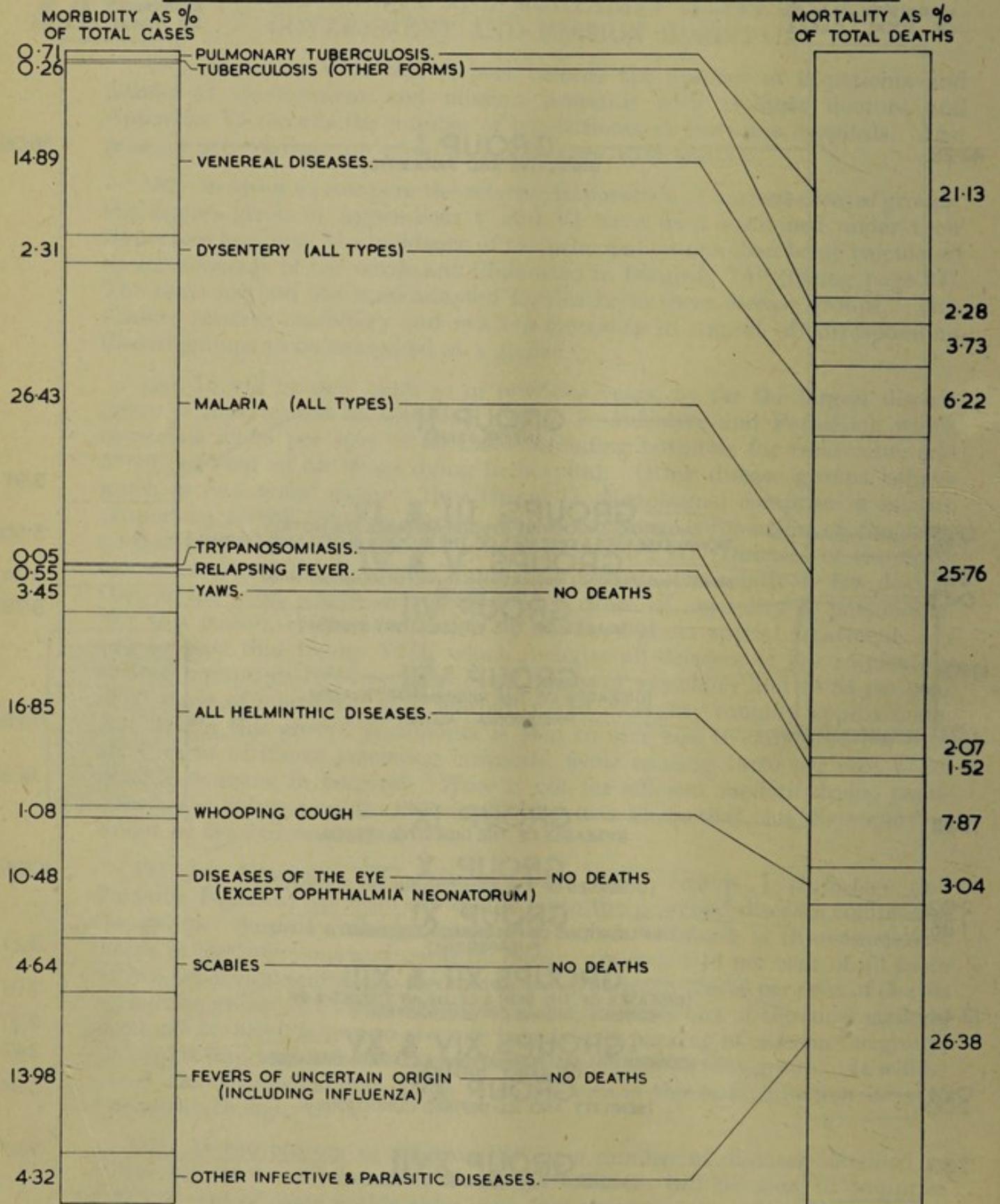
MORBIDITY AS % OF TOTAL CASES

MORTALITY AS % OF TOTAL DEATHS





# INFECTIVE AND PARASITIC DISEASES





cent of the deaths. This is because this small "sub-group" contains three diseases which, although extremely rare, have a very high mortality. The percentage morbidity and mortality figures within the group are:—

					Morbidity		Mortality
					%		%
Tetanus	...	...	...	...	0.05	...	7.11
Meningococcal Infections	...	...	...	...	0.07	...	10.29
Typhoid	...	...	...	...	0.07	...	3.17

## XV.—SPECIALIST SERVICES

### (A) MEDICAL

193. The two Medical Specialists were on leave alternatively last year. One assumed responsibility for the radiological work at the Dar es Salaam Hospitals Group in addition to his duties as medical specialist, following the transfer to Uganda of the special grade medical officer formerly in charge of this work. The demand for radiological facilities continues to increase and the fact that in Dar es Salaam there are at least five privately-owned installations seems to have little effect on the rising volume of work carried out by the Radiological Department for private practitioners. There is a great demand for films of the chest in view of the apparently high incidence of tuberculosis and other chest diseases among the Asian and African population and this within limits can be justified. There appears, however, to be less justification for the increasing demand on the Government radiological services for the diagnosis of many other conditions which could be confirmed by careful clinical examination.

194. At the European Hospital, the Medical Specialist reports that nervous and psychogenic disorders play an important part in the work of the hospital, especially in the out-patient department. Malaria is of decreasing importance as a cause of hospital attendance, partly because of steady progress in malaria control measures in Dar es Salaam and partly because of the extensive use of prophylactics. High among the list of diseases causing serious loss of working time among those attending the European Hospital are affections of the skin; *otitis externa* is particularly common.

195. At the Sewa Haji Hospital, pneumonia continues to be the most important cause of admission and fortunately continues to respond satisfactorily to penicillin. Typhoid fever is commonly seen in the wards and attempts to find the minimum dosage of chloromycetin to effect a cure have led to the conclusion that not less than three grams per day are required, preferably for more than three days. Experimental treatment of relapsing fever with aureomycin was discontinued as the controls appeared to do just as well.

196. Carcinoma of the liver is the most common form of cancer in the African. Amongst children, cases of kwashiorkor were seen and responded well to a high protein intake in the form of reconstituted skimmed milk. Among African women, acute and chronic salpingitis was an important problem and, as always, treatment either by medical or surgical methods was not satisfactory.

197. At the Infectious Diseases Hospital, trials have been given of streptomycin and other recently introduced drugs in the treatment of tuberculosis.



198. Further experience in the use of sulphones for the treatment of leprosy appears to indicate that the time taken to produce a cure, or at any rate a state of non-infectivity, is far greater than was originally thought.

#### (B) SURGICAL

199. During the year under review a special grade medical officer with higher surgical qualifications was posted to the Sewa Haji Hospital to assist in the work of the Surgical Division. A medical officer attached to the Medical Training School joined the surgical staff in the latter half of the year, a full time anaesthetist was appointed and the service of a full-time theatre sister were made available throughout the year. The beneficial effects of the increase in surgical staff was noticeable. The training of medical assistants in surgery was much improved, the supervision of surgical work in the out-patients department of the Sewa Haji Hospital was enhanced and the number of operations performed in the Group greatly increased—a total of 4,506 operations last year, compared with 2,085 in 1951. Of the operations performed in 1952, 446 were at the European Hospital and 4,060 at the Sewa Haji.

200. Orthopaedic and traumatic surgery provided the bulk of the emergency surgical work at the Sewa Haji Hospital where there was a very high incidence of compound fractures, especially those involving both bones of the leg.

201. Hernia, hydrocoele, tropical myositis and infections of the hand constituted the bulk of routine surgery. Cases of tropical ulcer continued to attend in large numbers; patients with large ulcers were admitted for treatment, which consisted of cleansing of the ulcer and subsequent skin grafting.

202. As in previous years several cases of post-operative tetanus developed in the Sewa Haji Hospital, all being fatal. In association with the Senior Pathologist, a very full investigation of the cause of this infection was carried out. It was established that, through the year, post-operative tetanus had been observed only in males and only in those operated on for hernia, hydrocoele or elephantiasis of the scrotum; it was also found that the ordinary pre-operative skin preparation for such cases did not destroy tetanus spores which were found in abundance in the skin of the scrotal and inguinal regions after routine preparation had been completed. Previous theories that tetanus was introduced into the theatres in dust from the adjacent harbour area was thus discounted. A very thorough two-day skin preparation of the scrotal and inguinal regions is now carried out, not for the purpose of destroying spores, which would be impossible, but to reduce to a minimum the chance of the post-operative sepsis which has been proved to be the condition which allows the activation of tetanus.

#### (C) OPHTHALMIC

203. A second ophthalmic specialist was appointed during the year and it is intended that both shall be stationed in Dar es Salaam. This will facilitate the expansion of the ophthalmic clinics in Dar es Salaam without interfering with regular tours upcountry by one or other specialist.

204. A total of 8,315 eye cases were seen in Dar es Salaam and 960 on tour, compared with 8,156 in Dar es Salaam and 624 on tour in 1951.

205. A small-scale survey carried out at Kibo by the Ophthalmic Specialist lent support to the view that one of the common causes of blindness in the territory is secondary infection of the eye by the gonococcus.



#### (D) DENTAL

206. The Senior Dental Surgeon returned from leave in July, one dental surgeon proceeded on leave in November, and one was posted to Mwanza to open a dental unit. The dental officer at Mwanza will be responsible for professional visits to the Lake and Western provinces. A medical assistant was seconded to the Dental Unit in Dar es Salaam and was employed at the Sewa Haji daily clinic.

207. Regular tours were undertaken to the main centres of the Territory and local arrangements remained in force whereby officers and their families in certain areas were able to utilize the services of non-Government dental surgeons.

208. There was a considerable increase in the demand for treatment by Africans at the daily clinic, Dar es Salaam. The medical assistant helped to ease the pressure of work on the dental officer and allowed him more time for major cases.

209. Conservative treatment was continued for African school children in Dar es Salaam and Tanga.

210. During the year the Dental Unit dealt with 17,377 attendances, 556 X-rays were taken, 422 dentures were made and 205 were repaired. Twenty cases of jaw injuries were treated.

#### (E) MENTAL

211. The post of Mental Specialist remained vacant throughout the year.



## PART IV.—ANCILLARY AND RELATED SERVICES

### XVI.—LABORATORY SERVICES

212. The Annual Report by the Senior Pathologist on the territorial laboratory services, is published separately. The following is, therefore, a brief summary of the activities of the laboratory services; for details, reference should be made to the full report.

213. The laboratory services of the Department are based on the Central Laboratory in Dar es Salaam. In 1952 the Senior Pathologist had the assistance of a pathologist and three laboratory superintendents, together with a number of African laboratory assistants.

214. The main functions of the Central Laboratory are:—

- (i) Training of laboratory assistant students, together with the organization of refresher courses for laboratory assistants.
- (ii) Diagnostic pathology in both the clinical and epidemiological fields.
- (iii) Research into local problems related to diagnostic pathology.

215. The Central Laboratory is the only one in which a complete range of pathological investigations can be made, although smaller laboratories in the charge of African laboratory assistants are maintained at eight of the largest centres in the Territory, where the more important investigations in current use can be carried out. The Central Laboratory is also responsible for the storage and distribution of vaccines and sera.

216. The Senior Pathologist expresses doubt as to the clinical significance to be attached to the high prevailing incidence of certain parasitic infections among the indigenous African population—of which the helminthiases and malaria are notable examples—and there is an increasing tendency for the mere presence of a parasitic infection, without apparent ill effect, to be treated as of secondary importance in assessing the significance of morbid processes. Instead, the aid of clinical pathology is being sought increasingly to determine pathological and deficiency states from which the patient is actually suffering and which are often overlooked by giving undue attention to the presence of a relatively benign parasitic infection. (See also para. 83).

217. During the year the buildings of the headquarters laboratory were completely overhauled and refurbished.

### XVII.—MEDICAL TRAINING

#### THE TANGANYIKA MEDICAL TRAINING BOARD

218. Prominent in recent development in the field of medical training is the new Tanganyika Medical Training Board. Although appointed in November 1951, it began its activities in 1952 during which five meetings were held. Syllabi and regulations for the training of medical assistants, laboratory assistants, pharmaceutical assistants and rural medical aids were drawn up and approved and the procedure laid down for the conduct of territorial examinations. Panels of examiners were appointed and final examinations for government and mission candidates were held in December under its auspices for medical and medical ancillary assistants and rural medical aids.



## NURSES' AND MIDWIVES' COUNCIL

219. The Nurses and Midwives Ordinance (No. 63 of 1952) was passed towards the end of the year. It provides for the setting up of a Nurses' and Midwives' Council, with powers, *inter alia*, to prescribe and regulate syllabi of instruction for nurses and midwives, to hold examinations, to issue certificates of registration and to regulate the professional practice and conduct of nurses and midwives.

### TRAINING COURSES

220. Both Government and missions have always employed trained Africans in the various branches of the medical, nursing and public health services; but until relatively recently, training was unorganized and was carried out under local arrangements without central direction. A comprehensive plan for the expansion of Government medical training was drawn up in 1951. The plan includes provision for a new medical and nursing training school with hostel accommodation for 500 in Dar es Salaam, a maternity training school at Tabora, a school for the training of health nurses at Tukuyu, extensions to the school for rural medical aids at Mwanza and a health training school for assistant health inspectors and health orderlies. The syllabi and training regulations for all categories of medical and public health workers have recently been comprehensively reviewed and brought up to date.

221. The following classes of medical, nursing and public health personnel are trained in Government institutions in this Territory for service with Government:—

(a) *Medical Assistants*.—A three-year course followed by a qualifying examination covering elementary medicine, surgery, nursing, public health and microscopy. The training school is at Dar es Salaam. Medical assistants are employed at hospitals and at some of the larger rural dispensaries for general medical duties.

(b) *Ancillary Medical Staff*.—These include laboratory assistants, pharmaceutical assistants and hospital steward's assistants. The courses are taken in Dar es Salaam and are of three years' duration leading to a qualifying examination at the conclusion of the course.

(c) *Rural Medical Aids*.—Rural medical aids undergo a two-year course in elementary medicine including first aid, microscopy and rural hygiene, for subsequent employment in rural dispensaries. The training school is at Mwanza. The course has a marked rural and public health bias.

(d) *Nurses and Midwives*.—Nurses are trained in a three-year course and midwives in a two-year course, ending with a territorial qualifying examination for the Government Certificates in Nursing and Midwifery. Government nursing training centres are at Mweka in the Northern Province and at Kongwa in the Central Province, recently taken over from the Overseas Food Corporation. There is an annual intake of upwards of thirty students per annum at Mweka and at Kongwa. At present, an equal number of males and females are recruited but it is intended to increase progressively the intake of females rather than of males as the number of girls with the requisite standard of basic education become available. The course for midwives is at present at Dar es Salaam, the average annual intake being of the order of ten. It is planned to open a new midwives' training centre at Tabora.



(e) *Assistant Health Inspectors*.—The training school for assistant health inspectors is at Kongwa. The course is of three years' duration and candidates sit for the examination of the Royal Sanitary Institute conducted by the Joint East African Examination Board. This course was opened at the beginning of 1952; twelve students were admitted in the first year to be increased to fifteen annually.

(f) *Health Nurses*.—A two-year course for health nurses was inaugurated at the beginning of 1952. It is held at Tukuyu in the Southern Highlands Province. The training given is described in Section IV, Maternity and Child Health.

(g) *Health Orderlies*.—A scheme for the training of health orderlies at the Health Training School, Kongwa, has been drawn up and commences in January, 1953. Health orderlies will undergo a twelve months' course of practical training and will be engaged in public health work mainly in rural areas.

(h) *Malaria Assistants*.—Two-year courses in mosquito control are held at the Malaria Unit at Amani under the direction of the Inter-territorial Malariologist. The training includes instruction in the identity and biology of mosquitoes and details of the methods of control.

222. In addition to Government training centres, nine missions undertake the training of nurses, midwives, medical assistants and rural medical aids to the Government syllabus leading to the territorial examinations and certificates. This training is subsidized by Government. In 1952 a sum of £6,880 was disbursed on grants-in-aid for the training of African medical and nursing staff at the various missions in the Territory.

223. In one district a scheme has been started whereby traditional or tribal midwives are encouraged to undergo a brief and very elementary course of maternity instruction by a member of the health staff at a selected maternity centre. The course lasts for about a week and the instruction is limited to teaching the importance of cleanliness, calling in medical aid at the proper time and abstaining from interference during confinement. At the same time a nominal roll of tribal midwives in the locality has been prepared by the District Medical Officer.

224. Particulars of the centres, both Government and Mission, where training is at present taking place, with an indication of the type of training given and the numbers of students who qualified in 1952, will be found in Appendix XIII.

## XVIII.—MISSION MEDICAL SERVICES

TABLE XVI

MISSION MEDICAL UNITS						Units	Beds
Hospitals with resident doctors	...	...	...	...	...	26	1,879
Units with more than twenty beds but without resident doctors	...	...	...	...	...	43	1,976
Dispensaries (including units with twenty beds or less)	...	...	...	...	...	22	376
						Total Beds	4,231
<hr/>							
Maternity and child health clinics (the majority of these are attached to the general hospitals or dispensaries)	...	...	...	...	...	...	53
Leprosaria	...	...	...	...	...	...	11



The great majority of the above-listed units are grant-earning. In addition, there are a number of dispensaries without certificated staff which are not grant-earning.

225. The medical services provided by the missions are given practical recognition in the form of government grants. The distribution of grants in 1952 is shown in Table XVII below. Allocation of grants is based primarily on the numbers of qualified medical and nursing staff employed. That the Government subsidies have helped the missions to expand during the last few years is illustrated by the rapid increase in the annual total of grants paid. This figure has risen from £8,981 in 1947 to nearly £56,000 in 1952.

226. During 1952 government policy towards the missions was further defined. As a result it is expected that the subsidizing of mission rural dispensaries will gradually become a matter for the native authorities, while grants will continue to be payable by the central Government to full mission hospitals. To this end, revised regulations governing the assessment and payment of grants were published at the end of the year and a new advisory committee, known as the Mission Medical Advisory Committee, was set up to advise the Director of Medical Services on all matters relating to or affecting the medical work of missions in the territory. Apart from Medical Department representatives, the membership of this committee includes a representative of the Member for Local Government and four mission representatives nominated by the Mission Medical Committee. In Appendix X will be found a classified list of the various mission medical institutions.

TABLE XVII

227. GRANTS-IN-AID TO MISSIONS, 1952

Mission	Grants for Medical Work		Grants for Training		Total	
	£	s.	£		£	s.
Universities Mission to Central Africa (Zanzibar Diocese) ... ..	7,653	15	1,530	...	9,183	15
Church Missionary Society ... ..	4,556	5	2,360	...	6,916	5
Universities Mission to Central Africa (Masasi Diocese) ... ..	5,295	0	945	...	6,240	0
Benedictine, Peramiho ... ..	3,622	10	250	...	3,872	10
White Fathers, Lake Province ... ..	3,371	5	450	...	3,821	5
Benedictine, Ndanda ... ..	2,808	15	900	...	3,708	15
Augustana Lutheran ... ..	2,722	10	-	...	2,722	10
Lutheran, Usámbara Area ... ..	2,081	5	450	...	2,531	5
Church of Sweden ... ..	2,287	10	-	...	2,287	10
Capuchin ... ..	2,092	10	-	...	2,092	10
Africa Inland ... ..	1,968	15	-	...	1,968	15
Moravian ... ..	1,912	10	-	...	1,912	10
Lutheran, Northern Area ... ..	1,867	10	-	...	1,867	10
Swedish Evangelical ... ..	1,620	0	-	...	1,620	0
Mennonite ... ..	1,440	0	-	...	1,440	0
Catholic, Ndareda ... ..	1,125	0	-	...	1,125	0
Universities Mission to Central Africa (Diocese of S.W. Tanganyika) ... ..	1,050	0	-	...	1,050	0
Seventh Day Adventist ... ..	765	0	-	...	765	0
White Fathers, Kigoma ... ..	675	0	-	...	675	0
Totals ... ..	48,915	0	6,885	...	55,800	0



## XIX.—RESEARCH

### SLEEPING SICKNESS

228. The Sleeping Sickness Specialist described experiments on the use of Mel. B and pentamidine in the treatment of sleeping sickness. Provisionally highly satisfactory results are reported following the administration of Mel. B in late and relapsed cases of Rhodesian sleeping sickness. Of a small group of eight cases treated with Mel. B hitherto regarded as incurable, seven are reported as being alive and well twelve to fourteen months after treatment. This experiment is being continued and a final opinion on the value of this drug in the treatment of late cases of Rhodesian sleeping sickness is withheld until a further period of observation has elapsed.

229. Experiments are also being conducted on pentamidine in combination with tryparsamide in selected cases of Rhodesian sleeping sickness. The results so far reported do not suggest that this method is likely to supersede existing methods of treatment.

### PLAGUE

230. Although strictly not a research project, reference is made here to the experimental use of streptomycin in a plague outbreak involving 346 cases and fifty deaths in the Singida District of the Central Province during 1952.

231. Remarkably successful results attended the exhibition of this drug in cases treated within three days of the onset of symptoms, especially bubonic and septicaemic plague without pneumonic involvement. A number of cases of primary pneumonic plague were reported during the course of the outbreak but there is no record of the results of streptomycin treatment in these cases except that it appears to have been less successful than in the case of the bubonic and septicaemic types.

232. The case fatality of treated cases varied with the celerity with which patients were brought for treatment after symptoms had commenced. It was also affected by the type of case. Case fatality was usually between ten per cent and fifteen per cent but in an isolated outbreak of fifty cases there were twenty deaths of which eleven were reported to be primary pneumonic plague. In all types where death occurred it was, in the majority of cases, within twelve hours of admission to hospital. The average total dosage of streptomycin worked out at a little under 4 gms. for adults and a little under 3 gms. for children (age details not given). The range of dosage varied from 1 gm. (in children) to a maximum of 6 gms.

233. Of the first 100 cases treated, forty-three were discharged from hospital within five days and thirty-one more within ten days.

234. An interesting feature of the response of bubonic plague to streptomycin treatment was that despite the dramatic improvement in clinical condition, i.e. temperature, tachycardia, malaise, there was no corresponding reduction in the size or tenderness of the bubo, irrespective of the duration of treatment. Many of the larger bubos became in fact septic. Following this observation, surgical removal of the bubo was undertaken as soon as the general symptoms had subsided and this was attended with uniformly successful results. Later the bubos were excised in four newly admitted cases while under streptomycin treatment. In two of these cases the temperature became normal within a few hours of removal and complete cure resulted following only 1 gm. of streptomycin.



## GENERAL

235. At the Government Medical Laboratory, Dar es Salaam, investigations were undertaken on a variety of subjects of local interest namely: latent homologous serum hepatitis in African infants and children; incidence of helminthiasis in Dar es Salaam African children with special reference to post-parasite relationships; anaemias of pregnancy; post-operative tetanus; tropical ulcers; epidemiology of salmonellosis; the sickle cell trait.

### XX.—MEDICAL SUPPLIES

236. The Department's medical stores organization is staffed by a Chief Pharmacist, six pharmacists, a stores accountant, and a number of stores assistants. It incorporates a self-accounting pharmaceutical laboratory for the manufacture of various drugs, etc., in common use. The organization is responsible for supplying all government and native authority medical units; purchases from the Stores may also be made by medical missions.

237. The supply of items in common use was satisfactory, particularly during the latter part of 1952. This was the outcome of a decision made in 1951 to carry a much greater reserve of such items as dressings, penicillin, sulpha drugs and anti-malarials.

238. At the beginning of the year an instrument mechanic was appointed and set up his workshop at the Medical Stores. Although still at times hampered by inadequate equipment, he has been continuously active in repair work of all types.

239. The new Medical Stores buildings were completed during 1952 and were occupied in the last quarter. Only the Pharmaceutical Laboratory remains in the old buildings. This will move in 1953.



APPENDIX I

ESTABLISHMENT AND STRENGTH

	Establishment—1952		Permanent Staff (a) Strength—31st Dec. 1952		Permanent Staff (a) Strength—31st Dec. 1951		
	Senior Service	Junior Service	Senior Service	Junior Service	Senior Service	Junior Service	
<b>I.—HEADQUARTERS AND ADMINISTRATION</b>							
Director of Medical Services, Deputy Director of Medical Services,							
Assistant Directors of Medical Services ... ..	7	—	6	—	6	—	—
Secretary ... ..	1	—	1	—	1	—	—
Accountant and Assistant Accountant ... ..	2	—	2	—	2	—	—
Matron-in-Chief ... ..	1	—	1	—	1	—	—
Chief Office Superintendent ... ..	1	—	1	—	1	—	—
Woman Administrative Assistants ... ..	6	—	6	—	5	—	—
Stenographers, Librarian, Office Assistants, Clerks and Telephone Operators ... ..	7	124	4	86	3	60	—
<b>II.—STORES AND PHARMACEUTICAL SERVICES</b>							
Chief Pharmacist and Pharmacists ... ..	6	—	5	—	4	—	—
Chief Storekeeper ... ..	1	—	—	—	—	—	—
Stores Accountant, Stores Assistants and Head Packer ... ..	1	11	1	4	1	4	—
Instrument Mechanic ... ..	1	—	1	—	—	—	—
Pharmaceutical Assistants ... ..	—	3	—	2	—	1	—
<b>III.—HOSPITAL AND HEALTH SERVICES</b>							
Specialists, Senior Medical Officers, Special Grade Medical Officers and Medical Officers ... ..	103	—	74	—	67	—	—
Matrons, Nursing Sisters and Male Nurses ... ..	127	—	87	—	82	—	—
Physiotherapists ... ..	4	—	4	—	3	—	—
Assistant Surgeons, Senior Sub-Assistant Surgeons, Sub-Assistant Surgeons and African Assistant Medical Officers ... ..	—	81	—	70	—	63	—
Nurses ... ..	—	200	—	116	—	100	—
Woman Nutrition Officer and Nutrition Auxiliaries ... ..	1	1	—	—	1	—	—
Medical Assistants ... ..	—	140	—	117	—	109	—
Senior Compounders, Compounders and Pharmaceutical Assistants Superintendents of Hospitals, Sister Housekeepers, Housekeepers Hospital Stewards and Motor Drivers ... ..	—	24	—	20	—	18	—
	11	29	8	15	9	15	—



APPENDIX I (contd.)

ESTABLISHMENT AND STRENGTH

	Establishment—1952		Permanent Staff (a) Strength—31st Dec. 1952		Permanent Staff (a) Strength—31st Dec. 1951	
	Senior Service	Junior Service	Senior Service	Junior Service	Senior Service	Junior Service
<b>I.—HEADQUARTERS AND ADMINISTRATION</b>						
Chief Health Inspector, Health Inspectors and Assistant Health Inspectors ... ..	35	5	34	4	34	3
Health Visitors ... ..	20	—	20	—	16	—
Sanitary Inspectors ... ..	—	99	—	68	—	64
<b>IV.—SPECIALIST SERVICES</b>						
<i>A. Dental:</i>						
Senior Dental Surgeon and Dental Surgeons ... ..	6	—	6	—	5	—
Senior Dental Mechanic, Dental Mechanics and Dental Assistants	3	7	2	—	2	—
Dental Auxiliaries ... ..	—	2	—	1	—	1
<i>A. Leprosy:</i>						
Specialist (Inter-territorial) ... ..	1	—	1	—	1	—
Medical Officers ... ..	2	—	2	—	1	—
Male Nurse and Female Nurse ... ..	2	—	—	—	—	—
<i>C. Malaria:</i>						
Malaria (Inter-territorial) and Malaria Specialist	2	—	1	—	—	—
Malaria Field Officers ... ..	5	—	5	—	3	—
Entomologists ... ..	2	—	1	—	1	—
Supervisors, Anti-Mosquito Measures and Malaria Assistants ...	—	24	—	9	—	9
Laboratory Auxiliaries ... ..	—	3	—	—	—	—
Draughtsman ... ..	—	1	—	1	—	—
Malaria Auxiliaries ... ..	—	15	—	4	—	—
<i>D. Mental:</i>						
Specialist ... ..	1	—	—	—	—	—
Chief Male Mental Nurse, Male and Female Mental Nurses and Male and Female Nurses ... ..	11	3	10	2	5	—
Handicraft Instructor ... ..	—	1	—	—	—	—
Medical Assistants ... ..	—	2	—	2	—	2



APPENDIX I (contd.)

ESTABLISHMENT AND STRENGTH

	Establishment—1952		Permanent Staff (a) Strength—31st Dec. 1952		Permanent Staff (a) Strength—31st Dec. 1951	
	Senior Service	Junior Service	Senior Service	Junior Service	Senior Service	Junior Service
<b>I.—HEADQUARTERS AND ADMINISTRATION</b>						
<i>E. Tuberculosis:</i>						
Specialist ... ..	1	—	1	—	1	—
Medical Officer ... ..	1	—	1	—	1	—
Industrial Instructor ... ..	1	—	1	—	1	—
Nursing Sister ... ..	1	—	1	—	1	—
Medical Assistants ... ..	—	4	—	3	—	3
<i>F. Sleeping Sickness:</i>						
Specialist and Medical Officers ... ..	3	—	1	—	1	—
<i>G. Laboratory Services:</i>						
Senior Pathologist and Pathologists ... ..	3	—	2	—	3	—
Laboratory Superintendents and Laboratory Assistants ... ..	4	32	3	32	3	30
Laboratory Auxiliaries ... ..	—	15	—	9	—	5
<i>H. X-Ray:</i>						
Radiologist ... ..	1	—	—	—	—	—
Radiological Technician ... ..	1	—	1	—	1	—
Radiographers and Radiographic Assistants ... ..	2	3	2	1	2	1
<i>J. Medical Education:</i>						
Medical Officers ... ..	2	—	2	—	1	—
Medical Instructor ... ..	1	—	1	—	1	—
Sister Tutors and Medical Assistants ... ..	4	3	4	2	4	3
Wardens ... ..	2	—	2	—	1	—
<i>K. Industrial Health:</i>						
Specialist ... ..	1	—	1	—	1	—
Medical Officer ... ..	1	—	—	—	—	—

(a) A number of apparent vacancies are filled by temporary staff.



APPENDIX II

PROMOTIONS

Name	From	To	Effective
C. W. Davies ... ..	S.M.O. ... ..	A.D.M.S. ... ..	11.9.52
A. McGregor ... ..	M.O. ... ..	S.M.O. ... ..	11.9.52
C. L. Hall ... ..	M.O. ... ..	S.M.O. ... ..	11.9.52
D. W. Ellis-Jones ... ..	S.G.M.O. ... ..	Specialist Ophthalmologist	1.1.52
W. F. Tagg ... ..	Dental Mechanic ... ..	Senior Dental Mechanic ...	1.1.52
G. Lennox ... ..	Male Mental Nurse ... ..	Chief Male Mental Nurse ... ..	1.4.52

APPENDIX III

HONOURS

H. N. Davies ... ..	Specialist, Tuberculosis ... ..	O.B.E.
Mrs. Wilhelmina Kelly ... ..	Nursing Sister ... ..	M.B.E.
Selemani Kwiroti ... ..	Retired Sanitary Inspector ... ..	King's Certificate of Honour and Badge.
Saidi Saluum ... ..	Medical Assistant ... ..	Queen's Certificate of Honour and Badge.



APPENDIX IV  
BEDS—GOVERNMENT GENERAL AND SPECIAL HOSPITALS AND DISPENSARIES

	No. of Hospitals etc.	No. of Wards	Number and Category of Beds						Allocation				
			General	Obstetrics	Tuber- culosis	Infectious		Mental	Total	European	Asian	African	Total
						General	Infectious						
I.—GENERAL HOSPITALS													
<i>Central Region:</i>													
Central Province ... ..	4	31	198	13	-	18	-	-	-	-	10	219	229
Southern Highlands Province ... ..	4	54	267	30	-	14	-	-	-	-	10	276	311
<i>Eastern Region:</i>													
Eastern Province ... ..	6	40	379	54	4	40	-	-	-	9	4	464	477
Southern Province ... ..	5	24	224	6	-	28	-	-	-	9	4	245	258
<i>Northern Region:</i>													
Northern Province ... ..	5	44	374	29	-	27	-	-	-	25	12	393	430
Tanga Province ... ..	6	50	530	14	4	18	-	-	-	20	18	528	566
<i>Western Region:</i>													
Lake Province ... ..	5	62	479	38	12	14	-	-	-	11	18	514	543
Western Province ... ..	6	33	359	33	-	4	-	-	-	12	8	376	396
<i>Dar es Salaam</i> ... ..	2	34	320	11	-	3	-	-	-	53	41	240	334
<b>TOTALS—GENERAL HOSPITALS</b> ... ..	43	372	3,130	228	20	166	-	-	-	164	125	3,255	3,544
II.—SPECIAL HOSPITALS													
<i>Central Region:</i>													
Mental Hospital, Dodoma ... ..	1	23	-	-	-	-	-	296	-	11	16	269	296
<i>Northern Region:</i>													
Tuberculosis Hospital, Kibongoto	1	7	8	2	230	-	-	-	-	-	30	210	240
Infectious Diseases Hospital, Tanga	1	9	-	-	-	12	-	-	-	-	-	12	12
Maternity Hospital, Tanga ... ..	1	3	-	11	-	-	-	-	-	-	-	11	11
<i>Western Region:</i>													
Maternity Hospital, Nzega ... ..	1	3	-	30	-	-	-	-	-	-	-	30	30
<i>Dar es Salaam:</i>													
Infectious Diseases Hospital ... ..	1	25	-	-	47	117	-	-	-	-	4	160	164
Maternity Hospital ... ..	1	7	-	40	-	-	-	-	-	-	-	40	40
<b>TOTALS—SPECIAL HOSPITALS</b> ... ..	7	77	8	83	277	129	296	793	11	50	732	793	







APPENDIX V  
DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL				
	CASES			DEATHS			CASES			DEATHS			TOTAL Deaths	TOTAL Cases	Percent- age Morbidity in Group	Percent- age Mortality in Group	
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total					Cases
<b>GROUP I</b>																	
<i>Infective and Parasitic Diseases</i>																	
Tuberculosis of the respiratory system...	1,211	365	1,576	205	61	266	181	98	279	26	14	40	1,855	306	1,855	3.99	21.13
Tuberculosis of meninges and central nervous system	11	5	16	2	3	5	3	7	10	1	2	3	26	8	26	0.05	0.55
Tuberculosis of intestines, peritoneum and mesenteric glands	32	18	50	3	2	5	17	10	27	—	—	—	77	5	77	0.17	0.34
Tuberculosis of bones and joints	126	59	185	6	5	11	27	20	47	3	—	3	232	14	232	0.50	0.96
Tuberculosis, all other forms	125	55	180	2	4	6	25	11	36	—	—	—	216	6	216	0.46	0.41
Congenital syphilis	88	66	154	17	7	24	86	69	155	8	2	10	309	34	309	0.67	2.34
Early syphilis (Primary and Secondary)	872	399	1,271	—	—	—	171	175	346	—	—	—	1,617	—	1,617	3.47	—
Tabes dorsalis	8	1	9	—	—	—	1	—	1	—	—	—	10	1	10	0.02	0.06
General paralysis of insane	6	2	8	—	—	—	—	—	—	—	—	—	8	—	8	0.01	—
All other syphilis, except syphilis of the heart or aorta	280	135	415	8	2	10	149	70	219	1	—	1	634	11	634	1.37	0.75
Gonococcal infections:																	
(a) Genito-urinary	1,321	370	1,691	4	—	4	1,271	963	2,234	—	—	—	3,925	5	3,925	8.45	0.34
(b) Ophthalmic infections	66	48	114	—	—	—	33	26	59	—	—	—	173	—	173	0.37	—
(c) Other infections	112	25	137	1	—	1	24	29	55	—	—	—	192	1	192	0.41	0.06
Typhoid fever	258	53	311	37	8	45	11	3	14	1	—	1	325	46	325	0.70	3.17
Paratyphoid fever and other Salmonella infections	18	4	22	—	—	—	4	1	5	—	—	—	27	1	27	0.05	0.06
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Brucellosis (undulant fever)	29	16	45	1	—	1	1	1	2	—	—	—	47	—	47	0.10	0.06
Facillary dysentery	244	85	329	14	2	16	105	96	201	7	3	10	530	26	530	1.15	1.79
Amoebiasis	266	66	332	15	3	18	62	48	110	1	—	1	442	19	442	0.96	1.31
Other unspecified forms of dysentery	445	108	551	32	6	38	49	66	115	3	4	7	606	45	606	1.44	3.10
Scarlet fever	5	2	7	—	—	—	11	—	11	—	—	—	18	—	18	0.03	—
Streptococcal sore throat	120	92	212	—	—	—	54	46	100	—	—	—	312	—	312	0.68	—
Erysipelas	—	3	3	—	—	—	14	7	21	1	1	2	24	2	24	0.05	—
Septicaemia and pyaemia	34	15	49	17	7	24	20	20	40	3	2	5	89	29	89	0.19	2.00
Diphtheria	6	49	55	—	—	—	—	—	—	—	—	—	57	2	57	0.13	0.13
Whooping cough	207	154	361	13	12	25	167	187	354	9	10	19	715	44	715	1.54	3.03
Meningococcal infections	157	81	238	78	44	122	43	29	72	18	9	27	310	149	310	0.67	10.29
Plague	4	8	12	—	—	—	—	—	—	—	—	—	12	—	12	0.02	0.06
Leptosy	127	53	180	4	—	4	88	17	55	1	—	1	235	5	235	0.51	0.34
Tetanus	106	64	170	55	34	89	17	11	28	6	8	14	198	103	198	0.42	7.11
Anthrax	139	63	202	6	2	8	10	6	16	1	—	1	218	9	218	0.46	0.62
Acute Poliomyelitis	19	13	32	—	2	2	16	14	30	—	—	—	62	2	62	0.14	0.13
Acute infectious encephalitis	1	2	3	1	2	3	4	2	6	—	—	—	9	3	9	0.01	0.20



APPENDIX V (contd.)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL				
	CASES			DEATHS			CASES			DEATHS			TOTAL Cases	TOTAL Deaths	GROUP TOTALS		Percent- age Mortal- ity in Group
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total			Cases	Deaths	
Late effects of acute poliomyelitis and acute infectious encephalitis	5	4	9	—	1	1	14	13	27	—	—	—	36	1	0.08	0.06	
Smallpox:—																	
(a) Variola major	6	2	8	1	—	1	1	—	1	—	—	—	9	1	0.13	0.06	
(b) Variola minor	301	159	460	3	2	5	50	67	117	1	1	1	577	6	0.03	0.41	
Measles	100	38	138	4	1	5	30	17	47	—	—	—	185	7	—	0.48	
Yellow fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Infectious hepatitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Rabies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Louse-borne epidemic typhus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Flea-borne endemic typhus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tick-borne epidemic typhus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Mite-borne typhus	23	4	27	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other and unspecified typhus	727	498	1,225	5	5	10	564	334	898	—	—	—	36	—	0.07	—	
Vivax malaria (benign tertian)	112	135	247	7	10	17	22	2	24	—	—	—	2,123	14	4.57	0.96	
Malariae malaria (quartan)	2,218	1,034	3,252	104	43	147	822	950	1,772	19	39	20	271	17	0.59	1.17	
Falciparum malaria (Malignant tertian)	15	3	18	4	1	5	2	5	7	1	1	2	25	6	10.81	12.84	
Blackwater fever	4,705	2,100	6,805	69	47	116	888	713	1,601	14	34	20	8,406	150	0.05	0.41	
Other and unspecified forms of malaria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Schistosomiasis vesical (S. haematobium)	748	249	997	3	2	5	646	344	990	2	2	—	1,987	7	4.28	0.48	
Schistosomiasis intestinal (S. Mansoni)	191	34	225	6	2	8	16	78	94	—	—	1	319	9	0.68	0.62	
Schistosomiasis pulmonary (S. japonicum)	7	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other and unspecified schistosomiasis	76	38	114	2	—	—	—	—	—	—	—	—	17	—	0.03	0.13	
Hydatid disease	3	86	89	1	—	—	3	1	4	—	—	—	118	—	0.25	0.13	
Onchocerciasis	8	14	17	1	—	—	1	—	1	—	—	—	90	1	0.20	0.06	
Loiasis	—	11	11	—	—	—	—	—	—	—	—	—	17	—	0.03	—	
Filariasis (bancrofti)	107	10	117	2	—	—	50	14	64	—	—	—	181	—	0.02	—	
Other filariasis	160	2	162	2	—	—	4	23	27	—	—	—	189	2	0.39	0.13	
Ankylostomiasis	1,979	704	2,683	57	17	74	1,657	1,114	2,771	3	5	8	5,454	82	0.40	0.13	
Tapeworm (infestation) and other cestode infestations	346	137	483	3	—	—	92	76	168	1	1	2	651	5	11.73	5.66	
Ascariasis	478	316	794	3	—	—	273	362	635	1	1	2	1,429	3	1.40	0.34	
Guinea worm (dracunculosis)	1	—	1	—	—	—	—	—	—	—	—	—	1	—	3.07	0.20	
Other diseases due to helminths	62	11	73	1	—	—	67	37	104	—	—	—	177	1	—	—	
Lymphogranuloma venereum	41	4	45	—	—	—	7	1	8	—	—	—	53	—	0.35	0.06	
Granuloma inguinale, venereal	43	3	46	—	—	—	11	1	12	—	—	—	57	—	0.11	—	
Other and unspecified venereal diseases	89	1	90	—	—	—	16	31	47	—	—	—	137	2	0.12	0.13	
Food poisoning infection and intoxication	19	1	20	1	—	—	6	10	16	—	—	—	36	1	0.29	0.06	



APPENDIX V (contd.)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL				
	CASES			DEATHS			CASES			DEATHS			TOTAL Deaths	GROUP TOTALS		Percent- age Morbid- ity in Group	Percent- age Mortal- ity in Group
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		Cases	Deaths		
Relapsing fever	705	368	1,073	9	6	15	92	66	158	4	3	7	1,231	22	2-64	1-51	
Leptospirosis icterohaemorrhagica (Weil's disease)	180	—	180	—	—	—	9	23	32	1	—	1	212	1	0-45	0-06	
Yaws	365	158	523	—	—	—	547	347	894	—	—	—	1,417	—	3-05	—	
Chickenpox	343	92	435	—	—	—	17	11	28	—	—	—	463	—	0-99	—	
Dengue	30	—	30	—	—	—	—	—	—	—	—	—	30	—	0-06	—	
Trachoma	65	49	114	—	—	—	182	100	282	—	—	—	346	—	0-74	—	
Sandfly fever	—	3	3	—	—	—	—	—	—	—	—	—	3	—	—	—	
Leishmaniasis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Trypanosomiasis gambiensis	—	—	—	—	—	—	3	—	3	1	—	1	3	1	—	0-06	
Trypanosomiasis rhodesiensis	151	30	181	20	2	22	2	2	4	—	—	—	185	22	0-39	1-51	
Other and unspecified trypanosomiasis	16	4	20	3	—	3	13	3	16	4	—	4	36	7	0-07	0-48	
Dermatophytosis	5	—	5	—	—	—	54	15	69	—	—	—	74	1	0-16	0-06	
Scabies	350	111	461	—	—	—	140	91	231	—	—	—	692	—	1-48	—	
All other diseases classified as infective and parasitic	346	106	452	5	4	9	70	62	132	1	1	2	584	11	46,479	1-25	0-75
<b>GROUP II</b>																	
<i>Neoplasms</i>																	
Malignant neoplasm of buccal cavity and pharynx	16	9	25	—	1	1	5	2	7	—	—	—	32	1	2-09	0-63	
Malignant neoplasm of oesophagus	3	1	4	—	1	1	1	2	3	—	—	—	7	1	0-43	0-63	
Malignant neoplasm of stomach	16	7	23	3	3	6	14	8	22	3	4	7	45	13	2-78	8-28	
Malignant neoplasm of intestine, except rectum	11	7	18	3	1	4	5	2	7	—	—	—	25	4	1-54	2-54	
Malignant neoplasm of rectum	9	5	14	6	1	7	1	1	2	—	—	—	16	7	0-99	4-45	
Malignant neoplasm of larynx	3	—	3	1	—	1	—	—	—	—	—	—	3	1	0-18	0-63	
Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	3	4	7	2	—	2	—	—	—	—	—	—	7	2	0-43	1-27	
Malignant neoplasm of breast	—	19	19	—	1	1	—	8	8	—	1	1	27	2	1-67	1-27	
Malignant neoplasm of cervix uteri	—	39	39	—	6	6	—	14	14	—	1	1	53	7	3-28	4-45	
Malignant neoplasm of other and un- specified parts of uterus	—	36	36	—	2	2	—	8	8	—	1	1	44	3	2-72	1-91	
Malignant neoplasm of prostate	15	15	30	5	—	5	11	—	11	1	—	1	26	6	1-61	3-82	
Malignant neoplasm of skin	17	13	30	—	1	1	9	4	13	1	—	—	43	2	2-66	1-27	
Malignant neoplasm of bone and con- nective tissue	36	13	49	5	3	8	12	6	18	4	—	4	67	12	4-15	7-64	
Malignant neoplasm of all other and unspecified sites	113	65	178	34	9	43	40	24	64	8	2	10	242	53	15-00	33-75	



APPENDIX V (contd)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL					
	CASES			DEATHS			CASES			DEATHS			TOTAL Deaths	TOTAL Cases	GROUP TOTALS		Percent- age Morbidity in Group	Percent- age Mortality in Group
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total			Cases	Deaths		
Leukaemia and aleukaemia ... ..	7	4	11	—	2	2	6	4	10	—	2	2	4	21	4	1·30	2·54	
Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system ... ..	26	14	40	5	2	7	10	4	14	1	1	2	9	54	9	3·34	5·73	
Benign neoplasms and neoplasms of unspecified nature ... ..	218	466	684	8	16	24	98	119	217	3	3	6	30	901	30	55·85	19·10	
GROUPS III AND IV																		
<i>Allergic, Endocrine system, Metabolic and Nutritional Diseases, and Diseases of the Blood and Blood Forming Organs</i>																		
Nontoxic goitre ... ..	10	9	19	—	1	1	4	6	10	—	1	1	2	29	2	0·90	0·90	
Thyrototoxicosis with or without goitre...	2	5	7	5	3	8	18	6	8	3	1	4	12	15	6	3·11	5·42	
Diabetes mellitus ... ..	52	24	76	3	3	6	5	6	11	—	3	3	6	100	6	1·15	2·71	
Beriberi ... ..	21	5	26	3	—	3	5	3	6	—	—	—	5	37	5	1·43	2·26	
Pellagra ... ..	24	16	40	—	5	5	3	2	6	—	—	—	5	46	5	0·93	2·26	
Scoury ... ..	10	14	24	2	3	5	4	4	8	1	—	1	5	30	5	1·52	2·26	
Kwashiorkor ... ..	4	6	10	2	2	4	23	16	39	—	—	—	5	49	5	14·53	23·98	
Other deficiency states ... ..	184	107	291	28	14	42	80	96	176	8	3	11	53	467	53	5·44	8·14	
Pernicious and other hyperchromic anaemias ... ..	135	21	156	18	—	18	9	10	19	—	—	—	18	175	18	25·04	18·09	
Iron deficiency anaemias (hypo- chromic) ... ..	209	185	394	16	12	28	183	293	411	2	10	12	40	805	40	20·13	21·26	
Other and unspecified anaemias ... ..	306	193	499	23	23	46	56	92	148	1	—	1	47	647	47	16·21	4·97	
Asthma ... ..	319	107	426	7	1	8	58	37	95	1	2	3	11	521	11	9·11	7·69	
All other allergic disorders, endocrine, metabolic and blood diseases ... ..	151	53	204	11	3	14	35	54	89	3	—	3	17	293	17	29·55	50·00	
GROUP V																		
<i>Mental, Psychoneurotic and Personality Disorders</i>																		
Psychoses ... ..	25	13	38	—	—	—	9	13	22	1	—	1	1	60	1	38·91	50·00	
Psychoneuroses and disorders of per- sonality ... ..	29	24	53	—	—	—	12	14	26	—	—	—	—	79	—	31·52	—	
Mental deficiency ... ..	37	13	50	1	—	1	8	6	14	—	—	—	1	64	1	203	2	
GROUP VI																		
<i>Diseases of the Nervous System and Sense Organs</i>																		
Vascular lesions affecting central nervous system ... ..	27	15	42	3	2	5	14	10	24	2	—	2	7	66	7	1·89	10·29	







APPENDIX (contd.)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL					
	CASES			DEATHS			CASES			DEATHS			TOTAL Deaths	GROUP TOTALS		Percent- age Morbidity in Group	Percent- age Mortality in Group	
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		Cases	Deaths			
<b>GROUP IX</b>																		
<i>Diseases of the Digestive System</i>																		
Dental caries ... ..	167	58	225	—	—	—	110	61	171	—	—	—	—	—	396	—	4.85	—
All other diseases of teeth and sup- porting structures ... ..	73	48	121	4	2	6	30	61	91	—	—	—	—	—	212	6	2.60	1.48
Ulcer of stomach ... ..	39	5	44	—	—	—	8	1	9	1	—	—	—	—	53	1	0.65	0.24
Ulcer of duodenum ... ..	44	11	55	2	1	3	4	2	6	—	—	—	—	—	61	3	0.74	0.74
Gastritis and duodenitis ... ..	71	18	89	—	1	1	29	36	65	—	—	—	—	—	154	1	1.88	0.24
Appendicitis ... ..	151	104	255	9	2	11	10	5	15	1	—	—	—	—	270	11	3.31	2.71
Intestinal obstruction and hernia ... ..	1,488	82	1,570	80	18	98	290	25	315	5	3	8	—	—	1,885	106	23.12	26.17
Gastro-enteritis and colitis between 4 weeks and 2 years ... ..	292	190	482	20	14	34	130	148	278	3	8	11	—	—	760	45	9.32	11.11
Gastro-enteritis and colitis ages 2 years and over ... ..	782	377	1,159	55	23	78	118	105	223	7	1	8	—	—	1,382	86	16.95	21.23
Chronic enteritis and ulcerative sto- mach ... ..	22	25	47	4	3	7	4	2	6	—	—	—	—	—	53	7	0.65	1.72
Cirrhosis of the liver ... ..	212	68	280	46	7	53	36	12	48	5	1	6	—	—	328	59	4.02	14.56
Cholelithiasis and cholecystitis ... ..	24	16	40	3	—	3	7	14	21	—	—	—	—	—	61	3	0.74	0.74
Other diseases of digestive system ... ..	1,364	799	2,163	41	32	73	204	171	375	4	—	4	—	—	2,538	77	31.12	19.01
<b>GROUP X</b>																		
<i>Diseases of the Genito-Urinary System</i>																		
Acute nephritis ... ..	55	21	76	10	1	11	23	19	42	—	—	—	—	—	118	12	2.01	9.16
Chronic, other and unspecified neph- ritis ... ..	61	40	101	11	6	17	24	10	43	2	1	3	—	—	144	20	2.45	15.27
Infections of kidney ... ..	56	48	104	8	1	9	21	23	44	1	—	—	—	—	148	9	2.52	6.87
Calculi of urinary system ... ..	34	6	40	1	—	1	7	3	10	1	—	—	—	—	50	2	0.85	1.53
Hyperplasia of prostate ... ..	67	—	67	6	—	6	15	—	15	—	—	—	—	—	82	6	1.40	4.58
Diseases of breast ... ..	—	96	96	—	—	—	—	53	53	—	—	—	—	—	149	—	2.54	—
Hydrocele ... ..	934	11	945	6	—	6	235	13	248	1	—	—	—	—	1,193	7	20.32	5.34
Disorders of menstruation ... ..	—	385	385	—	—	—	—	186	186	—	—	—	—	—	571	—	9.73	—
All other diseases of the genito-urinary system ... ..	1,483	982	2,465	45	16	61	534	416	950	10	4	14	—	—	3,415	75	58.18	57.25
<b>GROUP XI</b>																		
<i>Deliveries and Complications of Pregnancy, Childbirth and the Puerperium</i>																		
Sepsis of pregnancy, childbirth and the puerperium ... ..	—	53	53	—	4	4	—	67	67	—	9	9	—	—	120	13	0.96	8.18
Toxæmias of pregnancy and the puerperium ... ..	—	168	168	—	18	18	—	12	12	—	—	—	—	—	180	18	1.44	11.32



APPENDIX V (contd.)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL					
	CASES			DEATHS			CASES			DEATHS			TOTAL Deaths	TOTAL Cases	GROUP TOTALS Cases	Deaths	Percent- age Morbid- ity in Group	Percent- age Mortal- ity in Group
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total						
Haemorrhage of pregnancy and child-birth	—	72	72	—	13	13	—	—	—	—	—	—	—	188	17	10-69	1-51	10-69
Abortion without mention of sepsis or toxæmia	—	731	731	—	1	1	—	—	—	—	—	—	996	2	1-26	7-99	1-26	
Abortion with sepsis	—	182	182	—	4	4	—	—	—	—	—	—	201	5	3-14	1-61	3-14	
Other complications of pregnancy, childbirth and the puererium	—	993	993	—	69	69	—	—	—	—	—	—	1,501	88	55-35	12-05	55-35	
Delivery without complications	—	6,077	6,077	—	11	11	—	—	—	—	—	—	9,280	16	10-06	74-44	10-06	
<b>GROUPS XII and XIII</b>																		
<i>Diseases of the Skin and Cellular Tissues and Diseases of the Bones and Organs of Movement</i>																		
Infections of skin and subcutaneous tissue	1,755	559	2,314	13	6	19	350	272	622	6	—	—	—	2,986	25	27-47	23-34	27-47
Arthritis and spondylitis	458	111	569	3	—	3	56	33	89	—	—	—	—	658	3	3-30	5-23	3-30
Muscular rheumatism and rheumatism unspecified	425	166	591	—	—	—	96	76	172	—	—	—	—	768	—	—	6-07	—
Osteomyelitis and periostitis	324	83	407	11	2	13	64	54	118	1	—	—	—	525	14	15-38	4-17	15-38
Ankylosis and acquired musculoskeletal deformities	45	19	64	1	—	1	42	3	45	—	—	—	—	109	1	1-10	0-87	1-10
Chronic ulcer of skin (including tropical ulcers)	3,179	877	4,056	16	12	28	723	544	1,267	1	1	1	—	5,323	30	32-97	42-33	32-97
All other diseases of skin	1,011	368	1,379	4	1	5	165	126	291	—	—	—	—	1,070	6	6-59	13-28	6-59
All other diseases of musculoskeletal system	404	117	521	8	3	11	48	23	71	—	—	—	—	592	12	13-19	4-71	13-19
<b>GROUP XIV</b>																		
<i>Congenital Malformations</i>																		
Spina bifida and meningocele	1	2	3	1	—	1	3	2	5	—	—	—	—	8	1	20-00	10-81	20-00
Congenital malformations of circulatory system	2	—	2	1	—	1	—	1	1	—	—	—	—	8	2	40-00	4-05	40-00
All other congenital malformations	20	21	41	1	1	2	11	11	22	—	—	—	63	2	40-00	85-14	40-00	
<b>GROUP XV</b>																		
<i>Certain Diseases of Early Infancy</i>																		
Birth injuries	3	1	4	—	—	—	5	2	7	—	—	—	—	11	6	6-33	2-32	6-33
Postnatal asphyxia and stelectasis	—	6	6	—	1	1	3	15	18	—	—	—	—	24	5	5-32	5-07	5-32
Diarrhoea of newborn (under 4 weeks)	6	5	11	—	1	1	10	10	20	—	—	—	—	31	1	1-06	6-56	1-06
Ophthalmia neonatorum	3	7	10	—	—	—	2	9	11	—	—	—	—	21	—	—	4-44	—



APPENDIX V (contd.)

APPENDIX V

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL				
	CASES			DEATHS			CASES			DEATHS			TOTAL Deaths	GROUP TOTALS Cases	Deaths	Percent- age Morbidity in Group	Percent- age Mortality in Group
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total					
Other infections of newborn ...	2	—	2	1	2	3	7	12	19	2	—	2	21	5	4.44	5.32	
Haemolytic disease of newborn ...	—	1	1	—	1	1	4	—	4	—	—	1	5	2	1.06	2.13	
All other defined diseases of early infancy ...	50	23	73	15	1	16	28	13	41	2	—	3	114	10	24.10	20.21	
Ill-defined diseases peculiar to early infancy, and immaturity unqualified ...	23	46	69	2	4	6	38	139	177	5	45	50	246	56	52.01	59.59	
GROUP XVI																	
<i>Symptoms, Senility, and Ill-Defined Conditions</i>																	
Senility without mention of psychosis ...	69	41	110	25	0	31	4	9	13	1	2	3	123	34	3.09	21.52	
Pyrexia of unknown origin ...	1,434	451	1,885	22	17	39	277	319	596	14	9	23	2,481	62	62.23	39.24	
Observation without need for further medical care ...	215	154	369	—	—	—	6	16	22	—	—	—	391	—	9.80	—	
All other ill-defined causes of morbidity ...	552	301	853	23	12	35	84	55	139	17	10	27	992	62	24.88	39.24	
GROUP XVII																	
<i>Accidents, Poisoning and Violence</i>																	
Fracture of skull ...	104	11	115	36	3	39	10	1	11	4	—	4	126	43	1.15	14.38	
Fracture of spine and trunk ...	181	15	196	11	2	13	14	5	19	3	—	3	215	16	1.96	5.33	
Fracture of limbs ...	1,700	437	2,137	21	6	27	113	45	158	—	—	—	2,295	27	20.96	9.00	
Dislocation without fracture ...	240	60	300	—	—	—	20	6	26	—	—	—	326	—	2.98	—	
Sprains and strains of joints and adjacent muscles ...	339	63	402	—	—	—	21	8	29	—	—	—	431	—	3.93	—	
Head injury (excluding fracture) ...	364	70	434	13	3	16	24	12	36	3	—	3	470	19	4.29	6.33	
Internal injury of chest, abdomen and pelvis ...	73	12	85	26	3	29	16	9	25	3	1	4	110	33	1.00	11.00	
Laceration and open wounds ...	2,136	459	2,595	33	8	41	263	117	380	—	—	—	2,975	41	27.15	13.67	
Superficial injury, contusion and crushing with intact skin surface ...	1,550	318	1,868	2	2	4	48	39	87	1	1	2	1,955	6	17.84	2.00	
Effects of foreign body entering through orifice ...	34	16	50	—	—	—	11	6	17	—	—	—	67	—	0.61	—	
Burns ...	427	224	651	27	34	61	70	65	144	7	5	12	795	73	7.26	24.34	
Effects of poisons ...	145	68	213	9	3	12	12	39	51	2	13	15	264	27	2.41	9.00	
All other and unspecified effects of external causes ...	575	207	782	4	3	7	57	88	145	7	1	8	927	15	8.46	5.00	
Totals ...	57,946	31,751	89,697	2,157	1,122	3,279	16,986	17,975	34,961	389	347	736	124,658	4,015	124,658	4,015	



APPENDIX VI  
DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS			MISSION HOSPITALS			Territorial Total	Group Total	Percentage Morbidity in Group
	Male	Female	Total	Male	Female	Total			
<b>GROUP I</b>									
<i>Infective and Parasitic Diseases (and influenza, meningitis and eye diseases)</i>									
Tuberculosis of the respiratory system	582	228	810	319	281	600	1,410		0.34
Other tuberculous disease	188	121	309	303	53	356	665		0.12
Syphilis	18,399	14,155	32,554	1,641	1,842	3,483	36,037		8.70
Gonorrhoea	10,858	3,551	14,409	1,938	2,021	3,959	18,368		4.44
Other venereal diseases	3,336	2,821	6,157	864	61	925	7,082		1.71
Fevers of uncertain origin, including influenza	30,166	24,107	54,273	4,428	5,711	10,139	64,412		15.55
Bacillary dysentery	857	428	1,285	153	206	359	1,644		0.40
Amoebic dysentery	324	99	423	162	186	348	771		0.19
Other dysentery	3,346	2,815	6,161	175	234	409	6,570		1.59
Diphtheria	29	16	45	—	—	—	45		0.01
Whooping cough	1,393	1,344	2,737	759	757	1,516	4,253		1.03
Meningitis	12	1	13	4	2	6	19		0.01
Plague	—	—	—	—	—	—	—		—
Leprosy	175	60	235	688	490	1,178	1,413		0.34
Tetanus	17	5	22	8	4	12	34		0.01
Anthrax	108	82	190	5	11	16	206		0.05
Acute poliomyelitis	7	4	11	18	8	26	37		0.01
Smallpox:									
(a) Variola major	—	—	—	—	—	—	—		—
(b) Variola minor	2	3	5	12	8	20	25		0.01
Measles	817	799	1,616	444	512	956	2,572		0.63
Yellow fever	—	—	—	—	—	—	—		—
Rabies	—	—	—	—	—	—	—		—



APPENDIX VI (contd.)

DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS			MISSION HOSPITALS			Territorial Total	Group Total	Percentage Morbidity in Group
	Male	Female	Total	Male	Female	Total			
Malaria:									
(a) Benign Tertian	1,916	1,054	2,970	2,523	2,033	4,556	7,526		1.82
(b) Quartan	5	1	6	2	—	2	8		0.00
(c) Sub-tertian	16,071	10,216	26,287	1,929	2,127	4,056	30,343		7.32
(d) Unclassified	32,106	17,509	49,615	9,496	8,945	18,441	68,056		16.43
Blackwater fever	4	—	4	1	—	1	5		0.00
Schistosomiasis:									
(a) Vesical	5,982	2,425	8,407	2,611	2,225	4,836	13,243		3.20
(b) Intestinal	686	301	987	251	259	510	1,497		0.36
Tapeworm	4,144	2,415	6,559	983	943	1,926	8,485		2.05
Onchocerciasis	69	34	103	—	—	—	103		0.02
Ankylostomiasis	8,303	5,840	14,143	5,382	4,564	9,946	24,089		5.82
Ascariasis	7,742	9,038	16,780	1,419	1,362	2,781	19,561		4.73
Relapsing fever	477	327	804	252	235	487	1,291		0.31
Yaws	3,913	5,593	9,506	2,808	2,144	4,952	14,458		3.49
Chickenpox	442	398	840	57	53	110	950		0.23
Trachoma	907	623	1,530	516	513	1,029	2,559		0.62
Other diseases of eye and annexa (except ophthalmia neonatorum)	21,433	13,892	35,325	5,363	4,695	10,058	45,383		10.95
Trypanosomiasis	6	3	9	13	2	15	24		0.01
Tinea	902	449	1,351	158	69	227	1,578		0.38
Scabies	10,161	7,609	17,770	1,517	1,441	2,958	20,728		5.01
All other infective and parasitic diseases	3,912	2,766	6,678	1,136	1,023	2,159	8,837	414,287	2.11
GROUP II									
<i>Neoplasms</i>									
Cancer and other tumours:									
(a) Malignant neoplasms	32	20	52	16	41	57	109		10.17
(b) Non-malignant	169	119	288	58	163	221	509		47.53
(c) Undetermined	168	141	309	48	96	144	453	1,071	42.30



APPENDIX VI (contd.)

DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS			MISSION HOSPITALS			Territorial Total	Group Total	Percentage Morbidity in Group
	Male	Female	Total	Male	Female	Total			
<b>GROUP III</b>									
<i>Allergic, Endocrine System, Metabolic and Nutritional Diseases</i>									
Asthma ... ..	1,492	589	2,081	238	146	384	2,465		27.57
Diabetes ... ..	32	12	44	4	8	12	56		0.62
Vitamin deficiency states ... ..	535	432	967	297	311	608	1,575		17.61
Other allergic, endocrine system, metabolic and nutritional diseases ... ..	2,065	823	2,888	913	1,045	1,958	4,846	8,942	54.20
<b>GROUP IV</b>									
<i>Diseases of the Blood and Blood Forming Organs</i>									
All diseases of the blood and blood forming organs	2,209	1,118	3,327	613	1,149	1,762	5,089	5,089	-
<b>GROUPS V AND VI</b>									
<i>Mental, Psychoneurotic and Personality Diseases and Diseases of Nervous System and Sense Organs</i>									
Cerebral haemorrhage ... ..	3	13	16	1	3	4	20		0.07
Mental disorders ... ..	51	31	82	15	21	36	118		0.38
Epilepsy ... ..	111	32	143	66	18	84	227		0.74
Other diseases of nervous system ... ..	7,533	3,721	11,254	247	255	502	11,756		38.34
Diseases of ear and mastoid ... ..	9,138	6,179	15,317	1,682	1,542	3,224	18,541	30,662	60.47
<b>GROUP VII</b>									
<i>Diseases of the Circulatory System</i>									
Heart disease ... ..	142	137	279	803	708	1,511	1,790		49.64
Other circulatory disease ... ..	1,072	563	1,635	103	78	181	1,816	3,606	50.36



APPENDIX VI (contd.)  
DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS			MISSION HOSPITALS			Territorial Total	Group Total	Percentage Morbidity in Group
	Male	Female	Total	Male	Female	Total			
<b>GROUP VIII</b>									
<i>Diseases of the Respiratory System</i>									
Pneumonia ... ..	1,169	942	2,111	732	800	1,532	3,643	119,239	3.06
Other diseases of respiratory system ... ..	59,795	35,969	95,764	10,687	9,145	19,832	115,596		96.94
<b>GROUP IX</b>									
<i>Diseases of the Digestive System</i>									
Caries ... ..	13,333	5,652	18,985	971	940	1,911	20,896		15.36
Other conditions ... ..	2,993	2,156	5,149	401	367	768	5,917		4.35
Appendicitis ... ..	36	140	176	30	25	55	231		0.17
Intestinal obstruction and hernia ... ..	882	12	894	207	8	215	1,109		0.81
Gastro-enteritis:									
(a) Between 4 weeks and 2 years ... ..	4,328	4,363	8,691	899	867	1,766	10,457		7.69
(b) 2 years and over ... ..	10,427	6,514	16,941	1,255	1,232	2,487	19,428		14.28
Cirrhosis of the liver ... ..	147	90	237	12	85	97	334		0.25
Other diseases of liver and bile passages ... ..	302	206	508	84	48	132	640		0.47
Other diseases of digestive system ... ..	40,456	27,344	67,800	3,803	5,392	9,195	76,995	136,007	56.62
<b>GROUP X</b>									
<i>Diseases of the Genito-Urinary System</i>									
Nephritis ... ..	69	72	141	45	33	78	219	16,186	1.35
Other diseases of the genito-urinary system ... ..	6,438	4,031	10,469	1,386	4,112	5,498	15,967		98.65



APPENDIX VI (contd.)

DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS			MISSION HOSPITALS			Territorial Total	Group Total	Percentage Morbidity in Group
	Male	Female	Total	Male	Female	Total			
<b>GROUP XI</b>									
<i>Complications of Pregnancy, Childbirth and the Puerperium</i>									
Abortion ... ..	-	455	455	-	102	102	557		7.12
Toxaemias of pregnancy ... ..	-	1,753	1,753	-	47	47	1,800		23.01
Other conditions of the puerperal state ... ..	-	956	956	-	2,329	2,329	3,285		41.99
Normal deliveries ... ..	-	2,173	2,173	-	8	8	2,181	7,823	27.88
<b>GROUPS XII AND XIII</b>									
<i>Diseases of the Skin and Cellular Tissue, and Diseases of Bones and Organs of Locomotion</i>									
Ulcers ... ..	39,853	15,249	55,102	5,053	3,323	8,376	63,478		47.43
Rheumatic conditions ... ..	16,108	8,318	24,426	1,811	2,024	3,835	28,261		21.11
Other diseases of bones, skin and musculo-skeletal system ... ..	24,227	12,135	36,362	2,921	2,820	5,741	42,103	133,842	31.46
<b>GROUPS XIV AND XV</b>									
<i>Congenital Malformations and Certain Diseases of Early Infancy</i>									
Diarrhoea of the new-born ... ..	151	157	308	74	74	148	456		22.50
Ophthalmia neonatorum ... ..	45	33	78	4	3	7	85		4.19
Immaturity ... ..	7	5	12	10	7	17	29		1.43
All other malformation and diseases of early infancy ... ..	234	100	334	517	606	1,123	1,457	2,027	71.88



APPENDIX VI (contd.)

DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only)

	GOVERNMENT HOSPITALS			MISSION HOSPITALS			Territorial Total	Group Total	Percentage Morbidity in Group
	Male	Female	Total	Male	Female	Total			
<b>GROUP XVI</b>									
<i>Senility and Ill-defined Conditions</i>									
Senility ... ..	85	124	209	22	16	38	247		1.38
All other ill-defined causes of morbidity ... ..	6,516	3,720	10,236	3,217	4,176	7,393	17,629	17,876	98.62
<b>GROUP XVII</b>									
<i>Accidents, Poisoning and Violence</i>									
Fractures and dislocations ... ..	1,475	490	1,965	180	100	280	2,245		3.28
Injuries by animals and insects ... ..	1,777	955	2,732	104	75	179	2,911		4.25
Other wounds and superficial injuries (excluding burns) ... ..	30,338	7,157	37,495	2,013	919	2,932	40,427		59.02
Burns and scalds ... ..	2,437	1,423	3,860	232	176	408	4,268		6.23
Poisons ... ..	37	14	51	33	5	38	89		0.13
All other injuries from external causes ... ..	13,548	3,485	17,033	579	944	1,523	18,556	68,496	27.09
Examinations ... ..	7,349	2,286	9,635	5,113	7,031	12,144	21,779	21,779	
<b>TERRITORIAL TOTALS ... ..</b>	<b>499,111</b>	<b>293,541</b>	<b>792,652</b>	<b>95,837</b>	<b>98,443</b>	<b>194,280</b>	<b>986,932</b>	<b>986,932</b>	



APPENDIX VII

IN-PATIENTS—GOVERNMENT GENERAL AND SPECIAL HOSPITALS AND DISPENSARIES  
(Excluding Maternity and Child Welfare Centres)

Medical Region	No. admitted during the year (a)						No. discharged during the year						Deaths						Daily average in hospital								
	European			Non-European			European			Non-European			European			Non-European			European			Non-European					
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total			
I. GENERAL HOSPITALS																											
CENTRAL REGION																											
Central Province ...	—	—	6,446	4,085	2,361	6,446	—	—	6,213	3,958	2,255	6,213	—	—	112	—	—	92	—	—	204	—	—	121.8	—	—	181.1
S. Highlands Province	191	189	8,055	4,166	3,509	8,055	189	185	7,747	3,994	3,379	7,747	3	4	154	3	4	110	3	4	271	131.4	85.7	226.8	131.4	85.7	226.8
EASTERN REGION																											
Eastern Province ...	76	62	7,986	6,077	1,771	7,986	78	64	7,624	5,786	1,696	7,624	—	—	245	—	—	74	—	—	319	131.4	85.7	226.8	131.4	85.7	226.8
Southern Province ...	49	59	4,138	2,889	1,141	4,138	48	58	3,994	2,783	1,105	3,994	—	—	59	—	—	25	—	—	84	106.1	34.6	143.2	106.1	34.6	143.2
NORTHERN REGION																											
Northern Province ...	299	233	11,764	7,613	3,619	11,764	294	230	11,254	7,276	3,454	11,254	5	4	272	5	4	151	5	4	432	330.6	68.3	408.2	330.6	68.3	408.2
Tanga Province	254	178	9,743	6,946	2,365	9,743	254	175	9,185	6,517	2,239	9,185	3	1	416	3	1	125	3	1	545	330.6	68.3	408.2	330.6	68.3	408.2
WESTERN REGION																											
Lake Province ...	80	82	12,827	7,379	5,286	12,827	78	85	12,268	7,062	5,043	12,268	2	—	306	2	—	219	2	—	527	302.7	132.8	435.9	302.7	132.8	435.9
Western Province ...	67	70	10,164	5,629	4,398	10,164	66	70	9,621	5,324	4,161	9,621	—	—	285	—	—	202	—	—	487	199.4	134.9	337.0	199.4	134.9	337.0
DAR ES SALAAM	433	424	7,400	4,705	1,788	7,400	489	431	7,155	4,538	1,697	7,155	9	3	176	9	3	78	9	3	266	174.0	66.4	261.3	174.0	66.4	261.3
TOTALS—GENERAL HOSPITALS ...	1,499	1,297	78,523	49,489	26,238	78,523	1,496	1,298	75,061	47,238	25,029	75,061	22	12	2,025	22	12	1,076	22	12	3,135	1,888.7	725.4	2,623.9	1,888.7	725.4	2,623.9
II. SPECIAL HOSPITALS																											
CENTRAL REGION																											
Mental Hospital, Dodoma ...	1	5	200	138	56	200	1	2	145	111	31	145	—	—	27	—	—	17	—	—	44	2.3	5.2	158.8	87.0	253.3	
NORTHERN REGION																											
Tuberculosis Hospital, Kibungoto ...	—	—	1,294	774	520	1,294	—	—	1,196	722	474	1,196	—	—	50	—	—	23	—	—	78	Not Available	Not Available	Not Available	Not Available	Not Available	
Infectious Diseases Hospital, Tanga ...	—	—	34	34	—	34	—	—	20	20	—	20	—	—	14	—	—	—	—	—	14	—	—	10.7	—	10.7	
DAR ES SALAAM																											
Infectious Diseases Hospital ...	—	—	760	595	165	760	—	—	681	535	146	681	—	—	37	—	—	7	—	—	44	—	—	82.0	23.8	105.8	
TOTALS—SPECIAL HOSPITALS ...	1	5	2,288	1,541	741	2,288	1	2	2,042	1,388	651	2,042	—	—	128	—	—	52	—	—	180	2.3	5.2	251.5	110.8	369.8	



APPENDIX VII (contd.)

IN-PATIENTS—GOVERNMENT GENERAL AND SPECIAL HOSPITALS AND DISPENSARIES  
(Excluding Maternity and Child Welfare Centres)

Medical Region	No. Admitted during the year (a)			No. discharged during the year			Deaths			Daily average in hospital										
	European		Non-European	European		Non-European	European		Non-European	European		Non-European								
	M	F	M	F	M	F	M	F	M	F	M	F	Total							
CENTRAL REGION	—	—	460	231	691	—	—	—	—	—	—	—	—	—						
															1,056	935	1,991	—	—	—
S. Highlands Province																				
EASTERN REGION	—	—	209	51	260	—	—	—	—	—	—	—	—	—						
															365	217	582	—	—	—
Eastern Province																				
Southern Province																				
NORTHERN REGION	—	—	500	300	800	—	—	—	—	—	—	—	—	—						
															549	288	837	—	—	—
Northern Province																				
Tanga Province																				
WESTERN REGION	—	—	1,281	996	2,277	—	—	—	—	—	—	—	—	—						
															423	142	565	—	—	—
Lake Province																				
Western Province																				
TOTALS—DISPENSARIES	—	—	4,843	3,160	8,003	—	—	—	—	—	—	—	—	—						
TERRITORIAL TOTALS ...	1,500	1,302	55,873	30,139	88,814	1,497	1,300	53,286	28,736	84,819	22	12	2,305	1,215	3,554	33.7	33.6	2,221.4	914.3	3,203.0

(a) These are the total numbers of patients admitted to hospital during the year, and do not include patients remaining in hospital at the beginning of the year.







APPENDIX VIII (contd.)

OUT-PATIENTS—GOVERNMENT GENERAL AND SPECIAL HOSPITALS AND DISPENSARIES

MEDICAL REGION	TOTAL ATTENDANCE DURING THE YEAR				TOTAL NEW CASES DURING THE YEAR				
	Male		Female		Male		Female		
	European	Non-European	European	Non-European	European	Non-European	European	Non-European	
				Total				Total	
III.—DISPENSARIES (Including Out-patient Dispensaries)									
<i>Central Region:</i>									
Central Province ... ..	—	23,944	—	17,288	41,232	—	8,319	5,575	13,894
Southern Highlands Province ... ..	—	71,306	—	49,356	120,662	—	34,137	26,004	60,141
<i>Eastern Region:</i>									
Eastern Province ... ..	32	32,633	4	14,509	47,178	16	17,354	6,997	24,370
Southern Province ... ..	—	36,500	—	25,524	62,024	—	22,143	13,037	35,180
<i>Northern Region:</i>									
Northern Province ... ..	—	38,392	—	64,567	102,959	—	14,655	17,495	32,150
Tanga Province ... ..	—	18,360	—	14,964	33,324	6	11,030	7,042	18,079
<i>Western Region:</i>									
Lake Province ... ..	38	86,313	10	66,792	153,148	13	46,528	31,131	77,678
Western Province ... ..	14	63,395	—	65,222	128,631	1	30,337	31,361	61,699
TOTAL—DISPENSARIES ... ..	79	370,843	14	318,222	689,158	36	184,503	138,642	323,191
TERRITORIAL TOTALS ... ..	15,093	1,610,111	11,618	992,774	2,629,596	8,586	723,253	435,015	1,173,615



APPENDIX IX

NATIVE AUTHORITY MEDICAL SERVICES

MEDICAL REGION	Number of Dispensaries	STAFF			Beds if any	NEW CASES DURING THE YEAR			Total Attendances during the year
		Medical Assistants	Rural Medical Aids	Tribal Dressers		Males	Females	Total	
<b>CENTRAL REGION</b>									
Central Province ...	42	—	1	43	52	135,083	130,400	265,483	463,158
S. Highlands Province ...	50	—	45	13	—	155,018	146,441	301,459	696,604
<b>EASTERN REGION</b>									
Eastern Province ...	77	2	7	81	3	114,450	89,044	203,494	440,485
Southern Province ...	32	—	1	32	25	47,960	28,561	76,521	197,386
<b>NORTHERN REGION</b>									
Northern Province ...	50	—	8	44	—	103,039	79,066	182,105	308,678
Tanga Province ...	39	—	10	30	17	64,077	58,728	122,805	404,727
<b>WESTERN REGION</b>									
Lake Province ...	98	—	72	47	—	335,447	324,132	659,579	1,405,280
Western Province ...	55	—	18	38	—	137,874	132,603	270,477	510,587
<b>TOTALS ...</b>	<b>443</b>	<b>2</b>	<b>162</b>	<b>328</b>	<b>97</b>	<b>1,092,948</b>	<b>988,975</b>	<b>2,081,923</b>	<b>4,426,905</b>



APPENDIX X

MISSION MEDICAL SERVICES

	Number of Hospitals etc.	BEDS				IN-PATIENTS ADMIS- SIONS	OUT-PATIENTS	
		I. GENERAL HOSPITALS WITH RESIDENT DOCTORS			Total Atten- dances		New Cases	
		European	Asian	African				Total
<i>Central Region</i>								
Central Province	3	3	—	219	222	4,787	102,791	26,987
S. Highlands Province	2	—	—	80	80	2,626	65,973	26,188
<i>Eastern Region</i>								
Eastern Province	1	—	—	120	120	3,038	37,025	7,972
Southern Province	6	20	23	448	491	8,317	210,077	38,014
<i>Northern Region</i>								
Northern Province	2	2	—	100	102	2,069	19,533	11,209
Tanga Province	4	5	17	296	318	6,948	95,686	18,805
<i>Western Region</i>								
Lake Province	5	8	38	369	415	5,728	183,320	51,762
Western Province	3	1	—	130	131	1,703	33,968	13,103
<b>TOTALS. General hospitals with resident doctors</b>	<b>26</b>	<b>39</b>	<b>78</b>	<b>1,762</b>	<b>1,879</b>	<b>35,216</b>	<b>748,373</b>	<b>194,050</b>
		<b>II. HOSPITALS WITHOUT RESIDENT DOCTORS (Units with more than 20 beds)</b>						
<i>Central Region</i>								
Central Province	3	—	—	103	103	4,067	48,879	21,189
S. Highlands Province	6	8	1	271	280	4,838	144,409	44,990
<i>Eastern Region</i>								
Eastern Province	3	—	—	118	118	1,086	33,205	20,539
Southern Province	15	16	12	726	754	16,736	371,538	86,432
<i>Northern Region</i>								
Northern Province	5	—	4	189	193	4,133	85,641	44,477
Tanga Province	2	—	—	95	95	1,625	46,098	11,024



APPENDIX X (contd.)

MISSION MEDICAL SERVICES

	Number of Hospitals etc	BEDS				IN-PATIENTS ADMIS- SIONS	OUT-PATIENTS	
		European	Asian	African	Total		Total Atten- dances	New Cases
<i>Western Region</i>								
Lake Province ...	4	—	12	230	242	2,541	60,379	18,338
Western Province ...	5	—	11	180	191	2,587	109,684	39,801
TOTALS. Hospitals without resident doctors ...	43	24	40	1,912	1,976	37,613	899,833	286,790
<i>Central Region</i>								
Central Province ...	4	—	—	64	64	1,712	65,284	10,144
<i>Eastern Region</i>								
Eastern Province ...	4	—	—	33	33	230	58,099	33,937
Southern Province ...	7	—	—	139	139	2,544	165,390	31,192
<i>Northern Region</i>								
Northern Province ...	4	—	—	80	80	1,460	35,389	24,523
Tanga Province ...	1	—	—	20	20	538	8,143	3,280
<i>Western Region</i>								
Lake Province ...	2	—	—	40	40	1,180	59,510	23,772
TOTALS. Dispensaries ...	22	—	—	376	376	7,664	391,815(a)	126,848
<i>Northern Region</i>								
Mental Hospital, Lutindi ...	1	—	—	125	125	—	Not available	—
TOTALS. Special hospitals ...	1	—	—	125	125	—	—	—
TERRITORIAL TOTALS ...	92	63	118	4,175	4,356	80,493	2,040,021(a)	607,678

(a) In addition 506,737 out-patient attendances are recorded from mission out-patient dispensaries.



APPENDIX XI.—MATERNITY AND CHILD HEALTH SERVICES

A. GOVERNMENT MATERNITY AND CHILD HEALTH SERVICES

(Units providing Ante-Natal Clinics and Child Health Clinics)

	No. of Units	ANTE NATAL CLINICS		CHILD HEALTH CLINICS		Total Confinements Attended	Normal Deliveries	Miscarriages & abortions	Abnormal Deliveries	Live Births	Still Births	Deaths mothers
		First attendances mothers	Total attendances mothers	First attendances children	Total attendances children							
<i>Central Region:</i>												
Central Province	1	1,334	1,943	255	843	145	100	23	22	115	13	—
Southern Highlands Province	2	490	1,872	54	108	325	290	12	23	274	26	1
<i>Eastern Region:</i>												
Eastern Province	1	183	663	690	1,920	90	80	17	10	84	6	4
<i>Northern Region:</i>												
Northern Province	2	1,201	3,299	—	—	699	586	62	51	585	52	2
Tanga Province	3	1,254	6,733	807	12,502	583	545	15	24	534	35	6
<i>Western Region:</i>												
Lake Province	4	2,556	8,624	1,604	9,110	780	676	62	73	710	42	11
Western Province	3	5,900	10,236	3,087	12,128	1,685	1,562	96	27	1,601	74	25
Dar es Salaam	2	1,906	8,495	1,483	21,518	1,414	1,274	85	55	1,347	67	16
Totals	18	14,824	41,865	7,980	58,129	5,721	5,113	372	285	5,250	315	65



APPENDIX XI.—MATERNITY AND CHILD HEALTH SERVICES

B. MISSION MATERNITY SERVICES

(Units providing Ante-Natal Clinics and Child Health Clinics)

	No. of Units	ANTE NATAL CLINICS		CHILD HEALTH CLINICS		Total Confinements Attended	Normal Deliveries	Miscarriages & abortions	Abnormal Deliveries	Live Births	Still Births	Deaths mothers
		First attendances mothers	Total attendances mothers	First attendances children	Total attendances children							
<i>Central Region:</i>												
Central Province	5	2,262	8,996	903	3,357	1,441	1,387	47	7	1,335	75	5
Southern Highlands Province	7	1,303	2,557	1,537	7,044	385	355	29	1	339	17	3
<i>Eastern Region:</i>												
Eastern Province	1	148	680	68	99	142	131	11	—	131	4	1
Southern Province	13	3,116	16,936	3,501	24,386	928	823	59	76	852	61	17
<i>Northern Region:</i>												
Northern Province	2	927	4,554	—	—	300	248	33	19	249	18	3
Tanga Province	8	6,723	30,736	2,962	12,949	1,847	1,592	144	111	1,659	105	18
<i>Western Province:</i>												
Lake Province	9	6,525	13,704	1,891	4,996	1,921	1,693	142	126	1,732	139	12
Western Province	8	2,450	12,984	2,698	15,981	1,225	1,146	69	10	1,084	61	2
<b>Totals</b>	<b>53</b>	<b>23,454</b>	<b>91,147</b>	<b>13,560</b>	<b>68,812</b>	<b>8,189</b>	<b>7,375</b>	<b>534</b>	<b>350</b>	<b>7,381</b>	<b>480</b>	<b>61</b>



APPENDIX XI.—MATERNITY AND CHILD HEALTH SERVICES

C. NATIVE AUTHORITY MATERNITY SERVICES

	No. of Units	ANTE NATAL CLINICS		CHILD HEALTH CLINICS		Total Confinements Attended	Normal Deliveries	Miscarriages & abortions	Abnormal Deliveries	Live Births	Still Births	Deaths mothers
		First attendances mothers	Total attendances mothers	First attendances children	Total attendances children							
<i>Central Region:</i>												
Central Province ...	8	986	1,083	1,132	1,612	1,552	1,520	20	12	1,517	15	-
Southern Highlands Province ...	-	-	-	-	-	-	-	-	-	-	-	-
<i>Eastern Region:</i>												
Eastern Province ...	-	-	-	-	-	-	-	-	-	-	-	-
Southern Province ...	-	-	-	-	-	-	-	-	-	-	-	-
<i>Northern Region:</i>												
Northern Province ...	3	3,254	6,307	622	1,323	1,014	974	40	-	951	23	7
Tanga Province ...	3	706	6,651	145	548	618	588	30	-	570	20	4
<i>Western Region:</i>												
Lake Province ...	3	1,635	2,193	230	297	849	793	48	2	775	23	4
Western Province ...	5	1,908	4,716	2,612	4,580	826	813	13	-	817	15	-
<b>Totals ...</b>	<b>22</b>	<b>8,489</b>	<b>20,950</b>	<b>4,741</b>	<b>8,360</b>	<b>4,859</b>	<b>4,688</b>	<b>151</b>	<b>14</b>	<b>4,630</b>	<b>96</b>	<b>15</b>



APPENDIX XII  
LEPROSARIA

(Leprosy treatment centres—Government and Mission)

MEDICAL REGION	Number of Leprosaria	RESIDENT STAFF				Leprosy Patients admitted during year	Discharged	Absconded	Births	Death from the disease	Death from other causes	Leprosy patients resident at 31st Dec. 1952			Clinical Classification active cases			Cases on Sulphone Therapy			In-patient burnt out cases		Non-leprosy persons resident 31st Dec.		
		Doctors	Nurses SRN.	Medical Assistants (Govt. Cert.)	Others							Men	Women	Children 14 and under	Lepromatous	Tuberculoïd	Mixed	Men	Women	Children 14 and under	Without deformity	With deformity	Adults	Children 14 and under	
<b>CENTRAL:</b>																									
Central Province	2	1	4	-	14	89	37	29	5	18		337	327	103	211	450	106	179	108	42	40	58	14	42	8
Southern Highlands Province	1	1	1	-	11	236	99	26	-	6		221	106	20	82	255	10	221	106	20	-	-	53	-	-
<b>EASTERN:</b>																									
Eastern Province	1	-	1	-	5	204	21	48	-	2		86	47	19	108	34	10	86	47	19	-	-	17	10	
Southern Province	5	2	2	1	22	340	268	57	10	38		1,027	756	153	410	1,219	162	643	396	120	58	64	163	236	
<b>NORTHERN:</b>																									
Northern Province	1	-	-	1	1	2	2	-	-	1		15	2	-	4	5	4	15	2	-	-	4	-	-	-
<b>WESTERN:</b>																									
Lake Province	2	3	4	-	33	33	62	30	10	4		367	235	174	208	548	20	367	235	174	-	-	64	53	
Western Province	2	2	3	4	4	4	1	-	3	1		68	49	10	28	70	20	64	44	10	-	8	-	-	
DAR ES SALAAM	1	-	-	2	2	19	8	-	-	-		37	14	1	30	19	3	37	14	1	-	-	-	-	
<b>Totals</b>	<b>15</b>	<b>9</b>	<b>15</b>	<b>92</b>	<b>1,474</b>	<b>927</b>	<b>498</b>	<b>190</b>	<b>28</b>	<b>70</b>	<b>2,158</b>	<b>1,536</b>	<b>480</b>	<b>1,081</b>	<b>2,000</b>	<b>335</b>	<b>1,612</b>	<b>952</b>	<b>386</b>	<b>98</b>	<b>138</b>	<b>311</b>	<b>349</b>		



APPENDIX XIII.—MEDICAL TRAINING

APPROVED MEDICAL AND NURSING TRAINING CENTRES, TANGANYIKA

Category of Student	Training Centre	Training Authority	Length of Course (Years)	Total Students under training in 1952	Students Qualified 1952	Total Qualified in each category in 1952
Medical Assistants ...	Dar es Salaam	Government	3	38	10	16
	Bumbuli	Lutheran Mission	3	27	6	
Laboratory Assistants ...	Dar es Salaam	Government	3	10	2	2
Pharmaceutical Assistants ...	Dar es Salaam	Government	3	11	2	2
Hospital Stewards Assistants	Dar es Salaam	Government	3	6	6	6
Malaria Assistants ...	Amani	Government	2	12	5	5
Assistant Health Inspectors ...	Kongwa	Government and O.F.C.	3	12	-	-
Rural Medical Aids ...	Mwanza	Government	2	23	6	20
	Minaki...	U.M.C.A.	2	21	14	
African Nurses...	Mweka and Moshi (male and female)	Government	3	123	24	57
	Mvumi (male and female)	C.M.S.	3	45	10	
	Peramiho (male and female)	Benedictine	3	13	-	
	Mnero (male)	Benedictine	3	21	5	
	Minaki (male)	U.M.C.A.	3	4	2	
	Lulindi (female)	U.M.C.A.	3	17	4	
	Magila (female)	U.M.C.A.	3	24	2	
	Sumve (female)	White Fathers	3	11	-	
	Kongwa (male)	O.F.C.	3	39	10	
	Midwives ...	Dar es Salaam	Government	1 or 2	11	
Myumi		C.M.S.	1 or 2	8	4	
Ndanda		Benedictine	2	13	3	
Magila		U.M.C.A.	1 or 2	5	3	
Health Nurses...	Sumve	White Fathers	1 or 2	8	3	-
	Tukuyu	Government	2	12	-	



