COLONY AND PROTECTORATE OF KENYA.

ANNUAL MEDICAL REPORT.

FOR THE

YEAR ENDING 31ST DECEMBER, 1920.

No.16/621/64.

MEDICAL DEPARTMENT,
HEAD OFFICES,
NAIROBI,
8th September, 1921.

Sir,

I have the honour to submit, for the information of His Excellency the Acting Governor and for transmission to the Right Honourable the Secretary of State, the Medical Report on the health and sanitary condition of the Colony and Protectorate of Kenya for the year 1920, together with the Returns, &c., appended thereto.

I have the honour to be,

Sir,

Your obedient servant,

John S Gilks

PRINCIPAL MEDICAL OFFICER,
Colony & Protectorate of Kenya.

The Honourable,
The Acting Colonial Secretary,
NAIROBI.

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I.- ADMINISTRATION.

Section I.- Departmental.

1.- ESTABLISHMENT.

The Medical Staff of the Colony as sanctioned for the year 1920 was as follows:-

ADMINISTRATIVE DIVISION.

Principal Medical Officer	1
Deputy Principal Medical Officer	1
Chief Sanitation Officer	1
Office Superintendent	1
European Clerks	2
3rd Grade Clerks	5
4th Grade Clerks	14
5th Grade Clerks	6
Medical Storekeeper	1
Issuers of Medical Stores	2
Messengers and Packers	15

MEDICAL DIVISION.

Senior Medical Officers	5
Resident Surgeon, European Hospital, Nairobi	1
Dental Surgeon	1
Medical Officers	19
District Surgeons	3
European Dispensers	4
Matron	1
Nursing Sisters	25
Male Nurses	2
Superintendent	1
European Warders Lunatic Asylum	2
Matron	1
Assistant Matron	1
Assistant Surgeons	8
Sub-Assistant Surgeons	47

MEDICAL DIVISION.- CONTD.

Compounders	18
Native Hospital Attendants	(as necessary)
Native Asylum Attendants	(as necessary)

SANITATION DIVISION.

Sanitation Officers	2
Senior Medical Officers of Health	3
Medical Officers of Health	8
Sanitary Inspectors	14
Nurses	2
European Clerk	1
Superintendent, Infectious Diseases Hospital	1
Vaccinators	57
Mechanics for Clayton disinfectors	4
Native Hospital Attendants, etc. ...	(as necessary)

LABORATORY DIVISION.

Senior Bacteriologist	1
Assistant Bacteriologists	2
European Laboratory Assistant	1
Asiatic Laboratory Assistants	3
Native Laboratory Attendants	(as necessary)

2.- APPOINTMENTS.

The following appointments were made during the year:-

Medical Officers.

Briscoe, R. C., 23rd March, 1920.

de Beer, H. S., 7th May, 1920.

Brainbridge, C. V., 23rd December, 1920.

Cross, G.(District Surgeon), 1st October, 1920.

Dakers, B. W., 25th June, 1920.

Guinness, K. W. N.(temporary), 1st May, 1920.

Peacock, M. B., 17th April, 1920.

Pope, G. W., 31st December, 1920.

Welch, H. H. V.(Resident Surgeon), 15th August, 1920.

APPOINTMENTS.- CONTD.

Nursing Sisters.

Aitken, Miss M., 27th August, 1920.

Buckley, Miss G. M., 17th September, 1920.

Cameron, Miss I., 18th August, 1920.

Edwards, Miss M., 6th August, 1920.

Froneman, Miss E. M., 1st August, 1920.

Hayward, Miss H., 6th August, 1920.

Murdoch, Miss J. D., 25th August, 1920.

Munro, Miss M. B., 10th September, 1920.

Laboratory Assistant.

Bailey, F. A., 20th August, 1920.

Dispenser.

Edmonds, E. R., 23rd December, 1920.

European Clerks.

Scattergood, G. E., 19th July, 1920.

Webb, A. E. W., 13th August, 1920.

Assistant Surgeon.

A. Whittle, 4th November, 1920.

Sub-Assistant Surgeons.

Sayed Asghar Ali, 17th February, 1920.

Gokul Chand, 18th June, 1920.

Karim Bakhsh, 1st April, 1920.

Munshi Ram Gupta, 11th January, 1920.

Pathreskar, A. K., 16th August, 1920.

Rana, C. D., 28th August, 1920.

Compounders.

Beant Ram Sharma, 25th November, 1920.

Chanan Singh, 4th August, 1920.

Marathe, B. V., 4th August, 1920.

Pradhan, D. G., 9th September, 1920.

Rajey, B. G., 28th August, 1920.

Jagat Singh, 17th September, 1920.

APPOINTMENTS.- CONTD.

Clerks.

Basna, A. J., 18th September, 1920.

D'Souza, B. M., 4th August, 1920.

Figueiredo, J. N., 25th February, 1920.

Martyres, C. J., 14th April, 1920.

Nunes, A., 6th December, 1920.

3.- REDUCTIONS IN STAFF.

Retired to Pension.

Dr. J. A. Haran, Deputy Principal Medical Officer, 18th June, 1920.

Dr. W. J. Radford, Principal Sanitation Officer, 6th December, 1920.

Transferred to Tanganyika Territory.

Dr. W. Owen-Prichard, 24th September, 1920.

Resignations, etc.

Dr. A. M. Boon, Temporary Medical Officer, resigned 30th August, 1920.

Dr. H. A. Bodaker, Temporary Medical Officer, resigned 10th May, 1920.

Dr. M. F. Murphy, Temporary Medical Officer, resigned 20th August, 1920.

Dr. J. M. Neill, Temporary Medical Officer, resigned 31st July, 1920.

Dr. A. C. Rendle, Temporary Medical Officer, resigned 6th March, 1920.

Dr. T. B. Welch, Temporary Medical Officer, resigned 31st July, 1920.

Mr. F. Cribb, Medical Dispenser, resigned 20th April, 1920.

Mr. R. Davis, clerk, transferred to Education Dept., 1st November, 1920.

Mr. C. C. Wellington, Sanitary Inspector, resigned 30th November, 1920.

Mr. J. D. Nightingale, Clerk, services terminated 9th March, 1920.

Mr. J. F. Davidson, Temporary Sanitary Inspector, services terminated 2nd February, 1920.

Mr. A. F. Summerfield, Nursing Orderly, transferred to Postal Dept., 19th July, 1920.

Resignations, etc. (Contd.)

Miss K. L. Fletcher, Nursing Sister, resigned 20th May, 1920.

Miss A. E. Drewe, Nursing Sister, resigned 10th March, 1920.

Miss A. B. Sewell, Nursing Sister, resigned 31st December, 1920.

Miss M. Walton, Nursing Sister, resigned 29th February, 1920.

Miss D. E. Godden, Asst.Matron, Asylum, resigned 4th February, 1920.

Mr. P. T. Bhatt, Compounder, resigned 30th November, 1920.

Mr. M. M. Chettanram, Compounder, resigned 29th February, 1920.

Mr. B. V. Marathe, Compounder, services terminated 12th December, 1920.

Mr. M. M. Jamidar, 4th Grade Clerk, resigned 31st July, 1920.

Mr. P. N. Pinto, 4th Grade Clerk, resigned 29th March, 1920.

Invalided.

Chief Vaccinator, Abdullah Ahmedi, 30th September, 1920.

Deaths.

4th Grade Clerk A. Alvares, 2nd February, 1920.

Attendant Infectious Diseases Hospital, K. S. S. Mudeliar, 19th November, 1920.

4.- LEAVE OF ABSENCE.

Name.	Appointment.	PERIOD.	
		Departed.	Returned.
Dr. A.D.Milne.	Prin:Med:Officer.	15. 8.20	-
Dr. G.R.H.Chell.	Medical Officer.	15. 7.20	-
Dr. W. H. Kauntze.	Bacteriologist.	15. 7.20	-
Dr. J. Pugh.	Medical Officer.	25. 9.20	-
Mr. H. Ogden.	Dispenser.	24. 2.20	-
Mr. F. Strawbridge.	Sanitary Inspector.	15. 8.20	-
Mr. W. Henfrey.	Supdt., Lunatic Asylum.	10.12.20	-
Mrs. L.A.Henfrey.	Matron, " "	10.12.20	-
Mrs. E.R.Barrett.	Matron.	8. 2.20	6.11.20
Miss I. Wilson.	Nursing Sister.	1. 5.20	-
Miss A.St.C.Nicholl.	- " -	15. 7.20	-
Miss M. A. Thomlinson.	- " -	15. 8.20	-
Miss F. O'Neill.	- " -	15. 8.20	-
Miss F. L. Neave.	Dispenser.	1.11.20	-

5.- RESUMPTION OF DUTY FROM LEAVE GRANTED IN 1919.

Name.	Appointment.	Date.
Dr. T.F.Lumb.	Medical Officer.	24. 7.20
Dr. P.F.Nunan.	- " -	24. 7.20
Dr. A.R.Paterson.	- " -	1.12.20
Dr. V.G.L.Van Someren.	Dental Surgeon.	31. 3.20
Dr. J.H.Thomson.	Medical Officer.	2. 7.20
Dr. C.J.Wilson.	Medical Officer.	6. 3.20
Mr. P. Cairns.	Sanitary Inspector.	23. 3.20
Mr. J.P.Cook.	- " -	20. 9.20
Mr. R.E.Williams.	- " -	19.11.20
Mr. J.B.Robertson.	Medical Storekeeper.	24. 7.20
Mr. H. Stanley.	Office Supdt.	19. 9.20
Miss E. M. Whitburn.	Nursing Sister.	26. 3.20
Mrs. S. J. Harrison.	- " -	25. 6.20

6.- STAFF POSTINGS THROUGHOUT THE YEAR.

THE COAST ZONE.

Dr. C. L. Chevallier, Senior Medical Officer, continued to act in this appointment till the end of April, when he was moved to Nairobi as Deputy Principal Medical Officer.

Dr. J. Pugh succeeded Dr. Chevallier as Acting Senior Medical Officer, Mombasa, until he proceeded on leave in September, when Dr. T. H. Massey was appointed in a like capacity to replace him.

Dr. J. Pugh was Medical Officer in charge of the European Hospital, Mombasa, until September, and was then relieved to proceed on leave by Dr. J. H. Thomson who remained in charge till the end of the year.

Dr. T. H. Massey was in medical charge of the Native Civil Hospital throughout the year.

Dr. A. S. Mackie was posted to Lamu in January and continued in medical charge of the Tanaland Province throughout the year.

Dr. G. Walker held the post of Medical Officer of Health a. Mombasa throughout the year.

THE MOUNTAINOUS ZONE.

Dr. A. D. Milne, C.M.G., Principal Medical Officer proceeded on leave in September pending retirement. Dr. J. L. Gilks succeeded him as Acting Principal Medical Officer for the remainder of the year.

Dr. W. H. Kauntze acted as Resident Surgical Officer of the European Hospital, Nairobi, till Dr. Gilks' return from England in April when the latter resumed his post. On being appointed Acting Principal Medical Officer Dr. Gilks was relieved by Dr. H. H. V. Welch as Resident Surgical Officer, in which appointment he continued for the remainder of the year.

Dr. F. L. Henderson, Senior Medical Officer, was in

charge of the Native Civil Hospital and Kathari Lunatic Asylum, Nairobi, throughout the year.

Dr. G. R. H. Chall was in medical charge of King's African Rifles, Police and Prison from January to July when he was succeeded by Dr. V. M. Fisher for the remainder of the year.

Dr. F. T. Auden was in medical charge of Nakuru and Naivasha Province till March when he was succeeded by Dr. C. J. Wilson who continued in the post till the end of the year.

Lieut.Col. M. C. Wetherell continued in medical charge at Eldoret throughout the year.

Dr. H. A. Bedeker was temporarily engaged as Medical Officer of Health, Nairobi, from January to May when he was succeeded by Dr. E. W. N. Guinness.

THE KENYA AND NYANZA PROVINCES.

Dr. P. A. Clearkin was in medical charge of the Kisumu Hospital and Nyanza Province from January to April when Dr. N. B. Peacock took over and he again was relieved in July by Dr. T. F. Lumb who continued in charge till the end of year.

Drs. R. C. Briscoe and N. B. Peacock did duty as temporary Medical Officer of Health at Kisumu during the early months of the year until the appointment of Dr. H. S. de Boer in July to that post.

Dr. T. B. Welch was in medical charge of Fort Hall hospital and Kenya Province till April when he proceeded home and was relieved by Dr. F. T. Auden.

Dr. H. R. A. Philp was District Surgeon at Nyeri throughout the year.

Dr. P. J. Nunan was appointed to the medical charge of Kakamega hospital and North Kavirondo District in July and still so employed.

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THE DESERT ZONE.

Dr. A. M. Boon was in medical charge of the Northern Frontier District till he proceeded on leave in June when Dr. R. C. Briscoe succeeded him.

Dr. J. H. Neill was in medical charge at Kimanyu until he went home in May when Dr. N. H. Peacock took up the duties.

7.- LABORATORIES.

Dr. W. H. Kauntze, Bacteriologist, was in charge till he proceeded on leave in July when the duties were taken over by Dr. P. A. Clearkin.

Annual reports on the work of the Laboratory are published.

8.- LIBRARIES.

A medical library is maintained at the Laboratory and a lesser one at the Headquarter Medical Offices both of which are available for personal reference by Medical Officers. Books are issued on loan to all Medical Officers who make application. The Libraries are being added to by the purchase of the latest medical publications from time to time.

SECTION II.- EXTRA DEPARTMENTAL.

9.- REGISTRATION OF MEDICAL PRACTITIONERS AND DENTISTS ORDINANCE.

The Ordinance governing registration came into force on the 24th September, 1919, since when and up to the end of the year the following have been placed on the Register:-

Registered Medical Practitioners	99
Licensed	6
Dentists	7

60 of the Medical Practitioners, including the Government Dental Surgeon, were in Government Service and 52 were private practitioners.

THE DESERT LOCUST.

Dr. A. H. Bean was in medical charge of the Northern Frontier District till he proceeded on leave in June when Dr. R. C. Briscoe succeeded him.

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During the year the following were admitted to the roll:-

Forbes, Armitage E.F.L., L.D.S.,R.F.P.S.,Glasg.

Richards, Norman Lloyd, M.R.C.S.,Eng.,L.R.C.P.,Lond.

Glanville, Ruby Ellen, M.B., B.S., U.Lond.

Peacock, Norman B., M.B., Ch.B., U.Glasg.

Norrie, Forster H.B., M.B., Ch.B., U.Aberd.

Anderson, Gerald V.W., M.R.C.S.,Eng.,L.R.C.P.,Lond.,
F.R.C.S.,Eng.,M.B.,B.S.,Lond.

Briscoe, Ralph C., M.R.C.S.,Eng., L.R.C.P.,Lond.

Guinness, Ernest W.N., L.R.C.P.& S.,Irel.,D.P.H.,Lond.

Irvine, Archibald C., M.B., Ch.B., U.Aberd.

Hemsted, Henry, M.R.C.S.,Eng.,L.R.C.P.,Lond.

Jog, Shridshar C., I.R.C.P.,L.R.C.S.,Edin.,
L.F.P.S.,Glasg.

de Boer, Henry S., M.R.C.S.,Eng., L.R.C.P.,Lond.,
D.P.H., Camb.

Cross, Geoffrey, M.R.C.S.,Eng.,L.R.C.P.,Lond.,
L.S.A.,Lond., M.D.U.,Durham.

Cunningham, James, M.B., B.S., R.U.Irel.

Cunningham, Robert A. M.B.,B.S.,R.U.Irel.,D.P.H.,
R.C.P.S.,Edin.,& R.F.P.S.,Glasg.

Paterson, Arthur ... M.B.,Ch.B.,U.Glasg.,D.P.H.,Camb.

Fox-Blake Arthur ... M.B.,B.Ch.,U.Oxford.,M.R.C.P.,Lond.,
M.D.U.,Oxford, F.R.C.P.,Lond.

Dakers, Bernard W., L.R.C.P.,Edin., L.R.C.S.,Edin.,
L.F.P.S., Glasg.

The Board nominated for the purpose of the Ordinance consisted of:-

Dr. R. W. Burkitt,

" C. L. Chevallier,

" W. J. Radford,

" J. A. Haran,

with the Principal Medical Officer as President and Registrar.

No meetings were held during the year.

10.—THE DRUGS AND POISONS ORDINANCE 1909.

This Ordinance controls the licensing of chemists and druggists, as well as the sale of poisons throughout the country.

Eighteen names have been placed on the register since the introduction of the Ordinance to the end of 1920. Of these three were by examination.

The Board appointed under the Ordinance consisted of the following:—

Mr. L. A. Howse,
" A. A. White,
" V. H. Kirkham,
Dr. C. L. Chevallier,
" W. J. Radford,
" J. A. Haran,

with the Principal Medical Officer as President and Registrar.

One meeting was held during the year.

II.- PUBLIC HEALTH.

(a) General Remarks.

THE COLONY AND PROTECTORATE OF KENYA.

The Public Health of the Colony and Protectorate has again showed during 1920 an improvement on that obtaining in the war and post war conditions. The weather conditions have been good and the resulting good harvest has reflected itself in a satisfactory condition of the public health. Epidemics of plague broke out in the North Kavirondo district, the Kikuyu Reserve and Mombasa and it is evident that the problems of this disease will become increasingly urgent throughout the country generally. The Vanga district was visited by small-pox and the distress caused by the disease itself was exaggerated from the fact that the natives deserted their villages and with them their crops. Both these epidemics are dealt with at length by the Acting Chief Sanitation Officer in his report.

A disquieting discovery was made in that it was found that typhus or a typhus-like disease is present in the country, and the problems caused by this will have to be faced. The disease has been undoubtedly present for years but it had been of such a mild type that it had caused no uneasiness; the virulence appears to be increasing and one death occurred. A description with a report on cases is presented as an appendix.

The long delayed arrival of new staff has allowed a commencement of the scheme for medical facilities in the Native Reserves and two Government centres have been opened. Even at this early date it is apparent that the scheme will prove a success.

The medical service of the King's African Rifles

is being reorganised. Hitherto the personnel of the military medical service has been entirely civilian and in the past this has given rise to difficulty with regard to status and more especially in the direction of pay and administration in the remote districts. With an enlisted subordinate service and a medical officer holding a local commission it is anticipated that a good deal of confusion will be obviated. The final word with regard to medical matters will remain as heretofore with the Principal Medical Officer.

Attempts are being made for the provision of more up-to-date methods of the treatment of venereal disease in the various native hospitals, and it is hoped that next year considerable progress will be made in this. The difficulty will be the necessary provision of suitable buildings. The results of treatment of syphilis with 914 have resulted in a certain demand among the native population and cases present themselves more readily. The longer and less startling effects of treatment for gonorrhoea results in weariness and a disinclination to continue treatment for a disease of which all the painful symptoms have disappeared.

There has been a large influx of European settlers during the year and the poor white element is beginning to show itself. The increase of the European population is reflected in the increased numbers admitted to hospitals and the increased births and deaths. Together with the increase in white population there is an increase in private medical practitioners with the result that the official return of disease is becoming less comprehensive.

The death rate among European officials was 14 per cent and among Native officials .54 per cent.

The total cases treated in the various hospitals and dispensaries show an increase of nearly ten thousand while the deaths show a gratifying decrease. The following table shows the figures for the past three years:-

	Cases.	Deaths.
1920.	132,329	899
1919.	122,901	1,253
1918.	122,643	2 30

European births and death[illegible]

Births ...

Deaths ...

Registration of [illegible] among the Asiatic and [illegible] are obtainable [illegible]

It is proposed [illegible]

A comprehensive [illegible] passed by the legislative [illegible] from Home. This bill [illegible] African legislation [illegible] to the country, [illegible] of Health with the [illegible] which will [illegible] throughout the Colony and Protectorate.

NATIVE RESERVES.

The year 1920 has seen the commencement of the long deferred scheme for the provision of Government medical centres in Native Reserves. On the return from leave of Dr. P. F. Nunan in August, this officer was posted to the North Kavirondo District and commenced work at Kakamega, the new station established on the abandoning of Mumias condemned on account of its extreme unhealthiness and high mortality among officials. Dr. B. W. Dakers on arriving in the country in September was posted to South Kavirondo with headquarters at Kisii.

In 1919 two branches of the Scotch Mission at Tumu-tumu and Kikuyu were subsidised by Government and this arrangement was continued throughout 1920.

Even at this early stage it is evident that the two Government stations are filling a long felt want and performing work of the utmost value from the humanitarian, the administrative and the economic point of view. In addition to these all-important Public Health requirements will be fulfilled by the establishment of units in Native Reserves, and the infectious diseases of the country will be tackled at the root i.e. in the Reserves, the reservoirs of the diseases and not as heretofore in the various townships to which the disease has penetrated. From the humanitarian point of view there can be no doubt as to the value of this section of the activities of the Medical Department and the administration of the country will be rendered easier from the fact that the native has tangible evidence that Government is something more than a mere tax-collector. The economic factor enters very largely also into the question of the provision of medical units in Reserves; the fighting of infectious disease and

medical attention, even of the simplest, for disorders which if left untreated or when treated by native methods often result in permanent disablement, can only result in an increase of the population able to perform work and pay taxes.

The system which is being adopted is the provision of a central hospital with small dispensaries situated at the denser centres of population within easy reach of the central station. The dispensaries are manned by dressers able to read and write Swahili who are trained at the central hospital to do dressings and give simple remedies and these boys with supervision at frequent intervals by the Medical Officer do work of the utmost value in the dressing of ulcers and wounds. To illustrate the value of these trained dressers it is only necessary to mention that the common native practice in Kavirondo for the dressing of wounds and ulcers is to apply a cow dung poultice which remains in position for a varying time and results usually in the production of a deep fungating ulcer. These ulcers which frequently involve bone muscle and tendon are one of the commonest causes of permanent disability.

The good results of the establishment of dispensaries are such that frequent application is made by the local chiefs for the provision of one for their own particular districts, and the building, wattle and daub, is erected willingly by the local population without cost to Government, when it is decided that a particular district is suitable and a dresser is available. Serious cases are brought from the dispensaries to the central hospital.

At the end of the year in the North Kavirondo district nine dispensaries were in existence and arrangements were on foot for the provision of more. At Kisii

it had not been possible to do more than to get the central station under way and to begin to obtain the confidence of the natives. It is most satisfactory to note that even after such a short time the Kisii natives are trusting the European doctor and are beginning to bring in their women and children for treatment.

The system of a central hospital with sub-dispensaries is one which was originally adopted by the Scotch Mission who are doing medical work of the greatest value among the [illegible] already mentioned, receive a subsidy.

The work in North Kavirondo [illegible] largely consisted in measures to combat the serious outbreak of plague which occurred in that district. The steps which have been taken have consisted mainly in the prophylactic inoculation of the population, and this work has been carried out mainly through the agency of trained inoculators who have been stationed at the bridges over the large rivers forming the boundaries of the district. The adoption of this method resulted in the inoculation of a very large proportion of the population as shown by the almost universal incidence of the dated and named inoculation tickets issued to those inoculated. At the same time as the inoculation was being carried out, an educational campaign was instituted and it is hoped that next year it will be possible to report progress with regard to the undertaking of a more comprehensive anti-plague campaign than has been hitherto possible.

At Kisii it is evident that a large part of the work will consist in the combating of yaws, the incidence of which appears to be as extensive as in Kikuyu where the Scotch Mission are carrying out numerous treatments.

During the year under review the figures for the native reserve centres have been incorporated among those of the various districts. If at all possible, I propose next year to give a separate return for this branch. The figures for the Scotch Mission as provided by them are as follows:-

	In-patients.	Out-patients.
Kikuyu	1750	16003
Tumu-Tumu	1604	59867

During the financial year 1920-21 the sum of £10,569 was provided in the Estimates for the provision of Government medical units in Native Reserves and this sum is being expended on the provision of permanent small hospitals and medical officers' houses at Kisii and Machakos. At Kisii there is at present a small stone and wood and iron dispensary with accommodation for six beds but this is hopelessly inadequate for the work at present being undertaken and 't has been found necessary to provide grass huts for the accommodation of the less serious cases, ulcers and yaws which have applied. At Kakamega which is not yet definitely decided on as being the site of the new station in common with all the rest of the buildings the Hospital and medical Officer's house are constructed of wattle and daub.

It is proposed during 1921 to extend considerably the system of Government medical units in Native Reserves provided that personnel comes forward, and I hope to be able to record a considerable advance next year in this direction. I am convinced that the right method of working is by the Government starting their own units rather than by subsidising missions to do the work for them. By the establishment of

Government units the native is brought to realize that the money obtained from him by taxation is not being spent entirely on services of which, at present, he cannot see the benefit and, at the same time, the work is directly under the supervision and control of Government with no fear of arousing disputes with religious bodies to whom a subsidy may be refused or terminated.

[illegible] of the work and the policy [illegible] to medical work in the Native [illegible] for serious consideration. [illegible] for the study of [illegible] necessary [illegible] diseases [illegible] and [illegible] for [illegible] now [illegible] for [illegible] that at [illegible] all cases [illegible] confidence [illegible] advantages [illegible] and [illegible] taxation. [illegible] of seriously [illegible] will not have to be [illegible] as is done at the present time by the Missions.

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES AMONGST EUROPEAN OFFICIALS IN THE COLONY AND PROTECTORATE OF KENYA.

	1918.	1919.	1920.
Total number of officials resident.	909	1,118	1,259
Average number resident.	691	663	746
Total number on sick list.	679	748	574
Total number of days on sick list.	7,042	5,997	6,373
Average daily number on sick list.	19.29	16.43	17.41
Percentage of sick to average number resident.	2.79	2.47	2.33
Average number of days on sick list to each patient	10.37	8.01	11.12
Average [illegible] to each resident.	7.74	5.6	5.39
Total [illegible] invalided.	33	38	28
Percentage of invaliding to total resident	3.63	3.9	2.36
Total deaths.	10	15	4
Percentage of deaths to total residents.	1.10	1.34	.34
Percentage of deaths to average number resident.	1.44	2.26	.53
Number of cases of sickness contracted away from residence.	-	-	-

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES AMONGST NATIVE OFFICIALS IN THE COLONY AND PROTECTORATE OF KENYA.

	1918.	1919.	1920.
Total number of officials resident.	1,999	2,252	2,392
Average number resident.	1,614	1,717	1,762
Total number on sick list.	4,755	4,703	4,439
Total number of days on sick list.	33,563	33,159	30,053
Average daily number on sick list.	91.95	90.84	82.11
Percentage of sick to average number resident.	5.69	5.29	4.66
Average number of days on sick list to each patient.	7.05	7.05	6.77
Average sick time to each resident.	16.79	14.72	13.29
Total number invalided.	63	62	60
Percentage of invaliding to total residents.	3.15	2.75	2.55
Total deaths.	33	15	12
Percentage of deaths to total residents.	1.65	.66	.53
Percentage of deaths to average number resident.	2.04	.87	.68
Number of cases of sickness contracted away from residence.	-	-	-

I.- THE MOUNTAINOUS ZONE.

(a) General Remarks.

The total figures for admissions to Hospital in this area show an increase of 472 on the figures for 1919, but analysis of the subjoined table reveals the fact that there has been a considerable drop in the number of admissions for officials both Native and European, a small increase in [illegible] general pop[illegible]ation [illegible] [illegible]ted [illegible] for [illegible]

	[illegible]	[illegible]9.	[illegible]	[illegible]	[illegible]	[illegible]18.
European Officials	[illegible]	[illegible]	[illegible]	[illegible]	1	9
Native Officials	[illegible]	[illegible]	[illegible]0	6	6	27
European General Population	[illegible]	218	246	19	11	21
Native General Population	7,[illegible]	6,938	6,9[illegible]9	488	691	1,048

It is in this part of the country that the cases of typhus have all occurred thus coinciding with the fact that the disease is more common in the temparate zones than in the tropical.

During the year it has been impossible to do anything with regard to the provision of a new native

hospital at Nairobi. The present building dating back as it does to the early days of European occupation and constructed with wooden floors and corrugated iron walls is entirely unsatisfactory and unsuitable. It is hoped that when the Loan project materializes, it will be possible for an up-to-date hospital to be constructed and money has been earmarked for this purpose.

[illegible] DISEASES

[illegible] -borne.

[illegible] a large drop during [illegible] treated [illegible] more numerous. The [illegible] all indicate that [illegible] from outside although [illegible] statistics from [illegible] are interesting as [illegible] benign [illegible] pre-war figures [illegible] subtertian [illegible] compared with benign tertian. [illegible]

Subtertian [illegible]

Benign tertian [illegible] 0

[illegible] years at the close [illegible] showed an equal incidence of benign and subtertian malaria. Quartan malaria still remains a rare disease in the Colony and Protectorate.

The total of cases treated and deaths for the past three years is as follows:-

	Cases.	Deaths.
1920.	4,569	31
1919.	7,975	26
1918.	4,499	22

INFECTIOUS OR EPIDEMIC. (Contd.)

Cerebro-spinal Meningitis.- A decrease in the numbers of cases for this disease occurred and all were amongst natives.

The figures are:-

	Cases.	Deaths.
1920.	41	18
1919.	69	36
[illegible]	52	28

[illegible] A marked [illegible] is recorded [illegible] the pre[illegible] [illegible]ough [illegible] for [illegible] not ob[illegible] have a [illegible] on [illegible] amoebic and bacillary [illegible] European Hospital [illegible] 9 cases [illegible] [illegible]ate[illegible] from [illegible] cases. The Nakuru figu[illegible]

The comparative [illegible] are [illegible]

	[illegible]	Deaths.
1920.	[illegible]	23
1919.	[illegible]4	103
1918.	[illegible]	[illegible]

Typhoid Group.- The figures for this important group of diseases show a large drop from the preceding year. One case of para-typhoid is reported, and I am convinced that the more systematic examination of blood in cases of pyrexia of uncertain origin and apparently mild cases of typhoid will reveal the fact that there is a considerable incidence of this infection. Of the 18 cases reported 15 were in Europeans, and the locality of the cases shows that the disease is wide-spread over the area under consideration. Seven of

these European cases occurred at Nairobi, 4 at Nakuru and 1 each at Naivasha, Eldama-Ravine, Rumuruti, and Kacheliba.

The comparative table is as follows:-

	Cases.	Deaths.
1920.	18	-
1919.	40	8
1918.	17	2

__Leprosy__.- Eleven cases were reported, as compared with 3 last year and 8 in 1918.

__Small-pox__.- Showed a notable decrease on the figures for the preceding years, as is evident from the following:-

	Cases.	Deaths.
1920.	29	4
1919.	157	48
1918.	1,047	282

__Beri-beri__.- Fifty nine cases were reported during the year with 2 deaths. Of these cases 49 occurred at Makindu, the patients being labourers employed in the various fuel camps on the Railway in the waterless district to the east of that station. Thirty two of the 49 cases occurred at one camp. It is unfortunately a fact that certain of the Indian fuel contractors are not too scrupulous with regard to the food supplied to their labourers and without more frequent inspection, it is almost certain that outbreaks of this disease will recur.

__Tetanus__.- Six cases occurred, three of which were fatal. This is an increase on the previous two years when only one case was recorded.

__Influenza__.- This disease still makes itself evident throughout the country, but the type is not

more virulent than last year. The number of cases 2,685 is a large increase on the 1,006 of last year, while the deaths, 19, were the same in both cases.

Pneumonia.- The figures for this show an increase on the numbers of the previous year and approximate to those of 1918, the figures being:-

	Cases.	Deaths.
1920.	941	225
19[illegible].	[illegible]0	198
19[illegible].	[illegible]5[illegible]	[illegible]8

[illegible]

Tuberc[illegible].- [illegible]

[illegible]

The [illegible] table of Cases and deaths is as follows:-

	Cases.	Deaths.
1920.	93	14
1919.	99	9
1918.	64	4

__Venereal diseases.__- There is no doubt that these diseases are on the increase, though I am inclined to think that the increase in the case of syphilis is not so large as is popularly supposed owing to confusion between syphilis and yaws. As stated in the general remarks, efforts are being made to provide more up-to-date facilities for treatment of this class of case[illegible]

[illegible] as [illegible]

			Patients [illegible]	
	[illegible]	[illegible]	1919.	1918.
Syphilis	[illegible]	40[illegible]	341	153
Gonorrhoea	[illegible]	37[illegible]	344	[illegible]

[illegible] due to syphilis [illegible] 2 [illegible] inherited.

[illegible] for the past [illegible] years [illegible]

		[illegible]	1919	1918.
Cestoda.	T. solium	26	[illegible]	144
	T. saginata	6	2	4
Nematoda.	A. lumbricoides	[illegible]	[illegible]	25
	T. dispar	1	[illegible]	4
	A. duodenale	45	141	2
	O. vermicularis	2	-	5

(b) EUROPEAN OFFICIALS.

During 1920 the daily average of sick 12.94 was slightly larger than last year when the number was 11.67, but this is accounted for by the fact that an average of 516 officials were resident in the year under consideration, as against [illegible]65 in the year before.

[illegible] slight [illegible] in the [illegible]ly [illegible]

[illegible]

[illegible]	In-[illegible]	376	Out-patients	[illegible]
[illegible]		491	"	[illegible]
1918.		4[illegible]	"	[illegible]234

The drop [illegible] the number of deaths is remarkable being only 3 as against 10 and 9 in the two preceding years. The deaths were due to pneumonia (2) and carcinoma of the sigmoid (1). The last case unfortunately was not brought to hospital till some days [illegible] obstruction had supervened.

The principal [illegible] of admission were:- [illegible] digestive diseases (126), dysentery ([illegible]) re-[illegible] [illegible] diseases ([illegible]9), influenza ([illegible]) and [illegible]

[illegible]

23 [illegible] Alco-holi[illegible] [illegible] (4), cephalalgia (1), epilepsy [illegible] ear (1), tachycardia (2), bronchitis (1), [illegible] (1), asthma (1), dyspepsia (1), duodenal ulcer (1), abscess of liver (1).

TABLE SHOWING THE SICK, INVALIDING AND DEATH
RATES AMONGST EUROPEAN OFFICIALS
IN THE MOUNTAINOUS ZONE.

	1918.	1919.	1920.
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	49[illegible]	[illegible]
[illegible]	[illegible]	[illegible]61	[illegible]
[illegible] number [illegible] sick [illegible]	[illegible].30	11.67	12.9[illegible]
[illegible] sick to average number resident	[illegible].96	2.[illegible]	2.50
Average number of days on [illegible]	[illegible].52	8.67	12.59
Average sick time [illegible] each	[illegible].15	5.13	5.43
Total number invalided.	[illegible]	[illegible]	[illegible]
Percentage of inv[illegible]	[illegible].6[illegible]	[illegible] 77	2.06
Total deat[illegible]	[illegible]	[illegible]	3
Percentage of de[illegible]	[illegible]	[illegible]	.34
[illegible]	[illegible]	[illegible]	.8[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

(c) NATIVE OFFICIALS.

The total numbers recorded during the triennial period are as under:-

	In-patients.	Out-patients.
1920.	3,012	517
1919.	3,137	519
1918.	3,120	717

The chief causes of illness were:- Malaria 937, influenza 571, respiratory 298, dysentery 75, rheumatism 101, injuries 350.

Malarial and respiratory diseases show decreases as compared with last year.

[illegible] deaths were recorded being a similar number to [illegible] year. The causes were:- Dysentery (1), [illegible] apoplexy (1), ulceration of stomach (1).

[illegible] were included, the causes were:- Malaria [illegible] (5), debility (9), nervous affections [illegible] dysentery (1), [illegible] (2), blackwater (1), [illegible] (1), tubercle [illegible] affections (3), [illegible] abscess (1), [illegible] (5), digestive (2), [illegible] (2).

[illegible] 47 [illegible] included in the [illegible]

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES AMONGST NATIVE OFFICIALS IN THE MOUNTAINOUS ZONE.

	1918.	1919.	1920.
Total number of officials resident.	1,102	1,337	1,370
Average number resident.	914	1,077	987
Total number on sick list.	3,120	3,137	3,012
Total number of days on sick list.	23,576	22,747	20,459
Average daily number on sick list.	64.59	62.32	55.89
Percentage of sick to average number resident.	7.06	5.78	5.66
Average number of days on sick list to each patient.	[illegible]	[illegible]	6.79
Average sick time to each resident.	[illegible]	[illegible]	14.9
Total number invalided.	[illegible]	[illegible]	5
Percentage of invaliding to resident.	[illegible]	[illegible]	.58
Total deaths.	[illegible]	[illegible]	3.46
Percentage of death.	[illegible]	[illegible]	[illegible]
Percentage of deaths to average number resident.	[illegible]	[illegible]	[illegible]
Number of cases of sickness contracted away from residence.	[illegible]	[illegible]	[illegible]

(d) GENERAL EUROPEAN POPULATION.

The influx of European settlers into the country is reflected in the increased numbers of in-patients as shown in the returns while the out-patients show a large drop owing probably to the advent of private medical practitioners.

The figures for the past three years are:-

	In-patients.	Out-patients.
1920.	144	72
1919.	128	64
1918.	111	72

(e) GENERAL NATIVE POPULATION.

The numbers which presented themselves for treatment show an increase in the numbers, as compared

with those of the preceding years as is shown in the following table:-

1920	In-patients	7,308	Out-patients	38,075
1919	"	4.23[illegible]	"	35,19[illegible]
1918	"	[illegible]	"	[illegible]

The principal causes of [illegible] were:- Malaria [illegible] 591, [illegible] 3,00[illegible] [illegible] 90[illegible] [illegible] [illegible] 6,25[illegible] [illegible]

Of the above there are large increases in the cases of influenza, pneumonia and respiratory diseases. While the numbers of malaria and dysentery are lower than last year.

Comparison of the numb[illegible] of deaths and the death rate to admissions reve[illegible] a very gratifying drop as is shown in the following table.

	Deaths.	Percentage.
1920	4[illegible]8	6.67
1919	6[illegible]	9.95
1918	1,0[illegible]8	15.05

The causes of death were pneumonia (219 [illegible] [illegible] 50, malaria ([illegible]) tuberculosis (13), [illegible] meningitis (10) [illegible]

[illegible]

II. - THE COAST ZONE.

(a) General Remarks.

There is a decrease in the number of the native general people, [illegible] has applied for treatment [illegible] section of the community [illegible] the previous [illegible] conditions, [illegible] who are possessed of facilities [illegible] are impossible for the stranger to [illegible]

The lack of facilities for pathological investigation at the Coast is making itself more apparent as time goes on.

(i) GENERAL DISEASES.

Malaria and local injuries again show the largest totals of the diseases which came under notice. Ulcers were another very common disability for which [illegible] sought.

[illegible] table of admissions and deaths for [illegible] as follows:

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
European General Population	[illegible]	319	173			
Native General Population	3,649	4,305	4,762	195	1[illegible]	225

(ii) COMMUNICABLE DISEASES.

Mosquito or Insect-borne.

Malaria.- There was an increase of over a thousand on the figures of last year and the figures approximate to those of 1918. This increase is due partly to an undue prolongation of the wet season with an increase of cases and partly to a change in the system of nomenclature. In 1919 only such cases as showed parasites in the blood or other unmistakable signs were classed as malaria, while in the present year this classification was not rigidly adhered to. A curious point is that the proportion of benign and subtertian infections has not, on the Coast, returned to the pre-war level as in the Mountainous Zone. The figures for the European Hospital, Mombasa, are:-

Benign tertian	79
Subtertian	3[illegible]
Undifferentiated	2

The total numbers of malaria treated and deaths for the [illegible] three years are:-

[illegible] 1920 Admissions 5,103 Deaths 6

4,8[illegible] [illegible]

[illegible]

[illegible] and [illegible] 2 death[illegible] [illegible]

[illegible]

[illegible] were treated

[illegible] of the [illegible]

[illegible] and Pate Islands.

INFECTIOUS OR EPIDEMIC.

Cerebro-spinal-meningitis.- There has been no outbreak of this disease and only occasional cases

have come under observation. The figures for the past three years are as follows:-

	Cases.	Deaths.
1920	7	6
1919	15	11
1918	18	11

Dysentery - The incidence of dysentery was lower than in either of the two preceding years. No figures are available as to the proportion of amoebic and bacillary infections. The figures are:-

	Cases.	Deaths.
1920	241	10
1919	328	29
1918	519	46

Seven of the above cases were Europeans but no deaths occurred in this section of the population.

Enteric.- Six cases in all were treated of which two were Europeans. No deaths occurred. One very severe case had been inoculated only eight months previously.

Leprosy.- Five admissions and two deaths were recorded in the [illegible] year.

[illegible] 3 ca[illegible] plague were treated as [illegible] previo[illegible]. The outbreak is fully [illegible] report of the Chief Sanitation Of[illegible]

[illegible] cases [illegible]

ob[illegible] the [illegible]

there was [illegible] of small-p[illegible] in [illegible]

district with [illegible] to

was impossible to deal adequately. No figu[illegible] e available for this epidemic.

The numbers which have been recorded for the past three years are:-

	Cases.	Deaths.
1920	12	1
1919	111	27
1918	36	9

[illegible].- [illegible] cases were treated and one died. In 1919 and 1918 the cases and deaths were respectively 6 cases and three deaths and [illegible] cases and one death.

Influenza.- This disease was [illegible] during 1920 [illegible] than in 1919 [illegible] [illegible] other parts [illegible] the [illegible]

[illegible] rapid [illegible] in these [illegible] disease.

The admissions and [illegible] the past three years are as follows:-

	Cases.	Deaths.
1920	83	20
1919	51	21
1918	63	21

Of the above cases, two occurred among the European General Population with no deaths.

<u>Venereal diseases.</u>- The steady increase in the numbers of cases is maintained, as the following table shows:-

Syphilis	[illegible]	[illegible]
Gonorrhoea	[illegible]	[illegible]

The [illegible] are reported as being [illegible] sufferers from this form of disease, possibly from their not adopting the custom of circumcision.

HELMINTHIC.

The cases [illegible] treatment are classified as follows:-

Cestoda [illegible]	[illegible]	110	[illegible]
T. [illegible]	[illegible]	34	[illegible]
Nematoda A. lumbricoides	[illegible]	188	[illegible]
[illegible] duodenale	[illegible]	59	[illegible]
T. dispar	-		

[illegible] OFFICIALS.

A [illegible] increase in both in and out patients [illegible] with the larger population. The [illegible] as follows:-

[illegible] (49) [illegible] influenza (18 [illegible] (27) [illegible] pationts [illegible] injuri [illegible] 19 [illegible] 120 [illegible] 173

Of the above the majority of cases came under the following headings:- malaria 7[illegible] digestive disorders 98, respiratory disorders 32, and injuries 44. One death from Bright's disease occurred.

Nine invalidings occurred as against 6 in 1919 and 10 in 1918. The causes were chronic malaria (1), anaemia (1), neurasthenia (2), insomnia (1), neuralgia (1), disease of the nose (1), asthma (1), hepatitis (1).

TABLE SHOWING THE SICK, INVALIDING AND DEATH
RATES AMONGST EUROPEAN OFFICIALS
IN THE COAST ZONE.

	191[illegible]	[illegible]0	[illegible]
Total number [illegible] resident.	188	192	189
Average [illegible]	[illegible]	185	168
Total number on sick list.	10[illegible]	126	129
Total number of days on sick list.	843	868	958
Average daily number on sick list.	2.30	2.37	2.72
Percentage of sick to average number resident.	1.34	2.25	2.51
Average number of days on sick list to each patient.	6.02	6.88	7.43
Average sick time to each patient.	4.63	4.52	5.27
Total number invalided.	10	6	9
Percentage of invaliding to total resident.	5.49	3.12	4.76
Total deaths.	1	1	1
Percentage of deaths to total resident.	.55	.52	.53
Percentage of deaths to average number resident.	.8[illegible]	.84	.92
[illegible] of cases of sickness contracted away from residence.	1		

(c) NATIVE OFFICIALS.

The figures for in-patients remain at the same level as last year, while there is a slight drop in the out-patients. The records for the past three years show:-

1920	In-patients	885	Out-patients	1,180
1919	"	891	"	1,540
1918	"	1,071	"	995

Four deahts occurred as against two last year and six the year before. The deaths were due to malaria (2), heart disease (1), broncho-pneumonia (1).

The invalidings totalled 15 as against 11 in 1919 and 10 in 1918. The causes were blackwater (1), tuberculosis (1), debility (4), neuritis (1), neurasthenia (1), defect of vision (2), bronchitis (2), [illegible] eurisy (1), pyrrhoea (1), and tachycardia [illegible]

[illegible] reported. [illegible]

Filariasis.- [illegible]

[illegible] there is the usual [illegible]

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES AMONGST NATIVE OFFICIALS AT THE COAST ZONE.

	1918.	1919.	1920.
Total number of officials resident.	667	683	652
Average number resident.	473	401	483
Total number on sick list.	1,071	911	885
Total number of days on sick list.	6,111	4,931	5,943
Average daily number on sick list.	16.74	13.50	16.23
Percentage of sick to average number resident.	3.53	3.36	3.36
Average number of days on sick list to each patient.	5.70	5.41	6.71
Average sick time to each resident.	9.16	7.21	9.11
Total number invalided.	10	11	15
Percentage of invaliding to total residents.	1.50	1.61	2.30
Total deaths.	6	2	4
Percentage of deaths to total residents.	.90	.29	.61
Percentage of deaths to average number resident.	1.27	.49	.82
Number of cases of sickness contracted away from residence.			

(d) GENERAL EUROPEAN POPULATION.

The figures form a correct estimate of the health of this class of the community, there being no private European practitioners in this part of the country.

The number treated shows a slight drop as compared with last year with regard to in-patients, although the steady increase from [illegible] of [illegible].

[illegible]

[illegible] developed [illegible] epidemic occurred in November [illegible] month 349 cases [illegible] Hospital.

[illegible] cases in all [illegible]

[illegible] who had recently [illegible] permanent [illegible]

[illegible] total [illegible]

[illegible] show an increase [illegible]

[illegible] 1919 [illegible] heart [illegible] pneumonia [illegible] The [illegible] and [illegible]

[illegible] the report [illegible] native [illegible]

[illegible] 9 and 15 [illegible]

[illegible] deaths registered [illegible]

[illegible] and 9 in 1918 [illegible]

(e) GENERAL NATIVE POPULATION.

The figures for 1920 show a slight drop as compared with last year, this drop occurring in the total for in-patients.

The figures for the past three years are:-

1920	In-patients	3,649	Out-patients	24,983
1919	"	4,305	"	23,714
1918	"	4,762	"	19,494

The deaths in the various hospitals are shown as under:-

	Deaths.
1920	155
1919	196
1918	175

The chief causes of mortality were cerebro-spinal meningitis 6, dysentery 10 influenza 13, malaria 64, pneumonia 32, septicaemia 6, tuberculosis 10, anchylostomiasis 6.

The following headings account for the greater number of cases:- Malaria (5162), influenza (8[illegible]), plague (133), digestive system (3561), genito-urinary (234), skin (2588), rheumatism (629), pneumonia (123), respiratory system (2805), tuberculosis (1[illegible]), [illegible] (7037), parasites (93).

The number of births and deaths is not

III.- THE KENYA AND NYANZA PROVINCES.

(a) General Remarks.

[illegible] of the country that [illegible] made with the scheme of Medical [illegible] [illegible] these centres [illegible] in the figures for the year, which [illegible] about the same total as for 1919. There [illegible] outstanding abnormal condition which might have affected the general health. A considerable outbreak of plague occurred in the North Kavirondo district.

The provision of facilities for pathological research is as pressing a need for this part of the country as in the Coast Zone.

The long hoped for European Hospital at Kisumu is at last materializing. A house has been lent by the Uganda Railway authorities and is being converted into a six bedded hospital. This will undoubtedly prove a great boon both to the European population and the medical officers who will be enabled to have patients brought into Kisumu, where they can be properly nursed and kept under observation, while the considerable time hitherto spent on travelling will be saved.

[illegible]

[illegible] and [illegible] satisfactory, [illegible] was most marked in the cases of malaria and dysentery.

The table of in-patients and deaths for the past three years is as follows:-

	In-patients.			Deaths.		
	1920.	1919.	1918.	1920.	1919.	1918.
European Officials	40	76	85	-	4	-
Native Officials	504	649	534	2	7	5
European General Population	117	86	109	3	2	2
Native General Population	3,395	3,475	4,435	145	277	628

(ii) COMMUNICABLE DISEASES.

Mosquito or Insect-borne.

Malaria.- The cases treated show a drop of nearly a thousand over the previous year. There are no figures as to the variety of the infection.

The totals of cases treated and deaths for the past three years are as follows:-

	Cases.	Deaths.
1920	4,906	12
1919	5,831	4
1918	4,632	15

Of the above numbers 83 were Europeans, as compared with 132 and 65 in the preceding years. No deaths occurred among Europeans.

Filariasis.- Four cases only came under observation. No deaths occurred among Native officials and none among the General European popu-

INFECTIOUS OR EPIDEMIC.

Cerebro-spinal-meningitis.- Eleven cases with 8 deaths were recorded, as against one case in 1919.

Dysentery.- The figures for dysentery are much lower than they have been for years. There are no statistics as to the prevalence of the amoebic and bacillary varieties.

The totals for the past three years are:-

	Cases.	Deaths.
1920	155	3
1919	584	81
1918	923	87

Three Europeans were affected. All the deaths occurred among the native general population.

Plague.- Sixty-three cases with 36 deaths came under observation, as against 57 cases with 25 deaths in 1919. The before mentioned epidemic in North Kavirondo did not result in more cases being brought for treatment and no data are available as to the numbers affected, which were very considerable. A small outbreak also occurred in an isolated area in South Kavirondo. The outbreaks are fully dealt with in the report of the Acting Chief Sanitation Officer.

Small-pox.- No cases at all came under observation during the year in this part of the country. This can be attributed to the favourable conditions as regards food supply, etc., as much as to the effects of vaccination in the past.

Figures for previous years are:-

	Cases.	Deaths.
1919	15	4
1918.	224	62

Tetanus.- No cases were recorded.

Yaws.- There is a slight increase in the numbers for 1920. The activities of the Government units in Native Reserves will undoubtedly result in a very large increase in the figures for 1921. This disease is very prevalent in the Kikuyu and South Kavirondo Reserves and its ravages are everywhere very apparent resulting in horrible disfigurements and crippling deformities and it will, unless vigorously tackled, undoubtedly have a considerable effect on the labour supply of the country.

The Medical Officer, Fort-Hall [illegible] medical men attached to the Scot[illegible] that something approach[illegible] lation in the Kikuyu [illegible] other affected by yaws [illegible] cent develop tertia[illegible] of the use of galyl [illegible] has fortunately resul[illegible] the Kikuyu for this fo[illegible] necessary facilities, a[illegible] why the incidence of th[illegible] siderably lessened even [illegible] wiped out. The short ti[illegible] fficer has been stationed [illegible] already [illegible] shows that the natives in th[illegible] will prove [illegible] eager to obtain treatment [illegible] scourge as are [illegible] Kikuyu. Pathological investigation is urgently [illegible] with regard to the various problems presented by yaws, and especially so in the direction of devising some test to differentiate between this disease and syphilis. The Medical Officer, Fort-Hall, reports that there are slight variation between yaws as found in East Africa and in Jamaica and South Africa.

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The figures for the past three years are:-

1920	538	cases
1919	515	"
1918	213	"

Influenza.- As with the other sections of the country a mild form of influenza was still prevalent. In all 956 cases [illegible] 9 deaths, two of whom were Europeans, occurred.

Venereal diseases.- The figures for this [illegible] the upward tendency which is observed all over the country. The large majority of the cases come from the Kisumu and North Kavirondo districts. Reports from the Kikuyu and Kisii areas indicate that the disease is rare in those districts.

The numbers for the past three years are:-

	1920.	1919.	1918.
Syphilis	[illegible]	298	311
Gonorrhoea	[illegible]	231	189

HELMINTHIC.

The figures recorded are:-

		1920.	1919.
Cestoda	T. solium	80	[illegible]
	T. saginata	10	1
Nematoda	A. lumbricoides	421	15
	A. duodenale	6	10
	O. vermicularis	3	-

(b) EUROPEAN OFFICIALS.

The health of European officials in the Kenya and Nyanza Provinces shows a great improvement [illegible] [illegible] [illegible] [illegible] [illegible] years. [illegible]

The totals for the past three years are:-

[illegible]	In-patients	[illegible]	out-patients	106
[illegible]	"	[illegible]6	"	100
[illegible]8	"	85		60

Malaria (36) and [illegible] of the digestive system (41) accounted for [illegible] number of cases.

[illegible] invalid[illegible] [illegible] and was due to general debility.

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES AMONGST EUROPEAN OFFICIALS IN THE KENYA AND NYANZA PROVINCES.

	1918.	1919.	1920.
Total number of officials resident.	123	131	159
Average number resident.	74	75	92
Total number on sick list.	85	76	40
Total number of days on sick list.	688	688	480
Average daily number on sick list.	1.88	1.88	1.31
Percentage of sick to average number resident.	2.54	2.50	1.42
Average number of days on sick list to each patient.	8.09	9.05	12.00
Average sick time to each resident.	5.59	5.25	3.01
number invalided.	5	6	1
Percentage of invaliding to total residents.	4.06	4.58	.63
Total deaths.	-	4	-
Percentage of deaths to total residents.	-	3.05	-
Percentage of deaths to average number resident	-	5.33	-
Number of cases of sickness contracted away from residence.	-	-	-

(c) NATIVE OFFICIALS.

The figures for native officials show a decrease in common with the other sections of the community.

The figures for the past three years are:-

1920	In-patients	504	Out-patients	498
1919	"	649	"	865
1918	"	534	"	260

The majority of the cases were classified under the following heads:- malaria 431, respiratory diseases 72, digestive system 160, injuries 98.

Two deaths only occurred as compared with 7 last year and five in 1918; these were due to malaria and septicaemia.

There were no invalidings.

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES AMONGST NATIVE OFFICIALS IN THE KENYA AND NYANZA PROVINCES.

	1918.	1919.	1920.
Total number of officials resident.	257	254	317
Average number resident.	187	196	248
Total number on sick list.	534	649	504
Total number of days on sick list.	3,704	5,362	3,248
Average daily number on sick list.	10.14	14.69	8.87
Percentage of sick to average number resident.	5.42	7.49	3.57
Average number of days on sick list to each patient.	6.93	8.26	6.44
Average time to each resident.	14.81	21.11	10.24
Invalided.	9	4	--
Percentage invalidir to total residents.	3.50	1.57	[illegible]
	5	7	[illegible]
Percentage of deaths to total residents.	1.94	2.75	[illegible] .63
Percentage of deaths to average number resident.	2.67	3.57	[illegible]
Number of cases of sickness contracted away from residence.	-	-	-

(d) GENERAL EUROPEAN POPULATION.

[illegible] for 1920 [illegible] practically the same as in the previous year, though there was an increase in [illegible].

The Medical Officer [illegible] many of the increasing number of Europeans in the Nyanza province live under insanitary conditions and in inadequate houses and points out that this probably has a good deal to do with the comparatively large sick rate.

The figures for the past three years are:-

1920	In-patients	117	out-patients	180
1919	"	86	"	223
1918	"	109	"	173

The principal causes of admission were malaria 47, influenza 38, digestive 21. Three deaths were reported, one from blackwater and two from influenza.

Births.- registered totalled 22 in 1920, as against 10 in 1919 and 14 in 1918.

Deaths.- registered were 5 in 1920, as against 4 in 1919 and 2 in 1918.

(e) GENERAL NATIVE POPULATION.

The totals of cases treated showed a slight [illegible] in-patients and a corresponding increase in out-patients.

The actual totals were:-

1920	In-patients	3,395	out-patients	[illegible]
1919	"	3,475	"	30,[illegible]
1918	"	4,436	"	30,937

The main causes of sickness were malaria 4392, dysentery 142, influenza 8[illegible], respiratory [illegible] [illegible] digestive system [illegible], injuries [illegible]

[illegible]

[illegible]

[illegible]

1918 [illegible]

The most [illegible] causes of [illegible] cerebro-spinal meningitis [illegible] [illegible] 36, pneum[illegible] [illegible] digestive system [illegible] [illegible]

[illegible]

IV.- THE DESERT ZONE.

(a) General Remarks.

This area of the country also showed a decrease in the totals of cases treated. Although malaria can be and is contracted everywhere, it cannot be claimed that this hot and arid region is pre-eminently unhealthy. Should the expected cession of Jubaland eventuate, the administration of the whole of this area will become entirely military and the medical arrangements will, therefore, be modified as outlined at the beginning of this report.

(i) GENERAL DISEASES.

The total number of cases and deaths are tabulated as follows:-

	Ill-patients.			Deaths.		
	1920.	1919.	1918.	1920.	1919.	1918.
European Officials	29	55	36	-	-	-
Native Officials	38	26	30	-	-	-
European General Population	1	2	-	-	-	-
Native General Population	1,210	2,373	1,402	24	37	56

(ii) COMMUNICABLE DISEASES.

Mosquito or Insect-borne.

Malaria.- It reported as being extremely common in [illegible]. There are no figures as to the incidence and severity of the infection.

The numbers of cases and deaths are:-

1920	Cases	2,580	Deaths	-
1919	"	1,998	"	2
1918	"	2,024	"	1

INFECTIOUS OR EPIDEMIC.

Beri-beri.- No cases were recorded during the year.

Cerebro-spinal-meningitis.- One fatal case occurred at Kismayu.

Dysentery.- The figures showed a slight increase on those of 1919, though they do not attain the same proportions as in preceding years.

The totals are:-

	Cases.	Deaths.
1920	115	3
1919	77	1
1918	152	6

Scurvy.- Only six cases with no deaths came under notice, as against 12 cases and 3 deaths in 1919 - a marked drop from the total of 1918 which amounted to 203 cases with 16 deaths.

Small-pox.- Four cases occurred at Kismayu in January and 2 at Gobwen, the last of a small epidemic.

Influenza.- Was present in this area in common with the rest of the country. A small epidemic of 63 cases with 2 deaths occurred at Kismayu.

Venereal diseases.- The figures for this class of disease show the same increase as has been commented on elsewhere.

The totals were:-

	1920.	1919.	1918.
Syphilis	93	71	28
Gonorrhoea	172	101	82

HELMINTHIC.

		1920.	1919.
Cestoda	T. solium	71	59
	T. saginata	10	3
Nematoda	A. duodenale	2	4
	A. lumbricoides	225	47
	O. vermicularis	-	-

(b) EUROPEAN OFFICIALS.

There is nothing to remark under this heading. It is satisfactory to note that no deaths and no invalidings took place during the year.

The figures are:-

1920	In-patients	29	Out-patients	70
1919	"	55	"	24
1918	"	36	"	113

The chief causes of disability were malaria 4, dysentery 3, digestive diseases 33.

In 1919 three invalidings took place and [illegible] deaths.

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES AMONGST EUROPEAN OFFICIALS IN THE DESERT ZONE.

	1918.	1919.	1920.
Total number of officials resident	21	27	40
Average number resident.	16	17	30
Total number number on sick list.	36	55	28
Total number of days on sick list.	291	180	158
Average daily number on sick list.	.79	.49	.43
Percentage of sick to average number resident.	4.93	2.88	1.43
Average number of days on sick list to each patient.	8.08	3.27	5.64
Average sick time to each resident.	13.86	6.66	5.95
Total number invalided.	1	3	-
Percentage of invaliding to total residents.	4.76	11.11	-
Total deaths.	-	-	-
Percentage of deaths to total residents.	-	-	-
Percentage of deaths to average number resident.	-	-	-
Number of cases of sickness contracted away from residence.	-	-	-

(c) NATIVE OFFICIALS.

1920	Inspections	35	[illegible]
1919	"	26	"
1918	"	36	"

The chief ailments were malaria 22 and diseases of the digestive system 11.

As in 1919, no death or [illegible] took place.

TABLE SHOWING THE SICK, INVALIDING AND DEATH RATES AMONGST NATIVE OFFICIALS IN THE DESERT ZONE.

	1918.	1919.	1920.
Total number of officials resident.	50	51	53
Average number resident.	40	41	44
Total number on sick list.	30	26	38
Total number of days on sick list.	172	119	403
Average daily number on sick list.	.47	.32	1.10
Percentage of sick to average number resident.	1.17	.78	2.50
Average number of days on sick list to each patient.	5.73	4.57	10.60
Average sick time to each resident.	3.44	2.33	7.60
Total number invalided.	1	-	-
Percentage of invaliding to total residents.	2.00		-
Total deaths.	-	-	-
Percentage of deaths to total residents.	-	-	-
Percentage of deaths to average number resident.	-	-	-
Number of cases of sickness contracted away from residence.	-	-	-

(d) GENERAL EUROPEAN POPULATION.

Only one in-patient and twelve out-patients are recorded.

Births registered number 3.

Deaths registered - nil.

(e) GENERAL NATIVE POPULATION.

The totals under treatment were:-

1920	In-patients	1,210	Out-patients	13,176
1919	"	1,373	"	6,434
1918	"	1,402	"	8,552

There were 24 deaths as against 37 in 1919 and 56 in 1918.

The causes of death were:- cerebro-spinal-meningitis (1), dysentery (3), influenza (2), pneumonia (4), septicaemia (1), secondary syphilis (1), tetanus (1), tuberculosis (4), anaemia (2), paralysis (1), pleurisy (1), liver abscess (1), stricture (1), general injury (1).

XII.- SANITATION.

REPORT BY DR.A.R.PATERSON, AS.CHIEF SANITATION OFFICER, COLONY & PROTECTORATE OF KENYA.

(i.) ADMINISTRATION.

1. The sanctioned personnel of the Sanitation Division at the commencement of the year 1920 and the personnel actually entertained were as follows:-

	Sanctioned.	Actually Entertained.
Principal Sanitation Officer	1	1
Medical Officer of Health (Senior Grade)	1	-
Medical Officers of Health	12	3
Sanitary Inspectors...	14	14
Nurses...	2	2
Assistant Surgeons ...	6	1
Sub-Assistant Surgeons	7	4
Chief Vaccinator ...	1	1
Vaccinators	56	56
Clerk, European ...	1	1
Clerks, Asiatics ...	10	10

The following additional posts were sanctioned during the year but no appointments were made except in the last instance:-

Sanitation Officers	2
Senior Medical officers of Health	3
Superintendent of Infectious Diseases Hospital	1

2. [illegible]

1 Supd. [illegible] Diseases [illegible] tal

3. Invalided during the year:-

Nil.

4. Proceeded on leave during the year:-

1 Principal Sanitation Officer.

1 Sanitary Inspector.

5. Returned from leave during the year:-

3 Sanitary Inspectors.

6. Retirements during the year:-

1 Principal Sanitation Officer.

7. Deaths during the year:-

Nil.

8. Dr.W.J.Radford, Principal Sanitation Officer, was in charge of the division till the 1st May when he proceeded on leave. Thereafter the duties were carried out by the Deputy Principal Medical Officer, Dr.C.L.Chevallier, till 30th November. From 1st to 31st December Dr.A.R.Paterson acted as Chief Sanitation Officer.

9. The designation of the Officer in charge of the Division was altered from Principal Sanitation Officer to Chief Sanitation Officer.

(ii.) LEGISLATION DURING 1920 AFFECTING THE MEDICAL DEPARTMENT & PUBLIC HEALTH.

Under the Customs Ordinance.

Prohibition of importation of shaving brushes from Japan.

Under the Infectious Diseases Ordinance.

New Rules re services gazetted 30.1.20

Cancellation of application of Rules to Kyumba 22.1.20

Rules applied to Rusinga 7.1.20

Cancellation of application 13.3.20

Cancellation of application to Mombasa 19.11.20

Under the Town Planning Ordinance.

Procedure regulations.

Under the Township Fees and Conservancy Ordinance.

Conservancy fees Kisumu.

<u>Under the Townships Ordinance.</u>

N'Gagathi declared a Township.

Kakamega " "

Nanyuki " "

Various rules were applied to different Townships but no new rules of importance were gazetted.

(iii.) PREVENTIVE MEASURES.

MOSQUITO AND INSECT-BORNE DISEASES.

MALARIA.

RECORDED CASES (GOVERNMENT HOSPITALS AND DISPENSARIES)

Year.	Cases.
[illegible]	18,2[illegible]0
[illegible]	[illegible]
191[illegible]	[illegible],194
19[illegible]	[illegible],779
192[illegible]	[illegible],19[illegible]

RECORDED DEATHS (GOVERNMENT HOSPITALS AND DISPENSARIES)

Year.	Deaths.
1916	33
1917	38
1918	42
1919	42
1920	49

The above figures represent only such cases as have been treated at Hospitals and Dispensaries. In the majority of instances the diagnosis has not been confirmed microscopically. They therefor provide no basis on which to found any conclusion either as to the incidence of the disease or its relative intensity compared with past years. It is probable that they include a very large number of cases of illness of greater or less severity due to causes other than malaria.

Speaking generally it may be said that though malaria occurs throughout the Colony and Protectorate it is only in the Coastal Belt, in certain parts of the Nyanza [illegible] bordering on the lake shore, and in the valleys of the larger rivers that it is a serious factor affecting the prosperity and development of the [illegible] [illegible].

That the disease can and to a certain extent does exist in the Highlands must not, however, be overlooked. At present it undoubtedly occasions a certain amount of disability not only among natives but among Europeans. There is no evidence that the incidence in the Highlands is increasing though with the opening up of new country and the introduction of native labour from malarious districts such increase is always possible.

ANTI-MALARIAL MEASURES.

At most stations where malaria has in the past proved to be a serious menace houses are as far as possible rendered mosquito proof and a free issue of nets is made to European and Asiatic Government Officials and in some instances to Africans. Routine bush clearing, grass cutting, ditch clearing, filling and a certain amount of oiling are carried out. That further and more extensive measures should be carried out is undoubted. In order, however, that these measures may be carried out economically and soundly, in order that money should not be expended on unnecessary works and in order that new Townships, farming areas and trade routes may not become malarious the preliminary step on which anti-malarial measures should be based has still to be taken.

No malaria mosquito survey of the country has yet been made. But little information is available as to which species prevail in different areas and none at all as to which may act as carriers under the very varying conditions of climate and altitude which prevail. For such information as we do possess we are indebted to the courtesy of the Chief Entomologist of the Agricultural Department. This [illegible] however, provided with the [illegible] the special medical [illegible] which are required. The appointment of an entomologist to undertake [illegible]

investigation of the species and habits of East African mosquitoes, ticks, lice, fleas, etc., etc., from the medical and sanitary point of view is long overdue and urgently necessary.

BLACKWATER FEVER.

Thirteen cases with four deaths are recorded as against 47 cases with 21 deaths in 1919.

TRYPANOSOMIASIS.

This disease would still appear to occur sporadically on the shore of the Kavirondo Gulf of the Victoria Nyanza. Nine cases were reported during the year and a diagnosis of Sleeping Sickness was made on clinical grounds. None of the cases were confirmed microscopically. It is hoped that it will be possible during 1921 to make a survey of the lake shore areas with regard to the prevalence of this disease.

RELAPSING FEVER.

Thirty six cases were treated in Hospital. One death occurred.

The incidence was practically limited to the Ukamba Province.

EPIDEMIC DISEASES.

PLAGUE.

NYANZA PROVINCE.

This province consists of five districts. In one of these - South Kavirondo - very limited and sporadic outbreaks of plague have occurred at intervals since 1912. Previous to that date there is no record. Two small outbreaks with a total of 17 cases occurred during 1920.

In the Kisumu District where plague has been endemic for many years a large number of cases occurred during 1920.

In Kisumu Township itself 41 cases with 28 deaths occurred. Of these cases 19 apparently acquired the infection within the Township. The remainder were imported cases.

UGANDA PROVINCE.

Kyambu District. This district consists partly of farms in European occupation and partly of Kikuyu native Reserve. The farming area marches with Nairobi, the reserve is more distant and extends on to the slopes of the Aberdare Range.

Cases of plague were first reported among native labourers on the European farms in April but investigation revealed the concurrent existence of the disease in the reserve. What the history of the disease in this district may have been is difficult to determine. It is not impossible that it may have been endemic in the hills for years and that previous outbreaks in Nairobi may, in some instances, have been due to immigration of rats from this source and not to importation by rail.

Whether this is so or not there is little doubt but that the disease is now enzootic in this area and that the human cases which occurred in Nairobi from November onwards represented the results of the spread of the epizootic into the town.

Throughout the year infected rats and consequent [illegible] occurred on the farms and in the reserve [illegible] widely separated points. The number of [illegible] among [illegible] labour on farms was small (22). The number occurring [illegible] the reserve was probably considerable.

Nairobi.

In 1918 no case of plague occurred in Nairobi. In 1919 two isolated cases occurred, one in September and one in November. In August 1920 an unknown native was found dead of the disease within the Municipal area but no further cases occurred until November, from which time till the end of the year 87 indigenous cases occurred and infected rats were found at widely separated points throughout the town.

In addition twenty one cases were admitted to the Infectious Diseases Hospital from points outwith the Township in the direction of Kyambu.

The prevention of periodical epizootics [illegible] will remain difficult or impossible so long as plague remains enzootic in the neighbouring Kikuyu district. The prevention of any considerable accompanying epidemic is on the other hand simple. Almost entirely it is a matter of housing. For the casual African labourers, Rickshaw boys, etc., who at present find employment in the Town no adequate housing exists nor has any satisfactory provision yet been made for many who are in regular employment. The same holds good to an extent for the poorer class of Asiatics.

With the provision of adequate housing for these classes, the improvement of existing housing, the removal of such grass huts as at present exist within the Township and the prohibition of the erection of further grass huts, human cases of plague will become few and far between. There is some reason to hope that considerable progress may be made in this district during the coming year.

It is of interest to note that only two cases occurred in the Old Indian Bazaar in contradistinction to the high incidence which used to prevail in that area.

This result has been achieved by gradually building the rat out of existence. Formerly the bazaar buildings had wooden floors or rubble [illegible] floated with cement. To-day they stand on 4 or [illegible] inches [illegible]

rat infestation does not occur [illegible] particularly in the large native quarter [illegible] on [illegible] inhabited by the [illegible] class [illegible]

and [illegible]

[illegible] what [illegible]

Plague in Nairobi is as far as we know associated chiefly with the black rat Rattus rattus kijabius. 372

Two nesting places particularly attract him

(1) grass roofs,
(2) enclosed spaces under wooden floors or spaces in the stonework of loose raised rubble plinths.

If therefor there are neither such roofs nor such floors or plinths rat infestation is unlikely in a dwelling house. As the black rat is no burrower in the ground but on the other hand much attracted by the natural spaces in a badly constructed plinth it should be realised that from the point of view of plague prevention a hard beaten earth floor level with the ground is much to be preferred to an improperly constructed plinth.

Pangani village was originally started by Swahilis from the coast and the type of house - a large square wattle and daube structure - is a copy of the Swahili home as built in the town of Mombasa. There is one difference, the house in Mombasa is roofed with palm leaves (Makuti). There are no palm leaves in Nairobi and resort has therefor been had either to corrugated iron or most ingeniously to old kerosine or petrol tins flattened out. To this substitution of iron for makuti and to the entire absence of a plinth is probably attributable in considerable part at least the remarkable immunity from plague which this village has enjoyed as compared with similar areas in Mombasa.

During the year 1,000 prophylactic inoculations were performed in Nairobi and the surrounding district. [illegible] were trapped with [illegible] area.

[illegible] two years plague was [illegible] The history of the [illegible] since it was first definitely diagnosed

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(2) enclosed spaces under wooden floors or spaces in the stonework of loose raised rubble plinths.

If therefor there are neither such roofs nor such floors or plinths rat infestation is unlikely in a dwelling house. As the black rat is no burrower in the ground but on the other hand much attracted by the natural spaces in a badly constructed plinth it should be realised that from the point of view of plague prevention a hard beaten earth floor level with the ground is much to be preferred to an improperly constructed plinth.

Pangani village was originally started by Swahilis from the coast and the type of house - a large square wattle and daube structure - is a copy of the Swahili house as built in the town of Mombasa. There is one difference, the house in Mombasa is roofed with palm leaves (Makuti). There are no palm leaves in Nairobi and resort has therefor been had either to corrugated iron or most ingeniously to old kerosine or petrol tins flattened out. To this substitution of iron for makuti and to the entire absence of a plinth is probably attributable in considerable part at least the remarkable immunity from plague which this village has enjoyed as compared with similar areas in Mombasa.

During the year 33,000 prophylactic inoculations were performed in Nairobi and the surrounding districts. 7,959 rats were trapped within the municipal area.

<u>Mombasa.</u>

After an absence of nearly two years plague was again present in Mombasa in 1920. The history of the disease on the Island since it was first definitely recognised.

diagnosed on August 28th 1912 is shown in the following table:-

Year.	Cases.	Inoculations performed.	Rats trapped.	Rainfal.
1912	27	-	1,724	37.58
1913	199	41,000	1,656	41.59
1914	2	-	10,044	33.27
1915	-	-	19,000	37.54
1916	-	-	11,734	42.37
1917	101	39,587	13,419	40.83
1918	3	-	7,936	35.30
1919	3	-	5,811	39.33
1920	408	43,030	4,543	55.18

MONTHLY INCIDENCE OF CASES OF PLAGUE MOMBASA. 1912 - 1920.

Year.	1912.	1913.	1914	1915	1916	1917	1918	1919	1920.
January							3		4
February		6							14
March		1							8
April		19				1			9
May		14				8			50
June		43				4			62
July		51				11			50
August		42				29			72
September	5	17				16			38
October		6				14			46
November	12					9		2	
December	10					9		1	1
Total	27	199	-	-	-	101	3	3	408

History of the outbreak.

The first case occurred in November 1919 in a house over a godown in the old town near the Customs. The godown was turned out and infected rats were found. Almost immediately afterwards infected rats were found in other parts of the island at points over a mile distant from the focus first discovered.

As is usual there was reason to believe that the above was not the first case and the subsequent course of the epidemic suggests that even at this early date foci of rat infection existed at several widely separated points on the island.

It is greatly to be regretted that advantage could not be taken of the outbreak to increase our knowledge of the epidemiology of the disease in East Africa. No Bacteriologist or Entomologist was available at Mombasa and owing to the very depleted condition of the medical staff of the Colony at the time it was not till August that even one additional Medical Officer was available to assist the Medical Officer of Health.

The total number of cases recorded was 408.

Of these 282 are returned as Bubonic.
123 " " " Pneumonic.
3 " " " Septicaemic.

The total number of deaths was 366.

The case mortality for Bubonic cases was 87%
" " " " Pneumonic " " 95%
" " " " Septicaemic " " 100%

With regard to the cases returned as "Pneumonic" plague it is probable that but few suffered from [illegible] inspiration pneumonia as of 774 contacts who were kept under observation only two developed the disease. Both were from houses where bubonic cases only had occurred, one developed bubonic plague the other pneumonia. The Medical Officer of Health is inclined to look on these pneumonias as phenomena [illegible] a guess and to regard most as having more probably been contracted in the ordinary manner through fleas.

Experience in other parts of the country would suggest that in East Africa this is probably the rule

rule and that true pneumonic plague contracted by inspiration but rarely occurs. That a notable exception to this rule apparently occurred in 1917 in Nairobi must not, however, be forgotten.

The only note worthy point with regard to race incidence is that of the 408 cases no less than 152 occurred among up-country immigrants working in Mombasa. This up-country casual labour - mostly Kikuyu and Kavirondo - like similar labour in Nairobi can find no satisfactory housing at a price which it can afford to pay. Like the rat it has to find accommodation where best it can and not unsimilar causes force both to find accommodation where they are in close association with one another.

The conditions which are arising in East Africa as a result of agricultural folk being attracted or forced into the towns by economic development are very similar to those which arose in English towns during the earlier part of the last century and in the greater seaports of the East at about the same time.

The mistakes which were then made are now realised but the prevention of their repitition is difficult; unless, however, far sighted provision can be made within the next few years Mombasa is not unlikely to become but another of the great slums of the East in equal measure as it becomes a great port and the possibility of preventing outbreaks of epidemic disease therein will become increasingly remote.

Prophylactic measures, etc.

Action with regard to individual premises consisted in their temporary vacation, deratting and disinfection and was on the whole successful, as in only two cases was there a recurrence in any house which had been dealt with.

Action with regard to rat destruction generally was singularly unsuccessful. In all, the rats trapped amounted only to 4,943, a number which can have had no effect on the course of the epidemic. Trapping is never successful in Mombasa and particularly has this been the case during outbreaks of plague. The association between rats and plague has never been fully appreciated by the inhabitants and no assistance is received from them in this matter.

The general construction of the town - old stone coral buildings on narrow streets, or wattle and daube thatched huts - is such as to render effective rat destruction extremely difficult. To prevent the immigration of infected rats from one area to another is impossible. In the part of the island, however, towards Kilindini which is largely occupied by railway employees the wholesale evacuation and destruction of a large number of insanitary grass huts was possible and the sudden cessation of cases, which by October were chiefly occurring in that area, was coincident with this measure.

The labourers who had occupied these huts were provided with temporary accommodation in the neighbourhood. In these temporary structures they are still housed. It is essential, if the railway area is not again to be seriously affected, that permanent and satisfactory housing should be erected for this labour as soon as possible. Considerable loss of life from plague has not occurred in Kilindini on two occasions i.e. in 1913 and in 1919. On both occasions also considerable expense had to be incurred by destroying insanitary houses and replacing it in kind by new temporary housing which shortly becomes as rat ridden as the old. The provision of satisfactory and permanent housing for these people has been urged in order that another repetition of the above costly expedient may not be necessary.

Inoculation.

Both the African and the Indian population of the island have great confidence in prophylactic inoculation. The total population is probably about 30,000 and during the course of the epidemic over 43,000 inoculations were performed. No figures are available as to the incidence or recovery rates among the inoculated and uninoculated, but it is of some interest to note that of the Agha Khan Kheja community which numbers about 1,500 only one member developed plague. Practically the whole community was inoculated once and the greater number twice. The member who developed plague had not been inoculated.

Spread of the disease to the mainland and elsewhere.

Five cases only occurred on the mainland in the vicinity of the island. All had acquired the infection in Mombasa and in no instance did any further cases occur.

No evidence exists that there was any extension of the disease by rats being carried either by rail, ship or dhow. Such outbreaks as occurred up-country are otherwise accounted for and the seaports of East Africa, Tanganyika and Zanzibar remained free from infection.

Origin of the outbreak.

Three possibilities present themselves (1) introduction of infected rats by rail from up-country (2) introduction of infected rats by sea either by steamers or dhows, (3) the disease may not have been absent from the island during 1918 and 1919 but may have continued present among the rodents during these years. There are, however, no data which would assist one in arriving at a definite conclusion.

Reasons for the larger number of cases in 1920 than in 1917 and 1913.

(1) Though Mombasa is to-day much better scavenged and generally very much cleaner than in 1913 it cannot be said that on the whole the people live under more hygienic conditions. The population has probably increased and this increase is largely due to the immigration of Shihiri Arabs from the coast of Hadramaut and Kavirondo Kikuyu and other natives from up-country.

Owing to the greatly increased cost of building even wattle and daube makuti roofed huts and the rise in land values this population has been housed, not by the building of new dwellings, but by the sub-division of old ones and overcrowding has thereby been considerably increased.

(2) Owing to the lack of shipping facilities the godowns and stores of Mombasa were during 1920 crowded with stocks of foods of various kinds and particularly with hides, these goods are stocked in many curious corners and many stores had not been turned out for months. There is also some reason to believe that 1920 was not only in Mombasa but in other parts of the country, a "rat year".

(3) **Meteorological conditions.**

Records of relative humidity with regard to past years are not available. The rainfal of 1920 was, however, considerably in excess of previous years being 55.1 inches as compared with an average of 40.9 for the past eight years.

General Review. The present position is as follows:-

NYANZA PROVINCE.

Plague is endemic in the Kisumu and North Kavirondo districts of the Nyanza province and accounts yearly for a very considerable mortality in these areas. Its appearance in the North Kavirondo district is comparatively recent and represents an extension from the Kisumu district.

The more northerly and eastern portions of the North Kavirondo district have not yet been affected but an extension in these directions is to be expected if no radical action is taken in the areas at present infected. Plague is also apparently endemic in certain areas of the South Kavirondo district but has not hitherto assumed an epidemic form in that locality. The reasons why it should not have done so are not evident.

On account of the endemicity of plague in the Kisumu district the township of Kisumu which is a terminus of the Uganda railway and a chief port of call for the Lake steamers is liable yearly to become infected and the transportation of infected rats by ship or rail to other areas is always to be feared. Outbreaks at Nairobi and Mombasa and at other lake ports may occur from rats being carried in this manner.

The presence of plague in the above districts is therefor not only a cause of considerable loss of life but is a menace to the whole country and to the neighbouring territory of Tanganyika.

The districts above mentioned are very thickly populated and the inhabitants are chiefly occupied in the production of grain. The only type of house is a round wattle and daube hut with a grass roof and the grain stores are of similar construction.

There is some reason to believe that the disease in these districts is only associated with a variety of the black rat (Rattus rattus kijabius) and that extensions of the disease to a new area are preceded by the invasion of that area by this rodent.

Until comparatively recently it had not been possible to post more than two Medical Officers to the Kyanda province. Of these officers one only was concerned with sanitary practice and his energies were sufficiently

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Until comparatively recently it has not been possible to post more than two Medical Officers to the Nyanza Province. Of these officers one only was concerned with sanitary practice and his energies were sufficiently

sufficiently occupied with the sanitation of the town of Kisumu and the supervision of routine measures for the prevention of the spread of the infection by rail or ship. The eradication of the disease from the Reserves or even its control therein seemed hopeless of achievement.

Within the past year, however, it has been possible to increase the number of Medical officers available for this Province to six and these officers have found that it is apparently possible to turn some part at least of the energies of the whole of the native population to rat-catching and already very large numbers have been accounted for. No payments are made, but the people are encouraged to carry out rat hunts in their villages and to bring the rats, or in certain instances the tails, to certain specified places within their locations. The Kavirondo appreciate the association of plague with rats; they also appreciate the amount of loss which they suffer in grain destroyed. The extent to which the disease can be controlled and the possibility of its ultimate extinction depend of course on the extent to which the campaign can be maintained over a period of years. The response to the propaganda it has so far been possible to carry out has been exceedingly satisfactory. In very large measure this result has been achieved by the whole hearted and energetic support which the campaign is receiving from the administration officers in charge of the districts.

In order also that the possibility of rodents other than the black rat being involved in the transmission of the disease may not be overlooked a complete survey of the small mammals and their ectoparasites is being carried out in the district - North Kavirondo - where extension of the disease has most recently taken place and if possible this survey will be extended to include the other endemic areas of East Africa.

UKAMBA PROVINCE.

In certain parts of the Kyumbu district plague would now appear to be endemic and outbreaks in Nairobi would appear to be due to this source. A trial of the methods of rat destruction which have been shown promise in Kyumbu is about to be made in such parts of the district as are native reserve and in the European farming area a certain amount of propaganda has been commenced.

A survey of the small mammals and considerable further investigation of the conditions which affect the occurrence of the disease in this area is, however, required.

KENYA PROVINCE.

The Teita district of this Province has long been suspect as an endemic area. From time to time in recent years deaths from a disease which may possibly have been plague have been reported. During the war, however, it was never possible to investigate these reports. It is hoped that it may be possible to carry out some investigations in this district during 1921.

Mombasa.

It is unlikely that the disease is endemic in the Island. It is most probably always introduced either by rail from up-country or by sea from India, the Arabian coast or the Persian Gulf. Routine measures are always in operation at Kisumu and when occasion demands also at Nairobi to prevent the carriage of infected rats from these places to the coast. Such measures can, however, never be more than partial - rats do not confine themselves to grain waggons - and the elimination of danger of infection from Nairobi and Kisumu will not be complete till the disease has been eliminated or radically checked in the districts of the Nyanza Province and the Kyumbu district of the Ukamba Province. The possibility of infection from the

the Teita district through Voi has still to be investigated.

To establish any further procedure than is already in operation to prevent importation by sea would be so expensive and restrictive of trade that it does not at present seem justifiable and this source of infection must therefore continue to be reckoned with. It remains to be considered whether the rat population of Mombasa can be kept so reduced as to render the importation of infected rats a matter of small importance. Hitherto routine rat destruction measures in Mombasa have met with practically no success. The numbers which have been trapped have not been such as could possibly have affected the rat population of the town to any appreciable degree and the structure of the town is such as to make it unlikely that either routine poisoning or trapping can be carried out so as to achieve practical results at other than an exorbitant cost.

Unfortunately these measures have never received the support of the inhabitants. In fact the possibility of an infected rat being traced to any particular premises leads not infrequently to the liberation of any rats which may have entered the traps. It would seem therefor that until such time as sanitary buildings have replaced the present efaxily unstable collection of old coral houses, till corrugated iron has replaced the makuti roofs of the huts and till the people themselves have realised the connection between the rat and plague it will be necessary to rely on trapping and more especially poisoning carried out not as a routine measure but in a very intensive manner throughout the island immediately rat or human plague may make its appearance thereon.

In any of the ports of East Africa and either we i old or very new and both diseases are of such destruction as to make [illegible] difficult of prevention.

If, however, provision can now be made to cope with the influx of population which will undoubtedly take place, gradually they will become more sanitary and plague 383
therein will gradually cease to occur in epidemic form. Yet even then, however, they will continue to be liable to infection from the reserves and it is to these latter areas that attention should be especially directed. Fortunately it is possible to do in some of these native reserves what can be done neither in India nor in England.

The up-country native populations are comparatively untrammelled by prejudice, they readily realise the immense amount of damage which the rat does, not only as a carrier of disease, but as a destroyer of food supplies and it is a comparatively easy matter to interest the whole population of a district in his destruction.

SMALL-POX.

The Nyanza province remained free from this disease throughout the year.

In Nairobi 17 cases with 3 deaths occurred. Of the 11 cases resulted from a case which occurred in an Indian passenger from Bombay which developed after arrival in this country and was concealed.

In Mombasa 11 cases were treated. Of these 3 were removed from ships arriving from Bombay.

The only serious outbreak during the year occurred on the coastal belt in the Vanga district of the Seyidie province.

Vaccination.

139,753 vaccinations are reported as having been performed during the year.

The numbers for the past five years are as follows:-

Year.	1916.	1917.	1918.	1919.	1920.
Vaccination.	277,055	297,303	428,097	261,829	139,753

A detailed statement with regard to the year 1920 is attached. Of the larger numbers mentioned therein those given for Kisumu and Kakamega are accurate as they represent the vaccination of native labourers at the Health Office and Hospital prior to their leaving the province.

Of the remaining figures most of the larger ones are probably over estimations. They represent returns made by native vaccinators and are not reliable.

The results of the vaccinations performed are largely unknown as it has not hitherto been possible to establish any system by which vaccination performed in the reserves can subsequently be inspected and verified and at Kisumu the labour vaccinated does not remain more than 24 hours before proceeding to its destination. There is, however, reason to believe that a very considerable percentage of failures occurs. The difficulties to be overcome in carrying out vaccination over a large area in the tropics are considerable. The initial production of a satisfactory lymph and the maintanence of a supply present many difficulties. The lymph may suffer considerable loss of potency during transport to and storage at the station where it is to be used and lastly the technique of the native vaccinator usually leaves much to be desired.

Hitherto the small number of Medical Officers has rendered satisfactory supervision impossible. It is doubtful whether the attempt to perform large numbers of vaccinations by unsatisfactory means is worth while. Two accidents may happen: one positive and one negative. Sore arms may occur through faulty technique, or the vaccinations may not be successful. Neither of these events popularise the procedure.

The Bacteriologist is at present giving great attention to the question of the production of a satisfactory lymph. Experiments with regard to more satisfactory methods of transport are being carried out and it is

STATEMENT SHOWING THE PLACES AND NUMBER OF VACCINATIONS PERFORMED AT EACH DURING THE YEAR 192[illegible].

Stations.	Vaccinations.			
	Number.	Failed.	Unsuccessful.	Unknown.
Nairobi	32,775	309	677	31,789
Mombasa	27,192	107	597	26,488
Kisumu	28,582	-	-	28,582
Lamu	3,415	732	1,248	1,435
Machakos... ...	1,935	-	-	1,935
Kyambu	1,077	37	26	1,014
Makindu	1,772	-	-	1,772
Kitui	838	107	648	83
Nakuru	811	1	-	810
Naivasha... ...	114	38	37	39
Eldama Ravine ...	1,529	-	60	1,469
Kacheliba ...	20	3	13	4
Fort Hall.. ...	5,449	-	-	5,449
Nyeri	151	-	3	148
Embu	18,854	-	-	18,854
Meru	2,064	588	1,474	2
[illegible]	4,793	53	63	4,677
[illegible]	1,166	114	550	502
Eldoret	81	-	70	11
Kismayu	1,044	356	621	67
[illegible]	1,117	133	409	575
Kakamega... ...	4,974	361	29	4,584
Total	139,753	2,939	6,525	130,~~598~~ 289

Certain of the above figures are compiled from returns given by Native Vaccinators. They are not necessarily accurate and probably are over estimations.

is hoped that with the additional provision of Medical officers which is now available it may be possible in 1921 to procure a higher proportion of success though the actual number of operations which may be performed will probably be considerably less than in the past.

ENTERIC. 386

20 cases occurred among Europeans. There were no deaths. Of these cases only seven occurred in Nairobi as compared with 35 in 1919.

8 cases with no deaths are recorded as occurring among the native population.

"DYSENTERY".

Cases and deaths for the past five years are as follows:-

Year	1916.	1917.	1918.	1919.	1920.
Cases	3,321	2,529	4,401	2,626	1,151
Deaths	191	169	320	274	49

There has been a notable diminution in the incidence of this disease especially in Nairobi.

CEREBRO-SPINAL MENINGITIS.

This disease only occurred sporadically throughout the ear. The number of cases and deaths recorded being respectively 60 and 33.

CHICKEN-POX.

878 cases were recorded.

MEASLES.

19 cases with no deaths were recorded.

MUMPS.

188 cases occurred.

ANTHRAX.

29 cases with 2 deaths are recorded.

INFLUENZA.

4,797 cases with 43 deaths are reported as compared with 2,278 cases and 111 deaths in 1919.

TYPHUS ?

A small number of cases of a disease clinically

Relapsing fever resembling Typhus fever occurred during the year. The incidence was confined to Europeans living [illegible] through a [illegible] has been kept in all hospitals, no cases of any fever resembling Typhus has yet been observed among the native population.

The class of European contracting the disease has not been that with which one is accustomed to associate Typhus in Europe, a fact which suggests that the louse may not be concerned in the transmission of the infection. Lice are, however, not uncommon parasites of natives in all parts of the country and will become more common as the wearing of clothes becomes more popular with the native peoples. That they are responsible for the transmission of any infection in this country has not as far been demonstrated.

ANKYLOSTOMIASIS.

60 cases and 16 deaths are recorded as compared with 212 cases and 48 deaths in 1919.

LEPROSY.

25 cases came to the notice of the Department during the year.

TETANUS.

14 cases with 5 deaths are recorded.

(iv.) GENERAL MEASURES.
SEWAGE DISPOSAL AND SCAVENGING.

No major schemes for water borne disposal of sewage are yet in operation and with the exception of a few private septic tank installations nightsoil is dealt with by the single pail system.

In Kisumu the administration is responsible for Conservancy which is [illegible] in a very satisfactory manner.

In Nairobi the Municipality is responsible. They have however very considerably increased their available

available staff and considerable improvement is becoming evident though much still remains to be done.

In Mombasa the execution of conservancy was transferred from the Administration to the Health Office during the year and very considerable improvements have been effected.

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WATER SUPPLIES.

The most pressing problems are undoubtedly the increase and treatment of the Nairobi supply and the provision of a more satisfactory supply for Kisumu.

An attempt has been made to deal with the former by means of bleaching powder but the result has not been to produce a water which can be guaranteed. Filtration and subsequent sterilization by means of a liquid chlorine apparatus will be necessary before any satisfactory result can be achieved.

HOUSING.

In the three larger towns and in most of the district stations the need for additional and improved housing is as pressing and as difficult to meet as in other countries. Particularly urgent is the question of making adequate provision for the native populations of Nairobi and Mombasa. In both towns the problem is receiving consideration, but it is not clear that a satisfactory solution has been arrived at in either case.

The housing of labour on farms and estates also presents many difficulties and though it is gradually being realised by some of the larger concerns that to reproduce the conditions of the reserves does not necessarily represent the achievement of a sanitary ideal and that to improve on these conditions is economically sound, the general conditions in many instances still leave much to be desired. The matter is now, however, receiving attention from the Labour Inspection Division of the Department of Native Affairs and considerable improvement may be expected.

PUBLIC MARKETS.

Mombasa	2
Nairobi	2
Kisumu	1

The large Mackinnon market at Mombasa is still unfortunately unfinished.

The native market at Nairobi can never have been adequate and is not now worth re-construction. Its replacement by a sanitary structure is urgently required.

SLAUGHTER HOUSES.

Mombasa	1
Nairobi	2
Kisumu	2

Considerable improvement of the conditions under which slaughtering is carried out at Mombasa has been effected, but a satisfactory slaughter house should be provided so soon as funds permit.

At Nairobi the services of a Government Veterinary Officer are now at the disposal of the Municipality. Improved accommodation is, however, required.

ANIMAL SLAUGHTERED AT NAIROBI SLAUGHTER HOUSE - 1920.

	Oxen.	Sheep.	Pigs.	Game.
	195	22,831	542	238
Condemned	13	1,263	2	-

ANIMALS SLAUGHTERED FOR NAIROBI AT M'BAGATHI SLAUGHTER HOUSE - 1920.

	Oxen.	Sheep.	Pigs.
	7,972	5	1
Condemned	59	-	1

AERATED WATER AND ICE FACTORIES.

Those receive constant supervision and the standard maintained has, on the whole, been satisfactory.

DAIRIES AND MILK SUPPLY.

The regulation of this traffic presents very great difficulty. Adulteration can be kept in check by frequent prosecutions, but improvement of methods of production is likely to be exceedingly slow. The appointment of a Veterinary Officer to Nairobi municipality as mentioned above has made some control possible and the promulgation of legislation is receiving consideration. The need at present, however, is for educational rather than legislative measures.

SHIPPING.

Bills of Health issued.

PORT.	1918		1919		1920	
	Steamers.	Dhows.	Steamers.	Dhows.	Steamers.	Dhows.
Mombasa	99	495	178	480	264	311
Lamu	5	117	1	203	-	105
Kismayu	17	155	14	104	48	140

Three steamers which arrived at Mombasa infected with small-pox were sent to the sanitary station at Zanzibar [illegible] disinfection and quarantine of deck passengers.

IV. METEOROLOGY.

The Department of Agriculture compiles statistics concerning rainfall and temperature at various places in the Colony and has furnished the figures given in the tables embodied in this report.

No other data can be given.

[illegible] MEAN ANNUAL RAINFALL AT VARIOUS POINTS IN THE DIFFERENT AREAS FOR THE YEAR 1920.

COAST AREA.

Station.	1920.
Malindi	52.53
Mombasa	55.28
Mazeras	49.41
Mackinnon Road	25.34
Voi	18.29
Taveta	Closed.

MOUNTAINOUS AREA.

Masongaleni	15.20
Makindu	44.78
Kiu (station)	22.11
Athi River	28.83
Nairobi Laboratory	47.16
Kabete Farm (near Nairobi) ...	51.75
Naivasha (station)	21.83
Nakuru	34.23
Molo	58.58
Kidama-Ravine	45.66

NYANZA AND KENYA PROVINCE.

Lumbwa (station)	32.71
Muhoroni (station)	45.92
Kisumu	41.65
Mumias (Kakamega)	87.72
Karungu	Station closed.
Kericho	66.86
Nandi	63.25
Fort-Hall	46.72
Nyeri	50.48
West Kenya	32.57

Desert Area.

Kismayu	9.79
Gosha Alexandra	24.25
Mfudu	Station closed.

V.- HOSPITALS AND DISPENSARIES.

1.- European Hospitals.

During the year, at the latter end of August, a new European Hospital at Eldoret was opened with accommodation for seven beds. The building is built of brick and is raised on piles and is situated in a good position on a hill overlooking the town and forms part of a scheme for a large general hospital. One serious fault in construction is noticeable and that is that the partitions between the walls are of match boarding only and this with the wooden floors renders the building very noisy and every sound from one room can be heard in every other. While building a hospital it was apparently forgotten that quarters for a nursing staff were necessary with the result that the two nursing sisters are housed in a one-roomed cottage in the vicinity originally intended for a sub-assistant surgeon. With this extra hospital the total number of European beds available in the country is 34. Arrangements are being completed by which a small and much needed European hospital will be opened shortly at Kisumu.

The total number of cases treated reflects the increase of the general European population as even though this is considerably higher than last year it will be noticed that there has been a drop in the number of officials admitted to the

various hospitals.

	1920.	1919.	1918.
Total number of beds	34	27	27
Total number treated	608	500	396
Total number discharged	552	452	347
Total number of deaths	22	24	33
Total number remaining	34	24	16

Of the above figures 176 were officials as against 209 in 1919 and 432 were general European population as against 291 in the preceding year. Three officials died and 19 of the civil population as against 8 and 16 in 1919.

ADMINISTRATION.- Dr. W. H. Kauntze was in charge at Nairobi until my return in April and Dr. H. H. V. Welch succeeded me as Resident Surgical Officer when I assumed the duties of Principal Medical Officer on Dr. A. D. Milne's leaving prior to retirement.

Dr. J. Pugh was in charge at Mombasa until his going on leave in August, when Dr. J. H. Thomson took over.

Lieut. Col. M. C. Wetherell was in charge at Eldoret from the date of its opening until the end of the year.

The nursing orderly at Nairobi was transferred early in the year on his own request to another department and his place was not filled up.

The numbers treated in Hospital were divided up as follows:-

	Officials.	Non-Officials.
Nairobi	135	310
Mombasa	38	104
Eldoret	3	18

Malaria was again the principal cause of admission, 104 cases having been admitted at Mombasa and 92 at Nairobi.

At Mombasa two cases of enteric were treated and at Nairobi there were six and one case of para-typhoid B. I am of opinion that investigation will prove the existence of para-typhoid in a large number of cases hitherto labelled pyrexia of uncertain origin.

Surgical operations and surgical diseases again showed a large increase. Eighty operations were performed at Nairobi of which the following were the most important:-

10 Appendicectomy.

3 Laparatomy { 2 exploratory. 1 for obstruction caused by a carcinoma of the sigmoid necessitating resection of gut.

5 Haemorrhoids.

1 Vesical calculus.

2 Inguinal hernia.

1 Amputation of breast.

1 Ectopic gestation.

1 Sarcoma of ovary.

1 Gallstones.

1 Ventre fixation of uterus.

1 Sarcoma of testicle.

1 Hydrocele.

1 [illegible]

One case of [illegible] was performed.

With the exception of the case of carcinoma of the sigmoid which was in extremis when brought to hospital, all the results were excellent.

During the year suitable accommodation was erected at Nairobi to house the whole of the nursing staff and this effected a great improvement on the system of half the nurses being lodged at a distance from the hospital with all the attendant difficulties of transport.

At Mombasa it is evident that the requirements of the town will shortly outgrow the available hospital accommodation and this will before long become a problem which will have to be tackled. The increase in the nursing staff sanctioned in the previous year allowed a more adequate number to be posted to Mombasa, but the accommodation for nursing sisters there is inadequate and results in overcrowding and general discomfort which is accentuated by the tropical climate and can only react on the quality of the work and the health of the sisters. Efforts are being made to improve the present state of affairs, and it is hoped that it will be possible to record an improvement next year.

No structural alterations to hospital or increase in their accommodation has taken place.

2.- THE CIVIL HOSPITALS AND DISPENSARIES.

The figures for 1920 show a large increase both in in- and out-patients, and though a considerable proportion of the increase may be attributed to the establishment of new centres in Native Reserves, it is undoubtedly a fact that the native is showing a keener desire to avail himself of the advantages of European methods of treatment of disease. While there has been this great increase in numbers it is satisfactory to note that there has been a considerable drop in the number and percentage of deaths.

	1920.		1919.		1918.	
	In.	Out.	In.	Out.	In.	Out.
Admissions	20,001	109,737	14,371	95,574	17,215	95,069
Deaths	854	-	1,112	-	1,706	-
Death rate per 1,000 of admissions	42.69	-	77.37	-	90.09	-

Of the civil hospitals in the three towns, Nairobi, Mombasa and Kisumu, the buildings in the case of the two latter are satisfactory as far as they go but the same cannot be said of Nairobi. The Nairobi civil hospital is a relic of the early days of the Colony and constructed as it is of wood and iron with wooden floors can only be described as most unsatisfactory. While a wood and iron building can be utilized for a hospital for Europeans it is most unsuitable for Indians and Africans whose personal habits render the provision of, at any rate, impervious floors necessary. I consider the provision of a new and up-to-date civil hospital a pressing need for

the capital. All the civil hospitals lack special provisions for the treatment of venereal diseases or midwifery, and it will not be long before the accommodation available will be inadequate for the demands made upon it.

A nursing sister has been installed during the year at the Mombasa civil hospital and the result of this has more than justified the experiment. The medical officer reports that the appointment has resulted in many more applications from Indian women for admission to hospital, that the ward-boys are receiving better training in nursing with the result that they now look intelligently after serious cases. During 1921 it is hoped to be able to post nursing sisters to more of the civil hospitals, but it is necessary to remark that only ladies with special qualifications of tact in dealing with and sympathy for natives are suited for this branch of work.

The foregoing leads to consideration of the type of nursing and the general staffing of the lower grades in the native hospitals. Up to the present there has been no general system for the training of the native attendants. When vacancies occur the first applicant is taken on and the medical officer with, in the past, no help has had himself, while performing all his other duties, to give what instruction he has been able as regards nursing and attendance on the sick. The appointment of nursing sisters will render the instruction of a higher type and these ladies, with no duties outside the hospital, will have more time to devote

to the subject and there will be a consequent increase of efficiency. I am of opinion, however, that what is required is a central institution at which natives can be trained in medical work from which as vacancies arise, they can be drafted to the various hospitals and which would form the basis of a medical college. Kisumu, with its efficient native hospital, medical officers and nurses and intelligent native population presents nearly all the requisites for such an institution and it is a great pity that the money furnished by the Red Cross Society for the purpose of starting a centre for medical instruction for natives has been handed over to a missionary society instead of being administered, as it should, by Government.

3.- LUNATIC ASYLUM.

Dr. F. L. Henderson was in medical charge of the asylum throughout the year and submits the following report:-

(1) ACCOMMODATION.

Number of beds.

	1920	1919	1918
European Male	8	8	8
European Female	4	4	0
Asiatic and African Male	40	40	40
Asiatic and African Female	12	12	12
Total	64	64	60

This is the same as the previous year.

(2) CRIMINAL LUNATICS.

There are 7 males (including 4 convicted of murder) and 2 females (both convicted of murder) criminal lunatics in the Asylum.

(3) STAFF.

European male.

Medical Officer	1	
Superintendent	1	Proceeded on leave 5-12-20
European Attendants	2	1 discharged during December, 1920.
Total	4	

On leaving 31-12-20 2 Medical Officer and Ag. Superintendent.

European female.

Matron	1	Proceeded on leave 5-12-20
Assistant Matron	1	Resigned and left February, 1920
Special Nurse	1	At periods during March and May, 1920
Temp. Asst. Matron	1	Appointed November, 1920.
Total	4	
Remaining 31-12-20	1	New Acting Matron.

Native male.

Head Attendant	1
Second Attendant	1
Male Attendants	11
Cook	1
Messenger	1
Sweeper	1
Total	16

Native female.

Female Attendants	4

(4) ASYLUM POPULATION.

Number on Register in January, 1st 1920.

	1920	1919	1918
Male	59	43	48
Female	19	20	14
Total	78	63	62

(a) Number of cases treated during 1920, 1919 & 1918.

		1920			1919			1918		
		M.	F.	Total	M.	F.	Total	M.	F.	Total
Discharged	Recovered	53	11	64	32	6	38	35	5	40
	Improved	3	3	6	9	1	10	10	2	12
Not improved		57	15	72	60	18	78	43	20	63
Died		22	1	23	22	6	28	36	7	43
Total		135	30	165	123	31	154	124	34	158

(b) Cases transferred, discharged and died.

	1920	1919	1918
Transferred	nil	nil	nil
Discharged	70	48	52
Died	23	28	43
Total	93	76	95

Total number of cases on Register 31st December, 1920 = 72.

Average daily number during 1920 = 70.

(8) ADMISSIONS.

The 87 cases admitted during 1920 were classified as under:-

Idiocy	...	-
Melancholia	...	3
Mania	...	33
Dementia	...	15
Delusional Insanity		16
Other Mental Disease		
Alcoholic Insanity		20
Total		87

AETIOLOGY. The majority of European admissions was the result of overindulgence in alcohol. 3 of these cases (males) have, after the acute symptoms had subsided, been sent to England. The remainder, after 10 days observation, have sufficiently recovered, to be discharged without being definitely certified insane. 1 case, however, of Delirium Tremens, died 5 hours after admission.

DISCHARGES. 64 cases were discharged recovered during the year. 3 cases, who had improved were discharged to England, and 3 who had improved were discharged to their friends in this Colony.

DEATHS. 22 male and 1 female deaths occurred during 1920. They were classified as under:-

	Male	Female	Total
Mania	8	1	9
Delusional Insanity	5	-	5
Dementia	3	-	3
General Paralytic Insanity	5	-	5
Pneumonia	1	-	1
Total	22	1	23

ESCAPES. One Goan escaped temporarily from a working party in the shamba. One female Kavirondo escaped temporarily by breaking through the bamboo enclosure. Disciplinary action was taken against native attendant in charge of the Goan and against the female attendant in charge of the woman.

CASUALTIES.

CASUALTIES. These were of such a trivial nature as not to require medical attention.

RESTRAINT AND SECLUSION. These are practically non-existent; all the patients are free to walk about in the Asylum grounds under supervision. The attendants spend much of their time in supervising working parties in the shamba and Asylum grounds.

One European male had to be put under restraint.

OPERATIONS. Nil.

HEALTH. There is practically no illness. The patients mostly put on weight and improve in general health after a short time in the Asylum.

PROGRESS OF ASYLUM. A new European male block to accommodate 12 patients with rooms for attendants, offices, bathrooms, lavatories, kitchen and stores, is nearly completed. Structural operations, however, have been discontinued, and the block is not opened yet.

(2) The airing court, adjoining this new block, has been laid out, spacious walks constructed, flower beds and lawns have been made, and hedges planted round the whole.

(3) The swamp surrounding this block has been filled up with stones and gravel.

(4) Many young trees have been planted.

(5) A lot has been done towards the making of drains.

(6) A new enclosure of bamboo has been constructed round the female block.

7. Half of the entire outside boundary has been enclosed with bamboo fencing, and a further supply of bamboo is expected soon to complete the whole. This is very urgent as the present state of the fence is unsafe and affords no safe guard against escapes; all these items except the first, are the work of the Asylum inmates.

OCCUPATION OF PATIENTS. All Asylum work is done by patients, including tailoring, repair of clothes, laundry, cooking, gardening, and upkeep of of Asylum grounds. European patients, when able, assist in clerical work. The shamba is entirely worked by the lunatics, and in addition the women do basket work.

BOARD OF VISITORS. Meets monthly; at each meeting all the patients and Asylum premises are inspected and patients recommended for discharge are brought before the board for examination.

FARM. All native patients who are able are employed at work on the shamba. During 1920 the following crops were produced:-

Maize	lbs	(approximately)	7000
Maize meal	"	"	500
Beans	"	"	5500
Potatoes	"	"	800

4. GOVERNMENT DENTAL SURGERY, NAIROBI.

Report by Dr. V.G.L. van Someren.

This report covers the period April to December. I returned from leave at the beginning of April, and after superintending minor alterations to the Dental Offices, resumed work on the 15th.

The amount of work continues to increase and has assumed such proportions as to make the appointment of at least one Assistant and a Mechanic a necessity.

Total Appointments Official	1283.
Officials treated	945.

Treatments.

Fillings (Plastic)	992.
" (Gold.)	14.
Extractions	344.
Crowns (Gold & Porcelain)	33.
Bridges	5.
Root fillings	175.
Scalings, done in all cases not recorded particularly.	
Dentures	35.
Repairs to Dentures	71.

The following outstations were visited, Mombasa twice; Kisumu once and Nakuru once.

I would point out that visits to outstations greatly interfere with work in Headquarters, requiring the postponement of work for three weeks to a month, besides which causing Government considerable expense in meeting the cost of work done by private practitioners for Officials during my absence from Nairobi.

11. GAOLS.

.....oooo.....

The general health of prisoners [illegible] the three principal gaols of the country has shown an improvement on last year, the figures however for pneumonia remain unsatisfactory although slightly lower than last year. Out of the total of 100 admission during the year 93 are furnished by Nairobi and are almost certainly to be accounted for by the continually overcrowded condition of the gaol. Influenza was reported in small numbers from all three prisons.

Kisumu gaol gives the lowest average number on the sick list and Mombasa had only one death, due to pulmonary tuberculosis.

The hospital accommodation at Nairobi remains inadequate and primitive, patients are still largely accommodated in tents and such operations as may be necessary have to be done in the open air. There is no dispensary or out-patient room.

No serious outbreak of infectious disease occurred during the year.

TABLE SHOWING THE SICK AND DEATH RATES AMONGST PRISONERS AT THE MOMBASA, NAIROBI and KISUMU GAOLS.

	Mombasa.		Nairobi		Kisumu.	
	1919	1920	1919	1920	1919	1920
Total number of prisoners on 1st January.	338	287	667	767	140	140
Number admitted during the year.	1228	1220	2903	3047	1188	535
Average daily number in gaol.	291	308	627	737	112	118
Total number placed on sick list.	206	285	1041	989	364	146
Total number of days on sick list.	2286	2573	15826	16374	2443	1375
Average number sick daily.	6.26	7.03	43.36	44.70	6.69	3.76
Total number of deaths.	4	1	54	23	5	3
Percentage of deaths to average daily strength.	1.37	.32	8.61	3.12	4.46	2.54

The principal causes of admission were:-

Dysentery. 42 cases and 3 deaths compared with 66 cases and 13 deaths last year.

Influenza. Nineteen cases only with 2 deaths. These figures show a considerable drop as compared with 1919 with 139 cases and 14 deaths. The cases were of a mild type.

Malaria. Shows another considerable drop with 172 cases and one death as against 357 cases and 5 deaths.

Chicken-pox. An outbreak with 46 cases occurred at Kisumu. No cases were reported from the other gaols.

Pneumonia. The figures for the past two years are:-

	Admissions.	Deaths.
1919	131	2
1920	100	17

Diarrhoea. Thirty eight admissions and no deaths show that the dietary and preparation of the food is satisfactory. In 1919 there were 131 admissions and one death.

Local Injuries. Account for 142 cases all of a trivial nature and caused from minor accidents received at work.

Mortality. Only twenty seven deaths occurred as against 43 last year. The causes of death were:-

Dysentery	3
Malaria	1
Influenza	2
Tuberculosis	1
Pneumonia	17
Other diseases	3

Of the above 23 occurred at Nairobi.

RETURNS.

TABLE I.

ADMINISTRATIVE DIVISION.

Dr. A.D.Milne, C.M.G. ... ... Principal Medical Officer.
Dr. J.L.Gilks ... ... Acting Principal Medical Officer.
Dr. C.L.Chevallier ... ... Deputy Principal Medical Officer.
Mr. H. Stanley, M.B.E. ... ... Office Superintendent.
Mr. R. Davis ... ... Clerk.
Mr. G.E.Scattergood ... ... "
Mr. J.S.Robertson, M.B.E. ... Medical Storekeeper.

MEDICAL DIVISION.

Dr. F.L.Henderson ... ... Senior Medical Officer.
Dr. G.H.R.Chell ... ... " " "
Dr. J. Pugh ... ... " " "
Dr. C.J.Wilson, M.C. ... ... " " "
Dr. V.G.L.van Someren ... ... Dental Surgeon.
Dr. H.H.V.Welch ... ... Resident Surgical Officer.
Dr. T.F.Lumb ... ... Medical Officer.
Dr. N.P.Jewell, M.C. ... ... " "
Dr. A.B.J.B.Williams ... " "
Dr. T.H.Massey, M.C. ... ... " "
Dr. P.F.Nunan ... ... " "
Dr. J.H.Thomson ... ... " "
Dr. V.M.Fisher ... ... " "
Lieut.Col.M.C.Wetherell ... ... " "
Dr. A.S.Mackie ... ... " "
Dr. F.T.Auden ... ... " "
Dr. R.C.Briscoe ... ... " "
Dr. N.B.Peacock ... ... " "
Dr. B.W.Bakers ... ... " "
Dr. C.V.Braimbridge ... ... " "
Dr. G.W.Pope ... ... " "
Dr. H.H.A.Philp ... ... District Surgeon.

MEDICAL DIVISION.- CONTD.

Mrs. L.A.Henfrey	Matron, Lunatic Asylum.
Mr. T. Brown	Warder, " "
Mr. S.J.Bosch	" " "

SANITATION DIVISION.

Dr. A.R.Paterson	Ag.Chief Sanitation Officer.
Dr. G. Walker	Medical Officer of Health.
Dr. H.S.de Boer, M.C.	" " "
Dr. E.W.N.Guinness	" " "
Mr. A.F.Dennett	Sanitary Inspector.
Mr. B.E.F.Wetkin	" "
Mr. E.E.Williams	" "
Mr. F. Strawbridge	" "
Mr. P. Cairns	" "
Mr. J.P.Cook	" "
Mr. E. Holness	" "
Mr. R.C.Mills	" "
Mr. F.R.Crighton	" "
Mr. A.P.Ling	" "
Mr. C.F.Bickell	" "
Mr. A. Bunker	" "
Mr. A.E.Taylor	" "
Mr. W.J.Edwards	Supdt.,Infectious Diseases Hospital, Nairobi.
Mr. A.E.W.Webb	Clerk.
Miss R.K.Shaw	Nurse attached to Health Office, Nairobi.

LABORATORY DIVISION.

Dr. G.Kauntze, M.B.E. ...	Senior Bacteriologist.
Dr. F.A.Clearkin	1st Asst. Bacteriologist.
Mr. F.A.Bailey	Laboratory Assistant.

F I N A N C I A L.

The sanctioned Medical Budget for the year 1920-21 was a total of £184,409, as compared with £94,362 for the preceding year.

Of the 1920-21 grand total £158,336-2-6 was expended leaving an unexpended sum of £26,073.

The saving was chiefly due to buildings for 3 Government units which balance has to be carried forward to provide for completion of buildings now in course of erection and savings on appointments in Sanitation Division provided for not being filled.

The Headings under which the vote was arranged were as follows:-

SCHEDULE XIV.- MEDICAL DEPARTMENTS.

	Estimates. £	Actual Expenditure. £ s Cts.
Administrative Division.		
Personal Emoluments	9,801	8,808-16-93
(Under this heading are included the salaries of the Principal Medical Officer, Deputy Principal Medical Officer, Chief Sanitation Officer, Office Superintendent, Medical Store-keeper, Clerical Establishment, messengers and packers.)		
Medical Division.		
Personal Emoluments	57,142	59,357-10-46
(Under this heading are included the salaries of the Senior Medical Officers, Resident Surgical Officer, Dental Surgeon, Medical Officers, Dispensers, Nurses, Superintendent, Warders, Matron and Assistant Matron, Lunatic Asylum, Assistant Surgeons, Sub-Assistant Surgeons, Hospital Assistants, Native Hospital Attendants and Lunatic Asylum Attendants.)		

Revenue.

The total amount of revenue collected as hospital fees, sales of medicines and surgical stores, bills of health, and registration fees, was as follows:-

Hospital fees and sales of medicines	... ...	£6,026-18-22
Bills of Health	... ...	£34-10-00
Registration fees	... ...	48-00-00
	Total	6,709-08-22

Last year the total revenue collected amounted to £3,936-04-00.

TABLE III.

RETURN OF STATISTICS OF POPULATION FOR THE YEAR 1920.

Kenya Colony and Protectorate.	Europeans and Whites	Africans and Others.	Asiatics.
Number of Inhabitants in 1920.	x 8,000	x 3,000,000	x 25,000
Number of Births registered in 1920.	183	- %	- %
Number of deaths registered in 1920.	88	- %	- %
Number of Immigrants during 1920.	4,705	4,259	9,935
Number of Emigrants during 1920.	(Figures not obtainable)		
Number of Inhabitants during 1919	x 8,000	x 3,000,000	x 25,000

x - Approximately as far as can be ascertained

N.B.- The last census taken was in 1911 and the number of European and Asiatic inhabitants given in this table is not, therefore, very reliable.

TABLE IV.

1.—Summary of Routine Sanitary Work done during the year in the Town of NAIROBI.

For the ~~year~~ ending 31st December, 1920. Date 1st April, 1921.

	Approximate area	Number of proclaimed open spaces.
1918	8 SQUARE MILES	Public Park Jewanjee Garden Arboretum Municipal Forest Show Ground, Parklands
1919		
1920		

2.—Population.

	Number of Natives.		Number of Europeans.		Total Approx.
	Males.	Females.	Males.	Females.	
1918	No estimate possible				21,565
1919	,, do ,,				"
1920	,, do ,,				22,700

3.—Housing.

	Number occupied by Europeans.	Number occupied by Natives and Asiatics.
Number of Houses:—		
1918	524	335 Asiatics only
1919	662	-do-
1920	695	459 -do-

Number of Huts.—

1918 1475 approximately.

1919 1400 "

1920 1483 "

7.—Slaughter-Houses.

	Total number.	Number paved and drained.	Number unpaved.
1918	2	2	nil
1919			
1920	2	2	

One more slaughter house at M'Bagathi

8.—Latrines.

	Males		Females	
	Number	Number of seats	Number	Number of seats
Number of public latrines :—				Europeans
1918	26	212	-	-
1919	24	200	-	-
1920	24	200		-
Number of new public latrines erected during the year :—				
1918	-	-		
1919	-	-		
1920	-	-		
Number of public latrines repaired during the year :—				
1918	5	40		
1919	3	24		
1920	2	-		
Number of public latrines demolished during the year :—				
1918	2	14	1	2
1919	2	12	-	-
1920	-	-	-	-

LATRINES.—*Contd.*

	1918	1919	1920
Number of private latrines :—	2223	2235	2477
Average number of pails of nightsoil daily removed	2432	2436	2634
Average number of soiled pails removed and clean pails substituted	-	-	-
Number of nightsoil men employed to clean latrines and to remove excreta ...	99	99	122
Number of cesspools ...	1	1	1
Number of cesspools cleaned ...	1	1	1
Number of new cesspools constructed during the year ...	-	-	-
Number of old cesspools abolished ...	4	-	-
Number of cesspools emptied regularly by Department ...	-	-	-

9.—REMOVAL OF REFUSE.

	1918	1919	1920
Number of dustbins	1400	1282	1593
Number of carts or carriages used to remove refuse from streets ...	12	15	27
Amount of refuse removed daily ...	24	24	90
Number of carts or carriages ready to receive refuse from yards and premises ...	22	22	26
Amount of refuse removed daily from yards and premises	40	45	10
Number of men employed for removing refuse	90	95	56

10.—MODE OF DISPOSAL OF EXCRETA, REFUSE AND OFFAL.

	Daily average number of pails of excreta.			Daily average number of cartloads of refuse.			Daily average number of cartloads of slaughter house and market offal.		
	1918	1919	1920	1918	1919	1920	1918	1919	1920
Buried or trenched ...	2436	2436	300	-	-	90	2	2	3
Burnt	-	-	-	-	-	-	1	1	2
Thrown into sea ...	-	-	-	-	-	-	-	-	-
Otherwise dealt with ...	-	-	-	-	-	-	-	-	-

11.—AVERAGE DAILY NUMBER OF CARTLOADS OF CANS, BOTTLES, BROKEN CROCKERY AND OTHER INCOMBUSTIBLE MATERIAL REMOVED FROM HOUSES HUTS AND COMPOUNDS.

	1918	1919	1920
Cart Loads	20	22	25

12.—WATER SUPPLY.

Nature of water supply	1918	1919	1920
Pipe-borne water :—			
Source (river, lake or spring).	Rivers	and	Spring
Number of linear yards	3,897	520,773	528,249
Number of stand-pipes along roads ...	-	-	-
Number of stand-pipes in compounds and houses	1241	1208	1207
Wells :—			
Public.			
Number	-	-	-
Number with pumps protected against surface water and mosquito-protected ...	-	-	-
Private :—			
Number	-	-	-
Number with pumps protected against surface water and mosquito-protected ...	-	-	-

14.—Clearance of Undergrowth and Long Grass, etc.

	1918	1919	1920
Number of square yards of weeds, grass and vegetation cut and removed ...	17,613,000	3296040	
Average frequency of clearance of rank vegetation on same area	When necessary		

15.—Excavations of Low-lying Land.

	1918	1919	1920
Number of pools and excavations ...	36	30	nil
Number of excavations filled up ...	27	98	80
Amount of low-lying and marsh land raised and drained	1½ acres	-	-
Number of pools, marshes, etc., fish-stocked	-	-	-
Number of cubic yards of material used for filling up pools and excavations ...	-	-	-
Number of persons fined for making new excavations ...	No information		
Average number of men daily employed in filling up pools, etc., ...	20	20	20

16.—Oiling.

	1918	1919	1920
Number of drains oiled	All mosquito breeding places were disinfected		
Number of pools and excavations oiled ...	206	633	700
Number of tanks and barrels oiled ...	96	1270	3000
Average number of men daily employed for oiling drains, pools, and water-tanks or barrels ...	12	12	

17.—Inspections and Prosecutions.

	1918	1919	1920
Number of inspectors employed ...	3	3	3
Number of premises inspected	7918	6700	5416
Number of houses where larvæ were found...	573	778	642
Number of notices and reminders served to remove conditions causing the breeding of larvæ	629	814	230
Number of persons fined for having mosquito larvæ on premises	5	1	-
Number of notices served to remove insanitary conditions on premises ...	936	552	534
Number of persons fined for not removing insanitary conditions after notice ...	38	-	3
Number of soda and aerated water factories inspected	5	5	7 inspected weekly

TABLE IV.

1.—Summary of Routine Sanitary Work done during the year in the Town of MOMBASA.

For the ~~year~~ ending 31st. December, 1921. Date.....191 .

	Approximate area.	Number of proclaimed open spaces.
191	Island 8 sq. miles	
191		1 Public Garden
191	Town 270 acres	

2.—Population.

	Number of Natives.		Number of Europeans.		Total Approx
	Males.	Females.	Males	Females.	
1918	14416	15267	162	39	29884
1919	12620	9549	191	90	30039
	Children 7527		Children 55		
1920	12941	7686	300	100	26018
	Children 4911		Children 80		

3.—Housing.

	Number occupied by Europeans.	Number occupied by Native and Asiatics
nber of Houses :—		
1918	110	650-700
1919	110	1006
1920	170 Approx.	1036

r of Huts :—

1918	3541
1919	3568
1920	3917

4.—Mosquito Protection of Houses.

	1918	1919	1920
Number of European houses wholly mosquito-Protected ...	-	-	-
Number of European houses with mosquito room ...	-	2	-
Number rendered during the year wholly mosquito-protected...	-	-	-
Number rendered during the year partially mosquito-protected	-	2	-

5 Erection of New Buildings during the year.

	1918	1919	1920
Number of Public buildings erected with sanction as to site, construction, and relation to other buildings...	-	-	1
Number of houses erected with sanction as to site, construction, and relation to other buildings...	29	48	53
Number of huts erected with sanction as to site, construction and relation to other buildings ...	192	110	49
Number of houses built without sanction ...	-	2	1
Number of huts built without sanction ...	-	-	-

Action taken.

	Number of prosecutions.		Number demolished.	
	Huts	Houses	Huts.	Houses.
1918	-	-	-	-
1919	-	2	1	2
1920	-	4	-	altered to plans

Nearly 150 houses & huts buildings in contravention of Plans were made to conform.

6.—Markets.

	Total Number.	Number paved and drained	Number unpaved.
1918	2	2	-
1919	3	2	1
1920	3	2	1

7.—Slaughter-Houses.

	Total number.	Number paved and drained.	Number unpaved.
1918	2	2	-
1919	1	1	-
1920	1	1	-

8.—Latrines.

	For Males		For Females	
	Number	Number of seats	Number	Number of seats
Number of public Latrines :—				
1918	41	177	-	11
1919	7	17	-	-
1920	9	33	-	-
Number of new public Latrines erected during the year :—				
1918	4	14	-	-
1919	1	5	-	-
1920	3	24	-	-
Number of public latrines repaired during the year :—				
1918	-	-	-	-
1919	-	-	-	-
1920	-	-	-	-
Number of public latrines demolished during the year :—				
1918	2	-	-	-
1919	1	-	-	-
1920	3 (sheds)	-	-	-

LATRINES.—*Contd.*

	1918	1919	1920
Number of private latrines :—			
Average number of pails of nightsoil daily removed	306	255	331
Average number of soiled pails removed and clean pails substituted	-	-	28
Number of nightsoil men employed to clean latrines and to remove excrete ...	23 by Consy. 23 by Rly.	29	56
Number of cesspools ...	Some thousands		
Number of cesspools cleaned	69	70	70
Number of new cesspools constructed during the year	7	26	85
Number of old cesspools abolished ...	15	9	41
Number of cesspools oiled regularly by Department	122	1378	1077

Note - All new sullage water cesspools and many old ones are now provided with air tight covers and do not require oilings.

REMOVAL OF REFUSE.

	1918	1919	1920
Number of dustbins ...	57	1006	1363
Number of carts at work daily to remove refuse from streets ...	15	16	23 1 motor l
Amount of refuse removed daily tons ...	17	17	56 cart l
Number of carts at work daily to remove refuse from yards and premises ...	1	1	2
Amount of refuse removed daily from yards and premises	1 ton	1 ton	4 load
Number of men employed for removing refuse	176	187	227

10.—MODE OF DISPOSAL OF EXCRETA, REFUSE AND OFFAL.

	Daily average number of pails of excreta.			Daily average number of cartloads of refuse.			Daily average number of cartloads of slaughter house and market offal.		
	1918	1919	1920	1918	1919	1920	1918	1919	1920
Buried or trenched ...	-	-	-	-	-	-	-	-	-
Burnt ...	231	-	-	-	-	42	-	-	-
Thrown into sea ...	180	180	331	-	42	-	-	230	-
Otherwise dealt with ...									

11.—AVERAGE DAILY NUMBER OF CARTLOADS OF CANS, BOTTLES, BROKEN CROCKERY AND OTHER INCOMBUSTIBLE MATERIAL REMOVED FROM HOUSES HUTS AND COMPOUNDS.

	1918	1919	1920
	4	4	4

12.—WATER SUPPLY.

Nature of water supply.	1918	1919	1920
Pipe-borne water :—			
Source (river, lake or spring).	River	River	River
Number of house yards	25,024	10,740	11,740
Number of stand-pipes along roads ...	7	20	1
Number of stand-pipes in compounds and houses	144	100	125
Wells :—			
Public.			
Number	28	28	28
Number with pumps protected against surface water and mosquito-protected ...	-	-	-
Private :—			
Number	66	83	81
Number with pumps protected against surface water and mosquito-protected ...	-	-	-

Water Supply.—*Contd.*

	1918	1919	1920
Tanks :—			
Public.			
Number underground ...	-	-	-
Number mosquito-protected and served by pumps	-	-	-
Number above ground	-	2	-
Number mosquito-protected	-	2	-
Number of 400 gallons capacity or less ...	-	-	-
Number above 400 gallons ...	-	2	-
Private :—			
Number underground	82	82	82
Number mosquito-protected	82	82	82
Number above ground ...	-	-	-
Number mosquito-protected ...	-	-	-
Number of 400 gallons capacity or less ...	-	-	-
Number above 400 gallons ...	-	-	-
Nature of tanks :—			
Wood	-	-	-
Iron ...	-	unknown	-
Concrete	82	82	82
Barrels :—			
Number ...	-	unknown	-
Number mosquito-protected	60%	Practically all	

13.—Drainage.

	Public.	Private.
Masonry drains :—		
Linear yards of masonary drains :—		
1918	-	-
1919	-	-
1920	-	300 Approx
Linear yards reconstructed during the year :—		
1918	35	-
1919	-	-
1920	-	-
Linear yards repaired during the year :—		
1918	87	-
1919	-	where necessary
1920	-	
Linear yards of new drains constructed during the year :—		
1918	190	-
1919	-	-
1920	-	1500
Earth drains or ditches cleansed :—		
Number of linear yards of ditch cleansed :—		
1918	-	-
1919	-	-
1920	where necessary	
Number of linear yards of ditches dug and graded :—		
1918	1400	-
1919	-	-
1920	1310	-
Average frequency of clearing ditches of grass :—		
1918	where necessary	
1919		
1920		

14.—Clearance of undergrowth long grass, and jungle.

	1918	1919	1920
Number of square yards of weeds, grass and vegetation cut and removed ...	1030	785½ acres	1017 acres
Average frequency of clearance of rank vegetation on same area		Frequency depends on rain	

15.—Excavations of Low-lying Land.

	1918	1919	1920
Number of pools and excavations ...	-	Unknown	-
Number of excavations filled up ...	11	31	25
Amount of low-lying and marsh land raised and drained	½ acre	-	1 acre near Sal...
Number of pools, marshes ... -stocked	17	13	-
Number of cubic yards of material used for filling up pools and excavations ...	200	171	170 Appro...
Number of persons fined for making new excavations	-	-	
Average number of men daily employed in filling up pools, etc., ...	casual	casual	casual

16.—Drains.

	1918	1919	1920
Number of drains oiled ... Soakaways	-	300 yds. 130	300 yds 130
Number of pools and excavations oiled ...	1	8	19
Number of tanks and barrels oiled ...	455	274	211
Average number of men daily employed for oiling drains, pools and water-tanks or barrels	6	6	6

17.—Inspections and Prosecutions.

	1918	1919	1920
European Sanitary Number of inspectors employed ...	2	3 average	3 average
Number of houses inspected	6482	12761	23311
Number of houses where larvæ were found...	-	180	238
Number of notices served to remove conditions causing the breeding of larvæ	408	831	320
Number of persons fined for having mosquito larvæ on premises ...	-	5	4
Number of notices served to remove insanitary conditions on premises ...	703	2171	1042
Number of persons fined for not removing insanitary conditions after notice ...	1	16	12
Number of soda and aerated water factories inspected	4	4	4

TABLE IV.

I.—Summary of Routine Sanitary Work done during the year in the Town of KISUMU (NYANZA PROV.)

For the ~~Year~~ year ending December 31st 1920. Date January, 26th 1921.

	Approximate area	Number of proclaimed open spaces
1918	19.6 square miles	1
1919	19.6 " "	
1920	19.6 " "	1

2. Population

	Number of Natives		Number of Europeans		Total Approx
	Males	Females	Males	Females	
1918	Nat.(4000 Asiatic(777	Natives (1370 Asiatics(	96	30	6273
1919	Nat.(3600 Asts(800	Natives (2000 Asiatics(300	100	50	6850
1920	Nat.(4320 Astc(960	Natives (2200 Asiatics(360	150	60	8050

3. Houses

	Number occupied by Europeans	Number occupied by Natives and Asiatics
Number of Houses		
1918	57	145
1919	57	149
1920	57	150

Number of Huts

1918	1200
1919	1220
1920	1230

7.—Slaughter-Houses.

	Total number.	Number paved and drained.	Number unpaved.
1918	2	2	nil
1919	2	2	nil
1920	2	2	nil

8.—Latrines.

	For Males.		For Females.	
	Number	Number of seats.	Number	Number of seats.
Number of public Latrines:—				
1918	16	123	-	-
1919	15	113	-	-
1920	15	101	-	-
Number of new public Latrines erected during the year:—				
1918	nil	nil	-	-
1919	nil	nil	-	-
1920	2	12	-	-
Number of public latrines repaired during the year —				
1918	2	2	-	-
1919	2	-	-	-
1920	2	24	-	-
Number of public latrines demolished during the year:—				
1918	2	2	-	-
1919	1	10	-	-
1920	2	24	-	-

LATRINES.—*Contd.*

	1918	1919	1920
Number of private latrines :—	308	315	320
Average number of pails of nightsoil daily removed	674	679	683
Average number of soiled pails removed and clean pails substituted	nil	nil	nil
Number of nights (not) employed to clean latrines and to remove excreta	45	45	45
Number of cesspits (concrete)	132	139	146
Number of cesspits (brick)	ABOVE CLEANED DAILY.		
Number of new cesspits constructed during the year	1	7	7
Number of cesspits abolished	nil	nil	1
Number of cesspits not regularly cleaned	nil	nil	nil

9.—REMOVAL OF REFUSE.

	1918	1919	1920
Number of bins	400	400	400
Number of carts used for removal of refuse from bins	4	4	4
Amount of refuse removed daily	40	40	40
Number of carts at work daily to remove refuse from yards and premises ...	10	10	10
Amount of refuse removed daily from yards and premises	36	36	36
Number of men employed for removing refuse	34	34	34

10.—MODE OF DISPOSAL OF EXCRETA, REFUSE AND OFFAL.

	Daily average number of pails of excreta.			Daily average number of cartloads of refuse.			Daily average number of cartloads of slaughter house and marine offal.		
	1918	1919	1920	1918	1919	1920	1918	1919	1920
Buried or trenched ...	674	679	679	22	22	22	1	1	1
Burnt	nil	nil	nil	9	-	9	nil	nil	nil
Thrown into sea ...	nil	nil	nil	nil	nil	nil	nil	nil	nil
Otherwise dealt with ...	nil	nil	nil	31	nil	nil	1	nil	nil

11.—AVERAGE DAILY NUMBER OF CARTLOADS OF CANS, BOTTLES, BROKEN CROCKERY AND OTHER INCOMBUSTIBLE MATERIAL REMOVED FROM HOUSES HUTS AND COMPOUNDS.

	1918	1919	1920
	3	3	3

12.—WATER SUPPLY.

Nature of water supply	1918	1919	1920
Eu-borne water :—			
Source (river, lake or spring)	Lake	lake	lake
Number of linear yards ...	12543	12,600	12,606
Number of stand-pipes along roads	11	11	11
Number of stand-pipes in compounds and houses ...	81	82	82
Wells :—			
Public.			
Number	nil	nil	nil
Number with pumps protected against surface water and mosquito-protected	nil	nil	nil
Private :—			
Number	nil	nil	nil
Number with pumps protected against surface water and mosquito-protected ...	nil	nil	nil

WATER SUPPLY.—*Contd.*

	1918	1919	1920
Tanks :—			
Public.			
Number underground ...			
Number mosquito-protected and served by pumps ...			
Number above ground ...			
Number mosquito-protected ...			
Number of 400 gallons capacity or less ...			
Number above 400 gallons ...			
Private :—			
Number underground ...	nil	nil	nil
Number mosquito-protected ...	nil	nil	nil
Number above ground ...	195	195	195
Number mosquito-protected	Practically none satisfactory		
Number of 400 gallons capacity or less ...	64	64	64
Number above 400 gallons ...	131	131	131
Nature of tanks :—			
Wood ...	nil	nil	nil
...	81	81	81
...	114	114	114
Wells			
Number ...	nil	nil	nil
Number mosquito-protected ...	nil	nil	nil

13. DRAINAGE.

	Public.	Private.
Masonary drains :—		
Linear yards of masonary drains :—		
1918 ...	6,260 ?	267 ?
1919 ...	nil	nil
1920 ...	110	nil
Linear yards reconstructed during the year :—		
1918 ...	nil	nil
1919 ...	1916	nil
1920 ...	nil	nil
Linear yards repaired during the year :—		
1918 ...	nil	nil
1919 ...	500	nil
1920 ...	70	nil
Linear yards of new drains constructed during the year :—		
1918 ...	nil	nil
1919 ...	1726	nil
1920 ...	20	nil
Open drains or ditches cleansed :—		
Number of linear yards of ditches cleansed		
1918 ...	40,000	nil
1919 ...	40,000	nil
1920 ...	40,000	nil
Number of linear yards of ditches dug and graded		
1918	nil	nil
1919	1986	nil
1920	3600	nil
Average frequency of clearing ditches of grass :—		
1918 ...	monthly	monthly
1919 ...	monthly	monthly
1920 ...	monthly	monthly

14.—Clearance of Undergrowth, Long Grass, and Jungle.

	1918	1919	1920
Number of square yards of weeds, grass and vegetation cut and removed ...	90,000	90,000	90,000
Average frequency of clearance of rank vegetation on same area	quarterly	quarterly	quarterly

15.—Excavations of Low-lying Land.

	1918	1919	1920
Number of pools and excavations	nil	nil	nil
Number of excavations filled up ...	1	nil	nil
Amount of low-lying and marsh land raised and drained	nil	nil	nil
Number of pools, marshes, etc., fish-stocked	nil	nil	nil
Number of cubic yards of material used for filling up pools and excavations ...	300	nil	nil
Number of persons hired for making new excavations ...	nil	nil	nil
Average number of men daily employed filling up pools, etc. ...	nil	nil	nil

16.—Oiling.

	1918	1919	1920
Number of drains oiled	nil	nil	2
Number of pools and excavations oiled ...	nil	nil	3
Number of tanks and barrels oiled	nil	nil	nil
Average number of men daily employed for oiling drains, pools, and water-tanks or barrels	nil	nil	2 when required

17.—Inspections and Prosecutions.

	1918	1919	1920
Number of inspectors employed ...	1	1	1
Number of houses inspected ...	14,010	9,824	3,367
Number of houses where larvæ were found ...	1	nil	1
Number of notices served to remove conditions causing the breeding of larvæ ...	nil	7	3
Number of persons fined for having mosquito larvæ on premises ...	nil	nil	1
Number of notices served to remove insanitary conditions on premises	53	183	123
Number of persons fined for not removing insanitary conditions after notice	nil	15	4
Number of soda and aerated water factories inspected ...	1	1	1

Month.	TEMPERATURE. Solar Maximum	Maximum on grass	Maximum	Minimum	Range.	Max. and Min. Mean combined.	RAINFALL. Amount in inches	Degree of Humidity.	WINDS. General Direction	Average Force	Remarks.
January		Observations	78.0	48.0	30.0	63.0	1.74	71%	Observations		
February			81.0	47.0	34.0	64.0	0.10	58%			
March			77.0	53.0	24.0	65.0	18.85	74%			
April			70.0	55.0	15.0	62.5	13.87	89%			
May			72.0	52.0	20.0	62.0	5.86	90%			
June			67.0	50.0	17.0	58.5	0.74	96%			
July			66.0	50.0	16.0	58.0	0.13	[illegible]3%			
August			70.0	49.0	21.0	59.5	0.16	[illegible]7%			
September			[illegible]	54.0	26.0	67.0	[illegible]	76%			
October			83.[illegible]	61.	22.[illegible]	72.0	2.59	76%			
November			78.0	57.0	21.0	67.5	7.20	65%			
December			71.0	49.0	22.0	60.0	7.40	81%			
Year Mean.			74.0	52.0	22.3	63.0	Total 59.75	80%			

Month.	TEMPERATURE.						RAINFALL.		WINDS.		Remarks.
	Solar Maximum.	Maximum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Max. and Min. Mean combined.	Amount in Inches	Degree of Humidity.	General Direction.	Average Force.	
January			85	65	20	75.0	0.51	84%			
February			85	66	19	75.5	1.52	66%			
March			82	66	16	74.0	4.51	80%			
April			78	63	15	70.5	8.84	76%			
May			80	63	17	71.5	6.53	82%			
June			77	62	15	69.5	2.50	84%			
July			81	63	18	72.0	1.52	79%			
August			82	62	20	72.0	1.79	75%			
September			84	62	22	73.0	1.95	82%			
October			84	62	22	73.0	2.59	85%			
November			85	64	21	74.5	6.38	77%			
December			85	63	22	74.0	3.01	58%			
Year Mean.			82	63	19	72.8	Total 41.65	77%			

No Observations

TABLE VI.

European Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

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DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
INFECTIVE DISEASES:-						
Beri-Beri.	-	-	-	-	-	
Cerebro Spinal Fever.	-	-	-	-	-	
Chicken-Pox.	-	1	-	1	-	
Cholera.	-	-	-	-	-	
Dengue.	-	-	-	-	-	
Diphtheria.	-	3	-	3	-	
Dysentery.	-	8	-	8	-	
Endocarditis-infective.	-	-	-	-	-	
Enteric.	-	4	-	4	1	
Erysipelas.	-	-	-	-	-	
Gonorrhoea.	-	1	-	1	-	
Influenza.	1	83	-	84	-	
Kala Azar.	-	-	-	-	-	
Leprosy.-(a) Nodular.	-	-	-	-	-	
(b) Anaesthetic.	-	-	-	-	-	
Malaria.-(a) Tertian.	3	122	-	125	1	
(b) Quartan.	-	-	-	-	-	
(c) Aestivo-autumnal.	1	41	-	42	1	
(d) Chronic Malaria.	-	-	-	-	-	
(e) Black-water.	-	-	-	-	-	
Measles.	-	-	-	-	-	
Malta Fever.	-	-	-	-	-	
Plague.	-	-	-	-	-	
Pneumonia.	1	6	2	7	-	
Rabies.	-	-	-	-	-	
Relapsing Fever.	-	1	-	1	-	
CARRIED FORWARD.	6	270	2	276	3	

TABLE VI.

European Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly total. Admissions.	Yearly total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	6	293	2	299	5	
GENERAL DISEASES:- (Contnd.)						
Other General Diseases.	1	21	-	22	1	
LOCAL DISEASES:-						
Diseases of the Nervous System.						
Sub-Section 1.-						
Neuritis.	-	1	-	1	-	
Meningitis.	-	-	-	-	-	
Myelitis.	-	-	-	-	-	
Hydrocephalus.	-	-	-	-	-	
Encephalitis.	-	-	-	-	-	
Abscess of Brain.	-	-	-	-	-	
Congestion of Brain.	-	-	-	-	-	
Other Diseases.	-	1	-	1	2	
Sub-Section 2.-						
Apoplexy.	-	-	-	-	-	
Paralysis.	-	-	-	-	-	
Chorea.	-	-	-	-	-	
Epilepsy.	-	-	-	-	-	
Neuralgia.	-	8	-	8	-	
Hysteria.	-	1	-	1	-	
Other Nervous Diseases.	-	8	-	8	-	
MENTAL DISEASES:-						
Sub-Section 3.-						
Idiocy.		-	-	-	-	
Mania.		-	-	-	-	
Melancholia.	-	-	-	-	-	
Dementia.	-	-	-	-	-	
Delusional Insanity.	-	1	-	1	-	
Other Mental Diseases.	1	-	-	1	-	
CARRIED FORWARD.	8	334	2	342	8	

TABLE VI.

European Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	8	383	2	391	8	
DISEASES OF THE RESPIRATORY SYSTEM.- (Contnd.)						
Broncho-Pneumonia.	-	-	-	-	-	
Abscess of Lung.	-	-	-	-	-	
Gangrene of Lung.	-	-	-	-	-	
Emphysema.	-	-	-	-	-	
Pleurisy.	-	1	-	1	1	
Empyema.	-	-	-	-	-	
Other Respiratory Diseases.	-	3	-	3	-	
DISEASES OF THE DIGESTIVE SYSTEM:-						
Stomatitis.	-	-	-	-	-	
Caries of Teeth.	-	3	-	3	-	
Glossitis.	-	-	-	-	-	
Sore Throat.	-	3	-	3	-	
Inflammation of Tonsils.	1	24	-	25	-	
Gastritis.	1	12	-	13	1	
Ulceration of Stomach.	-	-	-	-	-	
Haematemesis.	-	-	-	-	-	
Dilatation of Stomach.	-	-	-	-	-	
Stricture of Stomach.	-	-	-	-	-	
Dyspepsia.	-	2	-	2	-	
Enteritis.	-	5	-	4	1	
Appendicitis.	-	2	-	2	-	
Colitis.	-	1	-	1	-	
Ulceration of Intestines.	-	2	-	2	-	
Sprue.	-	-	-	-	-	
Hernia	-	-	-	-	-	
Diarrhoea.	-	16	-	16	-	
CARRIED FORWARD.	10	457	2	467	11	

TABLE VI.

European Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	10	457	2	467	11	
DISEASES OF THE DIGESTIVE SYSTEM:- (Contnd.)						
Constipation.	-	1	-	1	-	
Colic.	-	4	-	4	-	
Haemorrhoids.	-	6	-	6	-	
Pancreatitis.	-	-	-	-	-	
Hepatitis-Acute.	1	10	-	11	-	
Abscess.	-	1	-	1	-	
Cirrhosis.	-	-	-	-	-	
Jaundice.	-	1	-	1	-	
Peritonitis.		-	-	-	-	
Ascites.				3	-	
Other Diseases.				4	-	
DISEASES OF THE LYMPHATIC SYSTEM:-						
Splenitis.	-	-	-	-	-	
Inflamation of lymphatic gland.		1	-	1	-	
Suppuration of lymphatic gland.	-	-	-	-	-	
Lymphangitis.					-	
Elephantiasis.				-	-	
Other Diseases.			-	1	-	
DISEASES OF THE URINARY SYSTEM:-						
Acute Nephritis.	-	-	-	-	-	
Bright's Disease.	-	2	1	2	-	
Pyelitis.	-	-	-	-	-	
CARRIED FORWARD.	14	490	3	504	11	

TABLE VI.

European Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total.		Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
		Admissions.	Deaths.			
BROUGHT FORWARD.-	16	496	3	512	11	
DISEASES OF THE GENERATIVE SYSTEM:- (Contnd.)						
Female Organs:-						
Endometritis.	-	-	-	-	-	
Displacement of Uterus.	-	-	-	-	-	
Vaginitis.	-	-	-	-	-	
Amenorrhoea.	-	-	-	-	-	
Dysmenorrhoea.	-	-	-	-	-	
Menorrhagia.	-	-	-	-	-	
Leucorrhoea.	-	-	-	-	-	
Abortion.	-	-	-	-	-	
Delayed Labour.	-	-	-	-	-	
Postpartem Haemorrhage.	-	-	-	-	-	
Retained Placenta.	-	-	-	-	-	
Premature Birth.	-	-	-	-	-	
Puerperal Septicaemia.	-	-	-	-	-	
Mastitis.	-	-	-	-	-	
Abscess of Breast.	-	-	-	-	-	
Other diseases.	-	3	-	3	-	
DISEASES OF ORGANS OF LOCOMOTION:-						
Ostetis.	-	-	-	1	-	
Arthritis.	-	-	-	-	-	
Spondylitis.	-	-	-	-	-	
Bursitis.	-	1	-	1	-	
Other Diseases.	-	7	-	7	-	
CARRIED FORWARD.	16	508	3	524	11	

TABLE VI.

European Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	16	508	3	524	11	
DISEASES OF THE CONNECTIVE TISSUE:-						
Cellulitis.	-	6	-	6	-	
Abscess.	1	7	-	8	-	
Elephantiasis.	-	-	-	-	-	
Other Diseases.	-	-	-	-	-	
DISEASES OF THE SKIN:-						
Urticaria.	-	-	-	-	-	
Eczema.	-	-	-	-	-	
Boil.	-	1	-	1	-	
Carbuncle.	-	1	-	1	-	
Herpes.	-	-	-	-	-	
Psoriasis.	-	1	-	1	-	
Oriental Sore.	-	-	-	-	-	
Tinea.	-	-	-	-	-	
Scabies.	-	-	-	-	-	
Acne.	-	-	-	-	-	
Prickly Heat.	-	-	-	-	-	
Other Diseases.	-	2	-	2	-	
INJURIES:- General.	1	5	-	6	-	
Local.	3	37	-	40	-	
G.S.Wound.	1	1	-	2	-	
Surgical Operations. X	-	(15)	-	(15)	(2)	
Tumours.	-	2	-	2	-	
Malformations.	-	-	-	-	-	
Poisons.	-	-	-	-	-	
Parasitic - Animal.	-	1	-	1	-	
Protozoa.	-	-	-	-	-	
CARRIED FORWARD.	22	572	4	594	11	

TABLE VI.

Europeans Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Admissions.	Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	22	572	4	594	11	
Trematoda (flukes).	-	-	-	-	-	
Cestoda:-						
Taenia Solium.	-	1	-	1	-	
Taenia Saginata.	-	1	-	1	-	
Nematoda:-						
Ascaris.	-	-	-	-	-	
Tricocephalus Dispar.	-	-	-	-	-	
Trichina.	-	-	-	-	-	
Dracunculus.	-	-	-	-	-	
Filariasis.	-	-	-	-	-	
Strongylus.	-	-	-	-	-	
Ankylostomiasis.	-	-	-	-	-	
Oxyuris.	-	-	-	-	-	
Insecta:-						
Myiasis.	-	-	-	-	-	
Other Diseases.	-	-	-	-	-	
TOTAL.	22	574	4	596	11	

X Recorded under respective diseases.

TABLE VI.

Native Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
INFECTIVE DISEASES:-						
Beri-Beri.	-	-	-	-	-	
[illegible] Fever.	-	-	-	-	-	
Chicken-Pox.	-	2	-	2	-	
Cholera.	-	-	-	-	-	
Measles.	-	-	-	-	-	
Diphtheria.	-	-	-	-	-	
Dysentery.	-	90	1	92	-	
Endocarditis-infective.						
Enteric.	-	-	-	-	-	
Erysipelas.	-	-	-	-	-	
Gonorrhoea.	-	57		57	-	
[illegible].	1	615		[illegible]	22	
[illegible]	-	-	-			
[illegible]	-	-	-	-	-	
[illegible]	-	-	-			
(a) Tertian.	23	1150	1	1173		
(b) Quartan.	-	2	-	2		
(c) [illegible]-autumnal.	6	534	2	540		
(d) Chronic Malaria.	-	21	-	21		
(e) [illegible]-water.	-	5	-	5		
[illegible].	-	-	-			
[illegible] Fever.	-	-	-			
Plague.	-	1			-	
Pneumonia.	-	24	3	24	1	
Rabies.	-	-	-	-	-	
Relapsing Fever.	-	3		3	-	
CARRIED FORWARD.	32	2504	[illegible]	2536	33	

TABLE VI.

Native officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly total.		Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
		Admissions.	Deaths.			
BROUGHT FORWARD.-	34	2647	8	2681	35	
GENERAL DISEASES:- (Condt.)						
Rickets.	-	-	-	-	-	
Scurvy.	-	-	-	-	-	
Other General Diseases.	-	45	-	45	1	
LOCAL DISEASES:- Diseases of the Nervous System.						
Sub-Section 1.-						
Neuritis.	-	2	-	2	-	
Meningitis.	-	-	-	-	-	
Myelitis.	-	1	-	1	-	
Hydrocephalus.	-	-	-	-	-	
Encephalitis.	-	-	-	-	-	
Abscess of Brain.	-	-	-	-	-	
Congestion of Brain.	-	-	-	-	-	
Other Diseases.	-	1	-	1	-	
Sub-Section 2.-						
Apoplexy.	-	-	-	-	-	
Paralysis.	-	-	-	-	-	
Chorea.	-	-	-	-	-	
Epilepsy.	-	1	-	1	-	
Neuralgia.	-	58	-	58	-	
Hysteria.	-	-	-	-	-	
Other Nervous Diseases.	1	22	1	23	3	
MENTAL DISEASES:-						
Sub-Section 3.-						
Idiocy.	-	-	-	-	-	
Mania.	-	3	-	3	1	
Melancholia.	-	1	-	1	-	
Dementia.	-	-	-	-	-	
Delusional Insanity.	-	-	-	-	-	
Other Mental Diseases.	-	2	-	2	-	
CARRIED FORWARD.	35	2783	9	2818	40	

TABLE VI.

Native Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	35	2783	9	2818	40	
DISEASES OF THE EYE:-						
Conjunctivitis.	-	66	-	66	-	
Keratitis.	-	1	-	1	-	
Ulceration of Cornea.	-	4	-	4	-	
Iritis.	-	3	-	3	1	
Optic Neuritis.	-	-	-	-	-	
Cataract.	-	-	-	-	-	
Other eye Diseases.	-	25	-	25	1	
DISEASES OF THE EAR:-						
Inflamation.	-	6	-	6	-	
Other Diseases.	-	9	-	9	-	
DISEASES OF THE NOSE.	-	186	-	186	-	
DISEASES OF THE CIRCULATORY SYSTEM:-						
Pericarditis.	-	-	-	-	-	
Endocarditis.	-	-	-	-	-	
Valvular, Mitral.	-	-	-	-	-	
" , Aortic.	-	-	-	-	-	
" , Tricuspid.	-	-	-	-	-	
" , Pulmonary.	-	-	-	-	-	
Arterial Sclerosis.	-	-	-	-	-	
Aneurism.	-	-	-	-	-	
Other Diseases.	-	5	1	5	-	
DISEASES OF THE RESPIRATORY SYSTEM:-						
Laryngitis.	-	2	-	2	-	
Bronchitis.	1	220	-	221	3	
CARRIED FORWARD.	36	3310	10	3346	45	

TABLE VI.

Native Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	36	3310	10	3346	45	
DISEASES OF THE RESPIRATORY SYSTEM:- (Contd.)						
Broncho-Pneumonia.	1	4	1	5	-	
Abscess of Lung.	-	-	-	-	-	
Gangrene of Lung.	-	-	-	-	-	
Emphysema.	-	-	-	-	-	
Pleurisy.	1	1	-	2	-	
Empyema.	-	-	-	-	-	
Other Respiratory Diseases.	-	59	-	59	2	
DISEASES OF THE DIGESTIVE SYSTEM:-						
Stomatitis.	-	4	-	4	-	
Caries of Teeth.	-	31	-	31	1	
Glossitis.	-	-	-	-	-	
Sore Throat.	2	9	-	11	-	
Inflammation of Tonsils.	-	31	-	31	-	
Gastritis.	1	15	-	16	-	
Ulceration of Stomach.	-	1	1	1	-	
Haematemesis.	-	-	-	-	-	
Dilatation of Stomach.	-	-	-	-	-	
Stricture of Stomach.	-	-	-	-	-	
Dyspepsia.	-	46	-	46	2	
Enteritis.	-	1	-	1	-	
Appendicitis.	-	1	-	1	-	
Colitis.	-	5	-	5	-	
Ulceration of Intestines.	-	-	-	-	-	
Sprue.	-	-	-	-	-	
Hernia.	-	-	-	-	1	
Diarrhoea.	-	125	-	125	-	
CARRIED FORWARD.	41	3643	12	3684	51	

TABLE VI.

Native Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	41	3643	12	3684	51	
DISEASES OF THE DIGESTIVE SYSTEM.(Contnd.)						
Constipation.	1	39	-	40	1	
Colic.	-	52	-	52	1	
Haemorrhoids.	-	21	-	21	1	
Pancreatitis.	-	-	-	-	-	
Hepatitis Acute.-	-	9	-	9	-	
Abscess.	-	-	-	-	-	
Cirrhosis.	-	-	-	-	-	
Jaundice.	-	1	-	1	-	
Peritonitis.	-	-	-	-	-	
Ascites.	-	-	-	-	-	
Other Diseases.	-	23	-	23	-	
DISEASES OF THE LYMPHATIC SYSTEM:-						
Splenitis..	-	8	-	8	-	
Inflamation of Lymphatic gland.	-	10	-	10	-	
Suppuration of Lymphatic	-	1	-	-	1	
Lymphangitis.	-	2	-	-	-	
Elephantiasis.	-	-	-	-	-	
Other Diseases.	-	2	-	2	-	
DISEASES OF THE GENITO-URINARY SYSTEM.						
Acute Nephritis.	-	1	-	1	-	
Bright's Disease.	-	-	-	-	-	
Pyelitis.	-	-	-	-	-	
CARRIED FORWARD.-	42	3812	12	3854	55	

TABLE VI.

Native Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	42	3812	12	3854	55	
DISEASES OF THE URINARY SYSTEM:- (Contd.)						
Calculus.	-	1	-	1	-	
Renal Colic.	-	1	-	1	-	
Cystitis.	-	-	-	-	-	
Vesical Calculus.	-	-	-	-	-	
Suppression.	-	-	-	-	-	
Haematuria.	-	-	-	-	-	
Chyluria.	-	-	-	-	-	
Other Diseases.	-	2	-	2	-	
DISEASES OF THE GENERATIVE SYSTEM:-						
Male Organs:-						
Urethritis.	-	-	-	-	-	
Gleet.	-	-	-	-	-	
Stricture.	-	-	-	-	-	
Prostatitis.	-	-	-	-	-	
Soft Chancre.	-	-	-	-	-	
Condyloma.	-	-	-	-	-	
Inflammation of Scrotum.	-	-	-	-	-	
Hydrocele.	-	-	-	-	-	
Orchitis.	-	8	-	8	-	
Epididymitis.	-	-	-	-	-	
Abscess of testicles.	-	-	-	-	-	
Other Diseases.	-	-	-	-	-	
Female Organs:-						
Ovaritis.	-	-	-	-	-	
Ovarian Cyst.	-	-	-	-	-	
CARRIED FORWARD.	42	3824	12	3866	55	

TABLE VI.

Native Officials.

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RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in Hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in Hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	42	3824	12	3866	55	
DISEASES OF THE GENERATIVE SYSTEM:- (Contnd.)						
Female Organs:-						
Endometritis.	-	-	-	-	-	
Displacement of Uterus.	-	-	-	-	-	
Vaginitis.	-	-	-	-	-	
Amenorrhoea.	-	-	-	-	-	
Dysmenorrhoea.	-	-	-	-	-	
Menorrhagia.	-	-	-	-	-	
Leucorrhoea.	-	-	-	-	-	
Abortion.	-	-	-	-	-	
Delayed Labour.	-	-	-	-	-	
Postpartum Haemorrhage.	-	-	-	-	-	
Retained Placenta.	-	-	-	-	-	
Premature Birth.	-	-	-	-	-	
Puerperal Septicaemia.	-	-	-	-	-	
Mastitis.	-	-	-	-	-	
Abscess of Breast.	-	-	-	-	-	
Other Diseases.	-	-	-	-	-	
DISEASES OF ORGANS OF LOCOMOTION:-						
Osteitis.	-	-	-	-	-	
Arthritis.	1	3	-	4	-	
Spondylitis.	-	-	-	-	-	
Bursitis.	-	1	-	1	-	
Other Diseases.	-	110	-	110	2	
CARRIED FORWARD.	43	3938	12	3981	57.	

TABLE VI.

Native Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly total. Admissions.	Yearly total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	43	3938	12	3981	57	
DISEASES OF THE CONNECTIVE TISSUE:-						
Cellulitis.	-	13	-	13	1	
Abscess.	2	37	-	39	-	
Elephantiasis.	-	-	-	-	-	
Other Diseases.	-	14	-	14	1	
DISEASES OF THE SKIN:-						
Urticaria.	-	5	-	5	-	
Eczema.	-	14	-	14	-	
Boil.	1	29	-	30	-	
Carbuncle.	-	2	-	2	1	
Herpes.	-	2	-	2	-	
Psoriasis.	-	-	-	-	-	
Orificial Sore.	-	-	-	-	-	
Tinea.	-	-	-	-	-	
Scabies.	-	28	-	28	-	
Acne.	-	-	-	-	-	
Prickly Heat.	-	-	-	-	-	
Other Diseases.	-	4	-	4	-	
INJURIES:- General.	-	2	-	2	-	
Local.	1	336	-	337	9	
G.S.Wound.	-	-	-	-	-	
Surgical Operations. X	-	(2)	-	(2)	-	
Tumours.	-	-	-	-	-	
Malformations.	-	-	-	-	-	
Poisons.	-	-	-	-	-	
Parasites - Animal.	-	13	-	13	-	
Protozoa.	-	-	-	-	-	
CARRIED FORWARD.	47	4437	12	4484	69	

TABLE VI.

Native Officials.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total.		Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
		Admissions.	Deaths.			
BROUGHT FORWARD.-	47	4437	12	4484	69	
Trematoda (Flukes).	-	-	-	-	-	
Cestoda:-						
Taenia Solium.	-	-	-	-	-	
Taenia Saginata.	-	-	-	-	-	
Nematoda:-						
Ascaris.	-	-	-	-	-	
Trichocephalus Dispar.	-	1	-	1	-	
Trichina.	-	-	-	-	-	
Dracunculus.	-	-	-	-	-	
Filariasis.	-	-	-	-	-	
Strongylus.	-	-	-	-	-	
Ankylostomiasis.	-	1	-	1	-	
Oxyuris.	-	-	-	-		
Insecta:-						
Myiasis.	-	-	-	-	-	
Other Diseases.	-	-	-	-	-	
TOTAL.	47	4439	12	4486	69	

X Recorded under respective diseases.

TABLE VI.

General European Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
INFECTIVE DISEASES:-						
Beri-Beri.	-	-	-	-	-	
Cerebro-Spinal Fever.	-	-	-	-	-	
Chicken-Pox.	-	3	-	3	-	
Cholera.	-	-	-	-	-	
Dengue.	-	-	-	-	-	
Diphtheria.	-	-	-	-	-	
Dysentery.	-	14	-	14	1	
Endocarditis-infective.	-	-	-	-	-	
Enteric.	-	16	-	16	2	
Erysipelas.	-	-	-	-	-	
Gonorrhoea.	-	-	-	-	-	
Influenza.	-	63	3	63	-	
Kala Azar.	-	-	-	-	-	
Leprosy.- (a) Nodular.	-	-	-	-	-	
(b) Anaesthetic.	-	-	-	-	-	
Malaria.- (a) Tertian.	1	156	-	157	5	
(b) Quartan.	-	-	-	-	-	
(c) Aestivo-autumnal.	2	22	3	24	-	
(d) Chronic Malaria.	-	1	-	1	-	
(e) Black-Water.	-	4	2	4	-	
Measles.	-	7	-	7	-	
Malta Fever.	-	-	-	-	-	
Plague.	-	-	-	-	-	
Pneumonia.	-	10	1	10	-	
Rabies.	-	-	-	-	-	
Relapsing Fever.	-	1	-	1	-	
CARRIED FORWARD.	3	297	9	300	8	

TABLE VI.

General European Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	3	297	9	300	8	
INFECTIVE DISEASES:- (Contnd.)						
Rheumatic Fever.	-	9	-	9	1	
Septicaemia.	-	-	-	-	-	
Trypanosomiasis (Sl.Sickness.)	-	-	-	-	-	
Small-Pox.	-	-	-	-	-	
Syphilis.- (a) Primary.	-	-	-	-	-	
(b) Secondary.	-	-	-	-	-	
(c) Inherited.	-	-	-	-	-	
Tetanus.	-	-	-	-	-	
Tuberculosis.	-	10	1	10	-	
Whooping Cough.	-	7	-	7	1	
Yaws.	-	-	-	-	-	
Yellow Fever.	-	-	-	-	-	
Mumps.	-	1	-	1	-	
Anthrax.	-	-	-	-	-	
Other Infective Diseases.	-	3	-	3	-	
INTOXICATIONS:-						
Alcoholism.	-	5	-	4	1	
Others.	-	-	-	-	-	
GENERAL DISEASES:-						
Anaemia.	-	1	-	1	-	
Anaemia-Pernicious.	-	1	-	1	-	
Diabetes.	-	-	-	-	-	
Exophthalmic Goitre.	-	-	-	-	-	
Gout.	-	-	-	-	-	
Leucocythaemia.	-	-	-	-	-	
Hodgkin's disease.	-	-	-	-	-	
Erysipelas.	-	-	-	-	-	
Purpura.	-	-	-	-	-	
Rickets.	-	-	-	-	-	
Scurvy.	-	-	-	-	-	
CARRIED FORWARD.	3	332	10	335	11	

TABLE VI.

General European Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total.		Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
		Admissions.	Deaths.			
BROUGHT FORWARD.-	3	332	10	335	11	
GENERAL DISEASES:- (Contnd.)						
Other General Diseases.	2	36	2	38		
LOCAL DISEASES:- Diseases of the Nervous System.						
Sub-Section 1.-						
Neuritis.	-	3	-	3	-	
Meningitis.	-	-	-	-	-	
Myelitis.	-	-	-	-	-	
Hydrocephalus.	-	-	-	-	-	
Encephalitis.	-	-	-	-	-	
Abscess of brain.	-	-	-	-	-	
Congestion of brain.	-	-	-	-	-	
Other Diseases.	-	2	-	2	1	
Sub-Section 2.-						
Apoplexy.	-	-	-	-	-	
Paralysis.	-	1	-	1	-	
Chorea.	-	-	-	-	-	
Epilepsy.	-	3	-	3	-	
Neuralgia.	-	6	-	6	-	
Hysteria.	-	4	-	4	-	
Other Nervous Diseases.	-	16	-	16	1	
MENTAL DISEASES:-						
Sub-Section 3.-						
Idiocy.	-	-	-	-	-	
Mania.	3	2	-	5	4	
Melancholia.	-	2	-	2	-	
Dementia.	-	-	-	-	-	
Delusional Insanity.	1	3	-	4	-	
Other Mental Diseases.	1	11	1	12	2	
CARRIED FORWARD.	10	421	13	431	19	

TABLE VI.

General European Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total.		Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
		Admissions.	Deaths.			
BROUGHT FORWARD.-	10	421	13	431	19	
DISEASES OF THE EYE:-						
Conjunctivitis.	-	5	-	5	-	
Keratitis.	-	-	-	-	-	
Ulceration of Cornea.	-	-	-	-	-	
Iritis.	-	-	-	-	-	
Optic Neuritis.	-	-	-	-	-	
Cataract.	-	-	-	-	-	
Other Eye Diseases.	-	8	-	8	-	
DISEASES OF THE EAR:-						
Inflamation.	-	1	-	1	-	
Other Diseases.	-	-	-	-	-	
DISEASES OF THE NOSE.	-	4	-	4	-	
DISEASES OF THE CIRCULATORY SYSTEM:-						
Pericarditis.	-	1	-	1	-	
Endocarditis.	-	1	-	1	-	
Valvular, Mitral.	-	3	2	3	-	
" , Aortic.	-	-	-	-	-	
" , Tricuspid.	-	-	-	-	-	
" , Pulmonary.	-	-	-	-	-	
Arterial Sclerosis.	-	-	-	-	-	
Aneurism.	-	-	-	-	-	
Other Diseases.	-	5	-	5	-	
DISEASES OF THE RESPIRATORY SYSTEM:-						
Laryngitis.	-	-	-	-	-	
Bronchitis.	-	24	-	24	-	
CARRIED FORWARD.	10	473	15	483	19	

TABLE VI.

General European Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of last year.	Admissions.	Deaths.	Total cases treated.	Remaining in hospital at end of year.	REMARKS.
BROUGHT FORWARD.-	10	473	15	483	19	
DISEASES OF THE RESPIRATORY SYSTEM:- (Contd.)						
Broncho-Pneumonia.	-	6	3	6	-	
Abscess of Lung.	-	-	-	-	-	
Gangrene of Lung.	-	-	-	-	-	
Emphysema.	-	2	2	2	-	
Pleurisy.	-	4	1	4	-	
Empyema.	-	-	-	-	-	
Other Respiratory Diseases.	-	15	-	15	1	
DISEASES OF THE DIGESTIVE SYSTEM:-						
Stomatitis.	-	1	-	1	-	
Caries of Teeth.	-	7	-	7	-	
Glossitis.	-	-	-	-	-	
Sore Throat.	-	-	-	-	-	
Inflammation of Tonsils.	-	24	-	24	1	
Gastritis.	-	16	-	16	-	
Ulceration of Stomach.	-	-	-	-	-	
Haematemesis.	-	1	-	1	1	
Dilatation of Stomach.	-	-	-	-	-	
Stricture of Stomach.	-	-	-	-	-	
Dyspepsia.	-	3	-	3	1	
Enteritis.	-	8	1	8	-	
Appendicitis.	1	8	-	9	-	
Colitis.	1	2	-	3	-	
Ulceration of Intestines.	-	7	-	7	-	
Sprue.	-	-	-	-	-	
Hernia.	-	2	-	2	-	
Diarrhoea.	-	20	-	20	-	
CARRIED FORWARD.	12	599	22	611	23	

TABLE VI.

General European Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	12	599	22	611	[illegible]	
DISEASES OF THE DIGESTIVE SYSTEM:- (Contd.)						
Constipation.	-	6	-	6	-	
Colic.	-	9	-	9	-	
Haemorrhoids.	-	2	-	2	-	
Pancreatitis.	-	-	-	-	-	
Hepatitis-Acute.	-	7	-	7	-	
Abscess.	-	10	-	10	-	
Cirrhosis.	-	2	1	2	-	
Jaundice.	-	4	-	4	-	
Peritonitis.	-	1	-	1	-	
Ascites.	-	-	-	-	-	
Other Diseases.	-	4	-	4	-	
DISEASES OF THE LYMPHATIC SYSTEM:-						
Splenitis.	-	-	-	-	-	
Inflamation of lymphatic gland.	-	4	-	4	-	
Suppuration of lymphatic gland.	-	1	-	1	-	
Lymphangitis.	-	1	-	1	-	
Elephantiasis.	-	-	-	-	-	
Other Diseases.	-	-	-	-	-	
DISEASES OF THE URINARY SYSTEM:-						
Acute Nephritis.	-	1	-	1	-	
Bright's Disease.	-	2	1	2	-	
Pyelitis.	-	2	-	2	-	
CARRIED FORWARD.	12	655	24	667	23	

TABLE VI.

General European Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	12	655	24	667	23	
DISEASES OF THE URINARY SYSTEM:- (Contnd.)						
Calculus.	-	1	-	1	-	
Renal Colic.	-	1	-	1	-	
Cystitis.	-	5	-	5	-	
Vesical Calculus.	-	-	-	-	-	
Suppression.	-	-	-	-	-	
Haematuria.	-	1	-	1	-	
Chyluria.	-	-	-	-	-	
Other Diseases.	-	3	3	3	-	
DISEASES OF THE GENERATIVE SYSTEM:-						
Male Organs:-						
Urethritis.	-	2	-		-	
Gleet.	-	-	-		-	
Stricture.	-	-	-		-	
Prostatitis.	-	2	-	2	-	
Soft Chancre.	-	-	-	-	-	
Condyloma.	-	-	-	-	-	
Inflammation of Scrotum.	-	-	-	-	-	
Hydrocele.	-	1	-	1	-	
Orchitis.	-	3	-	3	1	
Epididymitis.	-	-	-	-	-	
Abscess of Testicles.	-	-	-	-	-	
Other Diseases.	-	4	-	4	-	
Female Organs:-						
Ovaritis.	-	-	-	-	-	
Ovarian Cyst.	-	-	-	-	-	
CARRIED FORWARD.	12	678	27		24	

TABLE VI.

General European Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total.		Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
		Admissions.	Deaths.			
BROUGHT FORWARD.-	12	655	24	667	23	
DISEASES OF THE URINARY SYSTEM:- (Contnd.)						
Calculus.	-	1	-	1	-	
Renal Colic.	-	1	-	1	-	
Cystitis.	-	5	-	5	-	
Vesical Calculus.	-	-	-	-	-	
Suppression.	-	-	-	-	-	
Haematuria.	-	1	-	1	-	
Chyluria.	-	-	-	-	-	
Other Diseases.	-	3	3	3	-	
DISEASES OF THE GENERATIVE SYSTEM:-						
Male Organs:-						
Urethritis.	-	2	-	2	-	
Gleet.	-	-	-	-	-	
Stricture.	-	-	-	-	-	
Prostatitis.	-	2	-	2	-	
Soft Chancre.	-	-	-	-	-	
Condyloma.	-	-	-	-	-	
Inflammation of Scrotum.	-	-	-	-	-	
Hydrocele.	-	1	-	1	-	
Orchitis.	-	3	-	3	1	
Epididymitis.	-	-	-	-	-	
Abscess of Testicles.	-	-	-	-	-	
Other Diseases.	-	4	-	4	-	
Female Organs:-						
Ovaritis.	-	-	-	-	-	
Ovarian Cyst.	-	-	-	-	-	
CARRIED FORWARD.	12	678	27	690	24	

TABLE VI.

General European Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Admissions.	Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	12	678	27	690	24	
DISEASES OF THE GENERATIVE SYSTEM:- (Contd.)						
Female Organs:-						
Endometritis.	-	1	-	1	-	
Displacement of Uterus.	-	1	-	1	-	
Vaginitis.	-	1	-	1	-	
Amenorrhoea.	-	-	-	-	-	
Dysmenorrhoea.	-	1	-	1	-	
Menorrhagia.	-	-	-	-	-	
Leucorrhoea.	-	1	-	1	-	
Abortion.	-	5	-	5	1	
Delayed Labour.	-	-	-	-	-	
Postpartum Haemorrhage.	-	1	-	1	-	
Retained Placenta	-	1	-	1	-	
Premature Birth.	-	4	-	4	-	
Puerperal Septicaemia.	-	1	-	1	-	
Mastitis.	-	2	-	2	-	
Abscess of Breast.	-	-	-	-	-	
Other Diseases.	-	23	-	23	-	
DISEASES OF ORGANS OF LOCOMOTION:-						
Osteitis.	-	1	-	1	-	
Arthritis.	-	2	-	2	-	
Spondylitis.	-	-	-	-	-	
Bursitis.	-	2	-	2	-	
Other Diseases.	1	6	-	7	-	
	-	-				
CARRIED FORWARD.	13	731	27	744	25	

DISEASES.	Remaining in hospital at end of 1919.	Yearly Returns. Admissions.	Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	13	731	27	744	25	
DISEASES OF THE CONNECTIVE TISSUE:-						
Cellulitis.	1	21	-	22	1	
Abscess.	1	-	-	1	-	
Elephantiasis.	-	-	-	-	-	
Other Diseases.	-	3	-	3	-	
DISEASES OF THE SKIN:-						
Erysipelas.	-	1	-	1	-	
Eczema.	-	3	-	3	-	
Boil.	-	9	-	9	-	
Carbuncle.	-	1	-	1	-	
Herpes.	-	-	-	-	-	
Psoriasis.	-	-	-	-	-	
Other Diseases.	-	-	-	-	-	
Tinea.	-	-	-	-	-	
Scabies.	-	2	-	2	-	
Acne.	-	-	-	-	-	
Prickly Heat.	-	-	-	-	-	
Other Diseases.	-	8	-	8	1	
INJURIES:- Severe.	-	3	1	3	-	
Local.	-	64	2	64	1	
G.S.Wound.	2	4	1	6	-	
Surgical Operations. X	(8)	(60)	(1)	(68)	(1)	
Tetanus.	-	4	-	4	1	
Malformations.	-	-	-	-	-	
Poisons.	-	-	-	-	-	
Parasites - Animal.	-	1	-	1	-	
Protozoa.	-	-	-	-	-	
CARRIED FORWARD.	17	855	31	872	29	

[illegible]

DISEASES.	Remaining in hospital at end of 1918.	Yearly totals: Admissions.	Yearly totals: Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	13	731	27	744	25	
DISEASES OF THE CONNECTIVE TISSUE:-						
Cellulitis.	1	21	-	22	1	
Abscess.	1	-	-	1	-	
Elephantiasis.	-	-	-	-	-	
Other Diseases.	-	3	-	3	-	
DISEASES OF THE SKIN:-						
Urticaria.	-	1	-	1	-	
Eczema.	-	3	-	3	-	
Boil.	-	9	-	9	-	
Chilblains.	-	1	-	1	-	
Herpes.	-	-	-	-	-	
Psoriasis.	-	-	-	-	-	
Oriental Sore.	-	-	-	-	-	
Tinea.	-	-	-	-	-	
Scabies.	-	2	-	2	-	
Acne.	-	-	-	-	-	
Prickly Heat.	-	-	-	-	-	
Other Diseases.	-	8	-	8	1	
INJURIES:- General.	-	3	1	3	-	
Local.	-	64	2	64	1	
G.S.Wound.	2	4	1	6	-	
Surgical Operations. X	(8)	(60)	(1)	(68)	(1)	
Tumours.	-	4	-	4	1	
Malformations.	-	-	-	-	-	
Poisons.	-	-	-	-	-	
Parasites - Animal.	-	1	-	1	-	
Protozoa.	-	-	-	-	-	
CARRIED FORWARD.	17	855	31	872	29	

TABLE VI.

Central European Population.

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RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total		Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
		Admissions.	Deaths.			
BROUGHT FORWARD.-	17	855	31	872	29	
Trematoda (Flukes).	-	-	-	-	-	
Cestoda:-						
Taenia Solium.	-	3	-	3	-	
Taenia Saginata.	-	-	-	-	-	
Nematoda:-						
Ascaris.	-	-	-	-	-	
Trichocephalus Dispar.	-	-	-	-	-	
Trichina.	-	-	-	-	-	
Dracunculus.	-	-	-	-	-	
Filariasis.	-	-	-	-	-	
Strongylus.	-	-	-	-	-	
Ankylostomiasis.	-	-	-	-	-	
Oxyuris.	-	-	-	-	-	
Insecta:-						
Myiasis.	-	-	-	-	-	
Other Diseases.	-	-	-	-	-	
TOTAL.	17	858	31	875	29	

X Recorded under respective diseases.

TABLE VI.

General Native Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
NATIVE DISEASES:-						
Beri-Beri.	41	58	2	99	6	
Cerebro-Spinal Fever.	1	51	33	52	1	
Chicken-Pox.	6	656	-	662	22	
Ulcers.	-	-	-	-	-	
Leprosy.	-	-	-	-	-	
Diphtheria.	-	-	-	-	-	
Dysentery.	13	398	38	411	9	
Endocarditis infective.	-	-	-	-	-	
Enteric.	-	8	-	8	2	
Filariasis.	-	3	-	3	-	
Gonorrhoea.	15	279	-	294	18	
Influenza.	20	1337	40	1367	39	
Kala-Azar.	-	-	-	-	-	
Leprosy.- (a) Nodular.	6	13	2	19	5	
(b) Anaesthetic.	2	4	-	6	2	
Malaria.- (a) Tertian.	29	1727	32	1756	17	
(b) Quartan.	-	17	3	17	1	
(c) Aestivo-autumnal.	18	1406	5	1424	22	
(d) Chronic Malaria.	2	48	3	50	-	
(e) Black-Water.	-	3	2	3	-	
Measles.	-	8	-	8	-	
Malta Fever.	-	-	-	-	-	
Plague.	41	232	130	273	5	
Pneumonia.	-	1012	280	1012	38	
Rabies.	-	-	-	-	-	
Relapsing Fever.	1	30	1	31	2	
CARRIED FORWARD.	205	7290	571	7495	189	

TABLE VI.

General Native Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in Hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in Hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	205	7290	571	7495	189	
INFECTIVE DISEASES:- (Contnd.)						
Rheumatic Fever.	7	259	3	266	5	
Septicaemia.	-	11	10	11	-	
Trypanosomiasis (sl.sickness).	1	10	4	11	4	
Small-Pox.	18	39	5	57	1	
Syphilis.- (a) Primary.	17	335	-	352	16	
(b) Secondary.	7	202	7	209	15	
(c) Inherited.	5	11	2	16	1	
Tetanus.	1	11	5	12	-	
Tuberculosis.	5	92	41	97	5	
Whooping Cough.	-	-	-	-	-	
Yaws.	12	199	1	211	26	
Yellow Fever.	-	-	-	-	-	
Mumps.	4	140	-	144	4	
Anthrax.	4	29	2	33	4	
Other Infective Diseases.	4	1	-	5	-	
INTOXICATIONS:-						
Alcoholism.	-	-	-	-	-	
Morphinism.	-	-	-	-	-	
Other [illegible]	-	-	-	-	-	
[illegible] DISEASES:-						
Anaemia.	3	53	7	56	2	
Anaemia, pernicious.	-	1	1	1	-	
Diabetes.	-	2	-	2	-	
Exophthalmic Goitre.	-	-	-	-	-	
Gout.	-	-	-	-	-	
Leucocythaemia.	-	-	-	-	-	
Hodgkin's Disease.	-	-	-	-	-	
Myxoedema.	-	-	-	-	-	
Purpura.	-	-	-	-	-	
Rickets.	-	-	-	-	-	
Scurvy.	-	6		6	1	
CARRIED FORWARD.	293	8691	659	8984	273	

TABLE VI.

General Native Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in Hospital at end of 1919.	Yearly Total,		Total cases treated.	Remaining in Hospital at end of 1920.	REMARKS.
		Admissions.	Deaths.			
BROUGHT FORWARD:-	293	8691	659	8984	273	
GENERAL DISEASES:- (Contnd.)						
Other General Diseases.	3	136	5	139	6	
LOCAL DISEASES:-						
Diseases of the Nervous System.						
Sub-Section 1.-						
Neuritis.	-	9	-	9	-	
Meningitis.	-	3	1	3	-	
Myelitis.	-	1	1	1	-	
Hydrocephalus.	-	-	-	-	-	
Encephalitis.	-	-	-	-	-	
Abscess of Brain.	-	1	1	1	-	
Congestion of Brain.	-	-	-	-	-	
Other Diseases.	-	10	-	10	-	
Sub-Section 2.-						
Apoplexy.	-	5	4	5	-	
Paralysis.	5	19	2	24	6	
Chorea.	-	1	1	1	-	
Epilepsy.	-	13	-	13	1	
Neuralgia.	-	70	-	70	1	
Hysteria.	-	3	-	3	-	
Other Nervous Diseases.	1	29	1	30	4	
MENTAL DISEASES:-						
Sub-Section 3.-						
Idiocy.	2	-	-	2	2	
Mania.	39	44	9	83	33	
Melancholia.	1	4	-	5	1	
Dementia.	18	16	3	34	15	
Delusional Insanity.	8	17	5	25	9	
Other Mental Diseases.	6	20	5	26	7	
CARRIED FORWARD.	376	9092	697	9468	358	

TABLE VI.

General Native Population.

RETURN OF DISEASES [illegible] (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD:-	376	9092	697	9468	358	
DISEASES OF THE EYE:-						
Conjunctivitis.	3	138	-	141	6	
Keratitis.	-	10	-	10	-	
Ulceration of Cornea.	1	16	-	17	1	
Iritis.	-	9	-	9	-	
Optic Neuritis.	-	-	-	-	-	
Cataract.	-	3	-	3	1	
Other Eye Diseases.	1	34	-	35	2	
DISEASES OF EAR:-						
Inflammation.	-	20	-	20	-	
Other Diseases.	-	8	1	8	-	
DISEASES OF BONES.	-	26	-	26	-	
DISEASES OF CIRCULATORY SYSTEM:-						
Pericarditis.	-	1	1	1	-	
Endocarditis.	-	-	-	-	-	
Valvular, Mitral.	1	2	-	3	1	
" , Aortic.	-	2	-	2	-	
" , Tricuspid.	-	-	-	-	-	
" , Pulmonary.	-	-	-	-	-	
[illegible]osis.	-	-	-	-	-	
[illegible]	-	-	-	-	-	
[illegible]	-	14	5	14	1	
DISEASES OF THE RESPIRATORY SYSTEM.						
Laryngitis.	1	8	1	9	-	
[illegible]	24	748	3	772	21	
CARRIED FORWARD.	407	10131	708	10538	391	

TABLE VI.

General Native Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	407	10131	708	10538	391	
DISEASES OF THE RESPIRATORY SYSTEM:- (Contd.)						
Broncho-Pneumonia.	2	66	14	68	1	
Abscess of Lung.	-	-	-	-	-	
Gangrene of Lung.	-	1	1	1	-	
Emphysema.	1	-	-	1	-	
Pleurisy.	2	26	3	28	3	
Empyema.	1	2	2	3	1	
Other Respiratory Diseases.	1	48	1	49	1	
DISEASES OF THE DIGESTIVE SYSTEM:-						
Stomatitis.	-	16	-	16	-	
Caries of Teeth.	1	4	-	5	-	
Glossitis.	-	-	-	-	-	
Sore Throat.		25	-	25	-	
Inflammation of Tonsils.	-	39	-	39	-	
Gastritis.	-	14	-	14	-	
Ulceration of Stomach.	-	1	-	1	-	
Haematemesis.	1	2	-	3	-	
Dilatation of Stomach.	-	-	-	-	-	
Stricture of Stomach.						
Dyspepsia.		22	-	22	-	
Enteritis.	-	11	1	11	-	
Appendicitis.	-	2	1	2	-	
Colitis.	-	3	1	3	-	
Ulceration of Intestines.	-	-	-	-	-	
Sprue.	1	1	-	2	-	
Hernia.	-	17	2	17	2	
Diarrhoea.	8	479	14	487	9	
CARRIED FORWARD.	425	10910	748	11335	408	

TABLE VI.-

General Native Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in Hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in Hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	425	10910	748	11335	408	
DISEASES OF THE DIGESTIVE SYSTEM:- (Contnd)						
Constipation.	1	46	-	47	-	
Colic.	1	108	-	109	1	
Haemorrhoids.	-	7	-	7	-	
Pancreatitis.	-	-	-	-	-	
Hepatitis-Acute.	2	18	-	20	1	
Abscess.	-	14	3	14	1	
Cirrhosis.	-	7	3	7	1	
Jaundice.	-	10	1	10	-	
Peritonitis.	-	3	2	3	-	
Ascites.	1	9	3	10	-	
Other Diseases.	2	37	5	39	-	
DISEASES OF THE LYMPHATIC SYSTEM:-						
Splenitis.	-	19	-	19	1	
Inflamation of lymphatic gland.	2	106	1	108	16	
Suppuration of lymphatic gland.	2	31	-	33	-	
Lymphangitis.	-	-	-	-	-	
Elephantiasis.	-	5	1	5	-	
Other Diseases.	1	3	-	4	-	
DISEASES OF THE URINARY SYSTEM:-						
Acute Nephritis.	-	15	-	15	-	
Bright's Disease.	-	12	6	12	1	
Pyelitis.	-	-	-	-	-	
CARRIED FORWARD.	437	11360	773	11797	430	

TABLE VI.

General Native Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in Hospital at end of 1919.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total cases treated.	Remaining in Hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	457	11360	773	11797	430	
DISEASES OF THE URINARY SYSTEM:- (Contnd.)						
Calculus.	-	6	-	6	-	
Renal Colic.	-	2	-	2	-	
Cystitis.	-	2	-	2	-	
Vesical Calculus.	-	-	-	-	-	
Suppression.	-	-	-	-	-	
Haematuria.	-	1	-	1	-	
Glycuria.	-	-	-	-	-	
Other Diseases.	-	14	1	14	3	
DISEASES OF THE GENERATIVE SYSTEM:-						
Male Organs:-						
Urethritis.	-	1	-	1	-	
Gleet.	-	3	-	3	-	
Stricture.	-	22	1	22	1	
Prostatitis.	9	-	-	9	-	
Soft Chancre.	-	79	-	79	3	
Condyloma.	-	6	-	6	1	
Inflammation of Scrotum.	-	5	-	5	-	
Hydrocele.	-	9	-	9	-	
Orchitis.	3	56	-	59	3	
Epididymitis.	1	5	-	6	-	
Abscess of Testicles.	-	-	-	-	-	
Other Diseases.	1	34	3	35	1	
Female Organs:-						
Ovaritis.	-	1	-	1	-	
Ovarian Cyst.	-	-	-	-	-	
CARRIED FORWARD.	451	11606	778	12057	442	

TABLE VI.

General Native Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Remaining in Hospital at end of 1919.	Weekly Total. Admissions.	Deaths.	Total cases treated.	Remaining in Hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	451	11606	778	12057	442	
DISEASES OF THE GENERATIVE SYSTEM:- (Contd.)						
Female Organs:-						
Endometritis.	-	1	-	1	-	
Displacement of Uterus.	-	-	-	-	-	
Vaginitis.	-	-	-	-	-	
Amenorrhoea.	-	-	-	-	-	
Dysmenorrhoea.	-	-	-	-	-	
Menorrhagia.	-	2	-	2	-	
Leucorrhoea.	1	1	-	2	-	
Abortion.	-	6	-	6	-	
Delayed Labour.	-	10	1	10	-	
Postpartum Haemorrhage.	-	1	-	1	-	
Retained Placenta.	-	4	-	4	-	
Premature Birth.	-	-	-	-	-	
Puerperal Septicaemia.	-	4	5	9	-	
Mastitis.	-	-	-	-	-	
Abscess of Breast.	-	1	-	1	-	
Other Diseases.	-	13	5	15	-	
DISEASES OF ORGANS OF LOCOMOTION:-						
Osteitis.	1	20	-	21	1	
Arthritis.	1	51	-	58	1	
Spondylitis.	-	-	-	-	-	
Bursitis.	-	2	-	2	-	
Other Diseases.	11	159	3	163	19	
CARRIED FORWARD.	464	11881	791	12345	456	

TABLE VI.

General Public Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR YEAR 1920.

DISEASES.	Remaining in Hospital at end of 1919.	Yearly Total. Admissions.	Deaths.	Total No. treated.	Remaining in Hospital at end of 1920.	REMARKS.
BROUGHT FORWARD.-	454	12881	791	12345	456	
DISEASES OF THE CONNECTIVE TISSUE:-						
Cellulitis.	10	182	1	192	7	
Abscess.	11	228	-	239	12	
Elephantiasis.	-	-	-	-	-	
Other Diseases.	3	174	1	187	25	
DISEASES OF THE SKIN:-						
Urticaria.	-	7	-	7	-	
Eczema.	1	16	-	17	-	
Boil.	-	52	-	52	-	
Carbuncle.	-	-	-	-	-	
Herpes.	-	-	-	-	-	
Psoriasis.	-	-	-	-	-	
Oriental Sore.	-	1	-	1	-	
Tinea.	-	3	-	3	-	
Scabies.	1	103	-	104	8	
Acne.	-	-	-	-	-	
Prickly Heat.	-	-	-	-	-	
Other Diseases.	11	161	-	172	24	
INJURIES:- General.	9	55	5	64	-	
" Local.	84	2516	31	2600	113	
" G.S.Wound.	-	1	-	1	-	
Surgical Operations. X	(8)	(227)	-	(235)	-	
Tumours.	3	22	-	25	1	
Malformations.	-	-	-	-	-	
Poisons.	-	25	4	25	-	
Parasites - Animal.	-	19	-	19	1	
Protozoa.	-	-	-	-	-	
CARRIED FORWARD.	596	16840	833	16055	647	

TABLE VI.

General Native Population.

RETURN OF DISEASES AND DEATHS (IN-PATIENTS) FOR THE YEAR 1920. 472

DISEASES.	Remaining in hospital at end of 1919.	Yearly Total.		Total cases treated.	Remaining in hospital at end of 1920.	REMARKS.
		Admissions.	Deaths.			
BROUGHT FORWARD.	605	15450	833	16055	647	
Trematoda (Flukes).	-	1	-	1	-	
Cestoda:-						
Taenia Solium.	-	34	1	34	-	
Taenia Saginata.	-	3	1	3	-	
Nematoda:-						
Ascaris.	-	5	1	5	-	
Trichocephalus Dispar.	-	-	-	-	-	
Trichina.	-	-	-	-	-	
Dracunculus.	-	-	-		-	
Filariasis.	-	4	-	4	-	
Strongylus.	-	1	-	1	1	
Ankylostomiasis.	2	59	16	61	4	
Oxyuris.	-	1	-	1	-	
Insecta:-						
Myiasis.	-	3	-	3	-	
Other Diseases.	-	1	-	1	1	
TOTAL.	607	15562	852	16169	653	

X Recorded under respective diseases.

TABLE VII.

European Officials.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Male.	Female.
INFECTIVE DISEASES:-		
Beri-Beri.	-	-
Cerebro-Spinal Fever.	-	-
Chicken-Pox	-	-
Cholera.	-	-
Dengue.	-	-
Diphtheria.	-	-
Dysentery.	1	-
Endocarditis-Infective.	-	-
Enteric Fever.	-	-
Erysipelas.	-	-
Gonorrhoea.	2	-
Influenza.	12	-
Kala Azar.	-	-
Leprosy.- (a) Nodular.	-	-
(b) Anaesthetic.	-	-
Malaria.- (a) Tertian.	44	1
(b) Quartan.	1	-
(c) Aestivo-autumnal.	11	-
(d) Chronic Malarial.	1	-
(e) Black-Water.	-	-
Measles.	-	-
Malta Fever.	-	-
Plague.	-	-
Pneumonia.	-	-
Rabies.	-	-
Relapsing Fever.	-	-
Rheumatic Fever.	4	-
Septicaemia.	-	-
Trypanosomiasis (Sleeping Sickness).	-	-
Small-Pox.	-	-
CARRIED FORWARD.	76	1

TABLE VII.

European Officials.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Male.	Female.
BROUGHT FORWARD.-	76	
INFECTIVE DISEASES:- (Contnd.)		
Syphilis.- (a) Primary.	4	-
(b) Secondary.	1	-
(c) Inherited.	-	-
Tetanus.	-	-
Tuberculosis.	1	-
Whooping Cough.	-	-
Yaws.	-	-
Yellow Fever.	-	-
Mumps.	-	-
Anthrax.	-	-
Other Infective Diseases.	-	-
INTOXICATIONS:-		
Alcoholism.	-	-
Morphinism.	-	-
Others.	-	-
GENERAL DISEASES:-		
Anaemia.	3	-
Anaemia-Pernicious.	-	-
Diabetes.	-	-
Exophthalmic Goitre.	-	-
Gout.	2	-
Leucocythaemia.	-	-
Hodgkin's Disease.	-	-
Myxoedema.	1	-
Purpura.	-	-
Rickets.	-	-
Scurvy.	-	-
Other General Diseases.	29	1
CARRIED FORWARD.	118	2

TABLE VII.

European Officials.

RETURN OF DISEASES (IN-PATIENTS) for

DISEASES.	Male	Female
ZYMOTIC DISEASES:-	128	
LOCAL DISEASES:-		
Diseases of the Nervous System.		
Mental Diseases.		
Diseases of the Eye.		
" " " Ear.		1
" " " Nose.	15	-
" " " Circulatory System.	3	-
" " " Respiratory System.	43	2
" " " Digestive	194	6
" " " Lymphatic,		-
" " " Urinary.		
" " " Generative.		
" " " Organs of Locomotion.		-
" " " Connective Tissue.		-
" " " Skin		1
	19	
	79	
G.S.Wds.	-	-
Surgical Operations. X	(3)	-
Tumours.	-	-
Malformations,		-
Poisons,	-	
Parasites - Animal;	4	
TOTAL.	594	24

X Recorded under respective diseases.

TABLE VII.

Native officials.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Male.	Female.
INFECTIVE DISEASES:-		
Beri-beri.	-	-
Cerebro-spinal Fever.	-	-
Chicken-pox.	-	-
Cholera.	-	-
Dengue.	-	-
Diphtheria.	-	-
Dysentery.	9	-
Endocarditis-Infective.	-	-
Enteric Fever.	-	-
Erysipelas.	-	-
Gonorrhoea.	2	-
Influenza.	54	-
Kala Azar.	-	-
Leprosy.- (a) Nodular.	-	-
(b) Anaesthetic.	-	-
Malaria.- (a) Tertian.	271	-
(b) Quartan.	1	-
(c) Aestivo-autumnal.	196	-
(d) Chronic Malaria.	-	-
(e) Black-Water.	-	-
Measles.	-	-
Malta Fever.	-	-
Plague.	-	-
Pneumonia.	1	-
Rabies.	-	-
Relapsing Fever.	-	-
Rheumatic Fever.	47	-
Septicaemia.	-	-
Trypanosomiasis (Sl.Sickness).	-	-
Small-Pox.	-	-
CARRIED FORWARD.	588	-

TABLE VII.

Native Officials.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Male.	Female.
BROUGHT FORWARD.-	588	
INFECTIVE DISEASES:- (Contnd.)		
Syphilis.- (a) Primary.	1	-
(b) Secondary.	1	-
(c) Inherited.	-	-
Tetanus.	-	-
Tuberculosis.	-	-
Whooping Cough.	-	-
Yaws.	-	-
Yellow Fever.	-	-
Mumps.	-	-
Anthrax.	-	-
Other Infective Diseases.	-	-
INTOXICATIONS:-		
Alcoholism.	-	-
Malaria.	-	-
Others.	-	-
GENERAL DISEASES:-		
Anaemia.	36	-
Anaemia-Pernicious.	-	-
Diabetes.	-	-
Exophthalmic Goitre.	-	-
Gout.	-	-
Leucocythaemia.	-	-
Hodgkin's Disease.	-	-
Myxoedema.	-	-
Purpura.	-	-
Rickets.	-	-
Scurvy.	-	-
Other General Diseases.	83	-
CARRIED FORWARD.	709	-

TABLE VII.

Native Officials.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Male.	Female.
BROUGHT FORWARD.-	709	-
LOCAL DISEASES:-		
Diseases of the Nervous System.	94	-
Mental Diseases.	-	-
Diseases of the Eye.	48	-
" " " Ear.	31	-
" " " Nose.	127	-
" " " Circulatory System.	2	-
" " " Respiratory.	304	-
" " " Digestive.	503	-
" " " Lymphatic.	10	-
" " " Urinary.	1	-
" " " Generative.	10	-
" " " Organs of Locomotion.	46	-
" " " Connective Tissue.	24	-
" " " Skin.	116	-
INJURIES:-		
General.	7	-
Local.	207	-
G.S.Wound.	-	-
Surgical Operations. X	(3)	-
Tumours.	-	-
Malformations.	-	-
Poisons.	1	-
Parasites - Animal.	11	-
TOTAL.	2261	-

X Recorded under respective diseases.

TABLE VII.

General European Population.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Male.	Female.
INFECTIVE DISEASES:-		
Beri-Beri.	-	-
Cerebro-Spinal Fever.	-	-
Chicken-Pox.	7	2
Cholera.	-	-
Dengue.	-	-
Diphtheria.	-	-
Dysentery.	2	1
Endocarditis-Infective.	-	-
Enteric Fever.	-	-
Erysipelas.	-	-
Gonorrhoea.	9	-
Influenza.	16	9
Kala Azar.	-	-
Leprosy.- (a) Nodular.	-	-
(b) Anaesthetic.	-	-
Malaria.- (a) Tertian.	20	3
(b) Quartan.	-	1
(c) Aestivo-autumnal.	8	9
(d) Chronic Malaria.	1	-
(e) Black-Water.	-	-
Measles.	-	-
Malta Fever.	-	-
Plague.	-	-
Pneumonia.	1	1
Rabies.	-	-
Relapsing Fever.	-	-
Rheumatic Fever.	5	3
Septicaemia.	-	-
Trypanosomiasis (Sl.Sickness).	-	-
Small-Pox.	-	-
CARRIED FORWARD.	69	29

TABLE VII.

General European Population.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Male.	Female.
BROUGHT FORWARD.-	87	42
LOCAL DISEASES:-		
Diseases of the Nervous System.	10	6
Mental Diseases.	1	1
Diseases of the Eye.	9	2
" " " Ear.	11	2
" " " Nose.	5	2
" " " Circulatory System.	3	-
" " " Respiratory.	26	9
" " " Digestive.	89	64
" " " Lymphatic.	3	1
" " " Urinary.	2	-
" " " Generative.	14	11
" " " Organs of Locomotion.	4	2
" " " Connective Tissue.	7	4
" " " Skin.	11	7
INJURIES:-		
General.	-	-
Local.	65	10
Gun Shot.	-	-
Surgical Operations. X	(A)	-
Tumours.	2	-
Malformations.	-	-
Poisons	1	-
Parasites - Animal.	2	1
TOTAL.	371	170

X Recorded under respective diseases.

TABLE VII.

General Native Population.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Male.	Female.
INFECTIVE DISEASES:-		
Beri-Beri.	2	-
Cerebro-Spinal Fever.	9	-
Chicken-Pox.	205	2
Cholera.	-	-
Dengue.	-	-
Diphtheria.	-	-
Dysentery.	560	68
Endocarditis-Infective.	-	-
Enteric Fever.	-	-
Erysipelas.	1	-
Gonorrhoea.	906	21
Influenza.	2297	388
Kala Azar.	-	-
Leprosy.- (a) Nodular.	4	1
(b) Anaesthetic.	3	-
Malaria.- (a) Tertian.	4347	597
(b) Quartan.	1355	20
(c) Aestivo-autumnal.	5694	901
(d) Chronic Malaria.	200	20
(e) Black-Water.	-	1
Measles.	3	2
Malta Fever.	-	-
Plague.	3	4
Pneumonia.	157	18
Rabies.	-	-
Relapsing Fever.	18	-
Rheumatic Fever.	1495	183
Septicaemia.	4	1
Trypanosomiasis (Sl.Sickness).	-	-
Small-Pox.	8	-
CARRIED FORWARD.	16580	2635

TABLE VII.

General Native Population.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920. 488

DISEASES.	Male.	Female.
BROUGHT FORWARD.-	16580	2035
INFECTIVE DISEASES:- (Contnd.)		
Syphilis.- (a) Primary.	454	33
(b) Secondary.	455	135
(c) Inherited.	38	21
Tetanus.	2	1
Tuberculosis.	130	17
Whooping Cough.	44	14
Yaws.	278	180
Yellow Fever.	-	-
Mumps.	45	-
Anthrax.	-	-
Other Infective Diseases.	22	-
INTOXICATIONS:-		
Alcoholism.	-	-
Morphinism.	-	-
Others.	-	-
GENERAL DISEASES:-		
Anaemia.	306	89
Anaemia-Pernicious.	1	-
Diabetes.	5	2
Exophthalmic Goitre.	-	-
Gout.	9	-
Leucocythaemia.	-	-
Hodgkin's Disease.	-	-
Myxoedema.	-	-
Purpura.	-	-
Rickets.	2	-
Scurvy.	92	2
Other General Diseases.	448	54
CARRIED FORWARD.	18911	2583

TABLE VII.

General Native Population.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

DISEASES.	Male.	Female.
BROUGHT FORWARD.-	16580	2035
INFECTIVE DISEASES:- (Contnd.)		
Syphilis.- (a) Primary.	454	33
(b) Secondary.	455	135
(c) Inherited.	38	21
Tetanus.	2	1
Tuberculosis.	130	17
Whooping Cough.	44	14
Yaws.	278	180
Yellow Fever.	-	-
Mumps.	45	-
Anthrax.	-	-
Other Infective Diseases.	22	-
INTOXICATIONS:-		
Alcoholism.	-	-
Morphinism.	-	-
Others.	-	-
GENERAL DISEASES:-		
Anaemia.	306	89
Anaemia-Pernicious.	1	-
Diabetes.	5	2
Exophthalmic Goitre.	-	-
Gout.	9	-
Leucocythaemia.	-	-
Hodgkin's Disease.	-	-
Myxoedema.	-	-
Purpura.	-	-
Rickets.	2	-
Scurvy.	92	2
Other General Diseases.	448	54
CARRIED FORWARD.	18911	3583

TABLE VII.

General Native Population.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920. 483

DISEASES.	Male.	Female.
BROUGHT FORWARD.-	16580	2035
INFECTIVE DISEASES:- (Contnd.)		
Syphilis.- (a) Primary.	454	33
(b) Secondary.	455	135
(c) Inherited.	38	21
Tetanus.	2	1
Tuberculosis.	130	17
Whooping Cough.	44	14
Yaws.	278	180
Yellow Fever.	-	-
Mumps.	45	-
Anthrax.	-	-
Other Infective Diseases.	22	-
INTOXICATIONS:-		
Alcoholism.	-	-
Morphinism.	-	-
Others.	-	-
GENERAL DISEASES:-		
Anaemia.	306	89
Anaemia-Pernicious.	1	-
Diabetes.	5	2
Exophthalmic Goitre.	-	-
Gout.	9	-
Leucocythaemia.	-	-
Hodgkin's Disease.	-	-
Myxoedema.	-	-
Purpura.	-	-
Rickets.	2	-
Scurvy.	92	2
Other General Diseases.	448	54
CARRIED FORWARD.	18911	3583

TABLE VII.

General Native Population.

RETURN OF DISEASES (OUT-PATIENTS) FOR THE YEAR 1920.

No.	DISEASES.	Male.	Female.
	BROUGHT FORWARD:-	18911	2583
	LOCAL DISEASES:-		
	Diseases of the Nervous System.	2965	228
	Mental Diseases.	13	2
	Diseases of the Eye.	2483	747
	" " " Ear.	1248	176
	" " " Nose.	817	52
	" " " Urinary System.	33	4
	" " " Respiratory.	24512	1250
	" " " Digestive.	13232	2023
	" " " Lymphatic.	766	83
	" " " Urinary.	88	7
	" " " Genital.	435	161
	" " " Organs of Locomotion.	2674	181
	" " " Connective Tissue.	2369	201
	" " " Skin.	7462	1203
	GENERAL:-		
	General.	542	43
	Local.	24544	3322
	Miscellaneous.	-	-
	Surgical Operations. X	(16)	(80)
	Tumours.	23	9
	Malformations.	2	-
	Poisons.	34	3
	Parasites - Animal.	1391	658
	TOTAL.	94944	12938

X Recorded under respective diseases.

TABLE VIII.
EUROPEANS.

Return of Infective Diseases treated at the various Hospitals and Dispensaries in Kenya Colony & Protectorate during 1920.

...SEASES.		Mombasa	Voi	Malindi	Lamu	Lolleshid	Moyale	Serenli	Kismayu	Gobwen	Kisumu	Kericho	Kakamega	Kisii	Nandi	Fort Hall	Embu	Kitui	Nyeri	Nairobi	Makindu	Machakos	Kyambu	Nakuru	Naivasha	Eldama Ravine	Rumuruti	Eldoret	Kacheliba	Londiani	TOTAL.
...Pox	Cases																									3		10			13
	Deaths																														
	Cases	6	1			1	1				2						1							2	1			5			28
	Deaths	-	-				-				-						-							-					12		-
...ever	Cases	2									3													4	1	1	1		1		20
	Deaths	-									-													-							-
	Cases	25					1		4		18				1					69				20	3	6	[illegible]	7		1	167
	Deaths																		2	1											3
	Cases																														-
	Deaths																														-
	Cases	142	3	1	2	2		1	3	4	34	3	4	4		1		6	32	129	9	3		27	6	3		12	3	1	442
	Deaths	3																													3
... Fever	Cases	2									1									1											4
	Deaths										1									1											2
	Cases	6																		1											[illegible]
	Deaths																														-
...r	Cases																														-
	Deaths																														-
	Cases																														-
	Deaths																														-
	Cases	3																		8	1			1		1		2		1	18
	Deaths																			3											3
	Cases																														-
	Deaths																														-
...a	Cases	2																		8				1							12
	Deaths																			1											1
	Cases																							1							1
	Deaths																														-

...only given ... actually treated at Government Institutions.

TABLE VIII.

NATIVES (INCLUDING ASIATICS)

Return of Infective Diseases treated at the various Hospitals and Dispensaries in Kenya Colony & Protectorate during 1920.

DISEASES.		Mombasa	Malindi	Vol	Lamu	Kismayu	Gobwen	Lolldaid	Moyale	Marsabit	Serenli	Kitui	Kericho	Nakuru	Kisii	Port Hall	Meru	Nyeri	Kibui	Nandi	Embu	Nairobi	Machakos	Kyambu	Nakuru	Naivasha	Eldama Ravine	Londiani	Rumuruti	Eldoret	Kacheliba	TOTAL.
	Cases																				1	5	49				1	4				60
	Deaths																					1	1									2
Cerebro Spinal Meningitis	Cases	7				1						6			1	4						15		1	1		3			1	60
	Deaths	6				1						4			1	1						13			1		3			1	33
	Cases	14		18								56	14	1	38	1	14	2		1		429		48	128	30	17	37	1	2	5	865
	Deaths																															-
Dysentery	Cases	121	29	31	62	16	7	10	46		34	88	26	3		1	7	9	7	2	9	297	23	26	6	174	10	23	15		31	21	1125
	Deaths	10				2	1					1					1	1				8	4			7		2	2			39
Enteric Fever	Cases	2		2							1											2									1	8
	Deaths																															-
Malaria	Cases	830	27	17		61	56		198			118	324	320		64		57		20	9	971	12	20	432	69	622			369	79	4609
	Deaths	12		1		2						4				1		2				5										40
Pneumonia	Cases	5				2			1			5				1						9			1		1			12	1	25
	Deaths	2																														2
Relapsing Fever	Cases	3259	382	482	185	447	124	21	181	50	441	1895	283	264	133	555	349	709	139	159	377	1952	564	165	99	352	122	100	158	237	251	417	17717
	Deaths	32										2		2		6	1	1				21	6		1			1			2		46
Septic Poisoning	Cases	1										1											1	1		1							9
	Deaths	1																								1							2
Small Pox	Cases	1		1								2									1	6									1		12
	Deaths																																4
Spotted Fever	Cases																																-
	Deaths															1																	-
Tuberculosis	Cases	133										44		13	6							46		5						1	1	249
	Deaths	64									1	29		7								25		3						1	-	130
Ulcers	Cases	94		12	2	7	3	1	11		7	57	6	7	17	27			9	2	1	499	9	24	254	13	82	16		23	7	1212
	Deaths	11				2					2	12	1		1	3			5			138	3	1	28	3	32	4		10	1	283
Venereal	Cases	12				4	2															25		1			3					47
	Deaths	1																				3					1					5
Wounds	Cases	37	25		19	16	8				12	7	8	5	1	2			1			65	2	8	4	1	4		1	1	3	242
	Deaths	29				1					1	1										10				1	2					41
Yaws	Cases												10		1						1	169		1	6							188
	Deaths																															
Other Diseases	Cases																					29										29
	Deaths																					2										2

N.B.- This table only gives the numbers actually treated at Government Institutions.

IN COLONY AND PROTECTORATE OF [illegible] A [illegible] 19[illegible].

Total Number admitted on account of Enteric.				Number admitted who had been previously inoculated against enteric.		Number of those who died.				Total number inoculated against Enteric fever during the year.	
						Previously inoculated.		Not previously inoculated.			
OFFICIALS.		Non-OFFICIALS.		OFFICIALS.	Non-OFFICIALS.	OFFICIALS.	Non-OFFICIALS.	OFFICIALS.	Non-OFFICIALS.	OFFICIALS.	Non-OFFICIALS.
Cases.	Deaths.	Cases.	Deaths								
4	-	16	-	1 (in 1900)	-	-	-	-	-	-	8

The occurrence of the 20 cases was as follows:-

Mombasa	2
Kisumu	3
Nairobi	7
Nakuru	4
Naivasha	1
Eldama-Ravine	1
Rumuruti	1
Kacheliba	1
	20

TYPHUS IN KENYA COLONY.

By J. L. Gilks, F.R.C.S., Edin.,
Principal Medical Officer.

During the 7½ years I have been stationed in Nairobi a considerable number of cases (at least 30) of a fever associated with a rash have come under my notice and as far as I am aware I have been fortunate enough to see either in consultation or otherwise the great majority of the cases which have occurred here. One case has been reported from Nakuru. This fever has now been definitely decided to be typhus the existence of which had not been previously known in this country, although it has been suspected in Uganda. The importance of the presence of this disease in our midst is [illegible] for [illegible] publishing it abroad after [illegible] comparatively slight investigation, but steps a[illegible] to ascertain whether, as is almost certa[illegible] to what extent, the disease exists among natives and [illegible]

The cases have all [illegible] European [illegible] practice not having included Indians o[illegible] [illegible]es, and the pat[illegible] have all been of the higher soc[illegible] [illegible] and li[illegible] under comfortable and often also [illegible] condi[illegible] [illegible] poor white problem is not [illegible] which we are [illegible].

The disease has pres[illegible] the following chara[illegible]teristics and the duration [illegible] usually been roughly a fortnight followed by a considerable amount of prostration.

There appears to be some seasonal variation in that the cases have occurred more in the cooler than the hotter part of the year.

The onset is rapid with a feeling of chilliness, the temperature quickly rising to as much as 104 and remaining high with slight variations till it falls by lysis. Slight sore throat is usually noticed but the chief complaint is of pain in the joints which in some

cases has become very acute and associated with definite swelling. Intense Headache is also complained of. Delirium has not been marked.

About the 4th day of the illness the rash develops papular and at first very like the rose spots of typhoid but usually larger. These spots at first fade on pressure but later become darker until finally they become almost petechial and they last several days after the temperature has fallen to normal. The eruption is distributed over the whole body, possibly more thickly over the shins than elsewhere, and appears both on the palms of the hands and the soles of the feet. Previous to the eruption of the typical rash patches of erythema, urticaria, and macular mottling have been observed. The tongue early becomes very foul and dry and the breath offensive. There is nothing in the throat beyond a slight congestion of the fauces. The spleen has been slightly enlarged in most cases. Glands are not affected.

The only complication which has been observed was jaundice in one case several days after the temperature had come down.

Recovery has ensued in all cases but one which died at the Edinburgh Hospital and of which I was enabled to follow the course by the kindness of Dr. H.M.F. Welsh. This case though of a severe type appeared to be running a favourable course but after the temperature came down coma ensued and the patient died on the 18th day of the disease.

It was this death which attracted attention to the possible seriousness of this hitherto undiagnosed fever and the close similarity of the temperature chart and the course of the disease to a case described in the article on typhus in the last edition of Castellani's Tropical Medicine was pointed out by Dr. Anderson and a provisional

diagnosis of typhus was arrived at.

It may be argued that the description of the cases which I have given is a typical description of typhus of a mild type, but the comparative mildness of the disease in a country like this where one constantly meets with undifferentiated cases of pyrexia and the absence of anything like an epidemic has tended to obscure the diagnosis. I myself had imagined that the fever was one akin to Rocky Mountain Spotted Fever and it is of interest to note that this is by some regarded as a variety of typhus.

As soon as the provisional diagnosis of typhus was arrived at in the case above mentioned a culture of bacillus was cabled for from South Africa and we were fortunate enough on the day of its arrival to find another case. The report of the bacteriologist, Dr. P. A. Clearkin, on the Weil Felix reaction in this case is as follows:-

" Serum obtained from the patient on the 5th
" day of the disease gave no agglutination with B.
" Proteus X 19 macroscopically or microscopically
" even in a dilution of 1 in 10.

" On the 12th day of illness, blood was again
" obtained from the patient. In this case, dilutions
" of 1 in 10, 1 in 20, 1 in 40, 1 in 80, and 1 in
" 160, were put up macroscopically or microscopically.
" Definite agglutination was observed in a dilution
" of 1 in 20. A further dilution of 1 in 30 was put
" up and agglutination observed but not so strong
" as 1 in 20. 1 in 40 still failed to agglutinate.
" The controls were (1) Normal saline (2) Normal
" serum (3) Serum taken from the patient on the 5th
" day. All the controls were negative.
" A dilution of 1 in 30 would appear to be a low
" one on which to diagnose a positive "Weil Felix"

" reaction, but the interesting point is that
" these agglutinations appeared in the patient's
" blood between the 5th and 12th day of the illness.
" Dr. Pirie of the South Africa Institute for
" Medical Research, informs me that frequently in
" cases which are clinically severe typhus, agglu-
" tination of only 1 in 10 to 1 in 40 are obtained.
" It may be that a similar condition of affairs
" holds good in East Africa. This however will be
" further tested."

The point arises as to how the disease is spread and by what it is carried. Pediculosis which is the curse of countries where typhus is endemic is [illegible] us here by its rarity and the social type of the [illegible] not one which is as a rule affected by pediculi [illegible] other form of vermin. I myself had always [illegible] the disease was insect-borne, and that, most prob[illegible] tick was the agent. My reasons for suspecting [illegible] were (a) the slight epidemicity of the disease [illegible] than single cases having occurred in any one [illegible] (b) several of the cases have complained of [illegible]ed septic sores which they have described as the [illegible] of severe tick bites. It is of course true that [illegible] in this part of the world suffers more or le[illegible] from the attacks of ticks, jiggers, and other [illegible] insects.

I append four charts of typical cases with brief notes of the progress of the disease.

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I append four charts of typical cases with brief notes of the progress of the disease.

CASE 1.

Mrs. F.K. Age 47. Admitted 13.9.1920.

Complained of being ill seven days with headache, sore throat, pain in joints and limbs. A few papular spots on right shoulder, knees and fingers swollen and painful, spleen palpable.

15.9.1920. (prof over

of trunk and limbs i pal

soles of feet. T fe

severe.

18.9.19

23.9.19

down to norma

Patient is dro

Death occ

increasing coma.

before death; there

the fluid was steril.

Widal reaction an cu

negative.

Name } Mrs F.K. [illegible]

Age 47

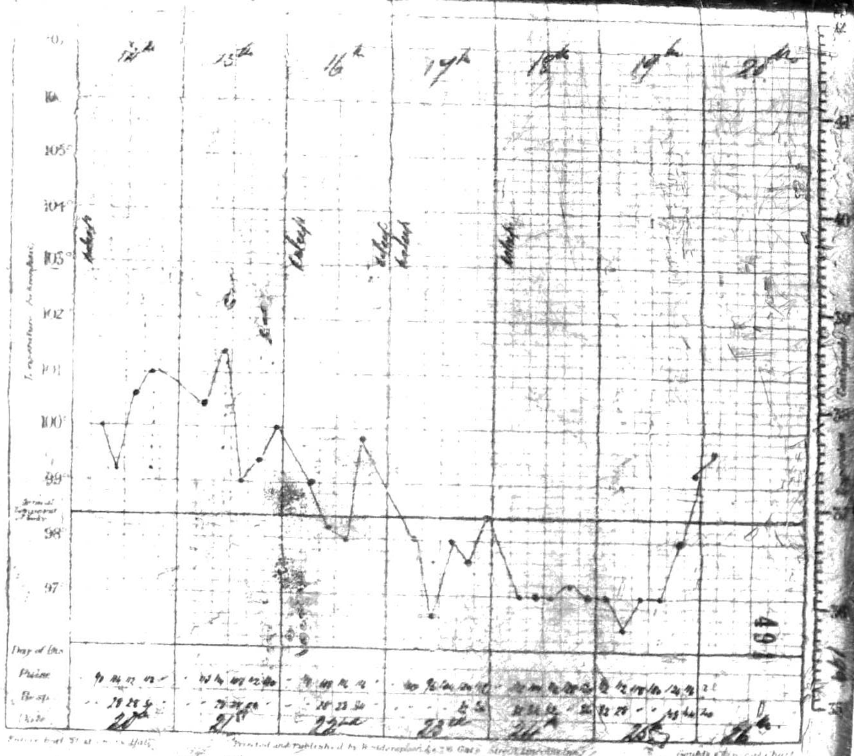
Diet

Case Book No

Notes of Case

Date of admiss. 15.9.20

Result



CASE 2.

Miss B. M. Age.53. Admitted 18.10.1919.

Previous to admission had felt out of sorts for about a week and for five days had complained of what she took to be a septic sting on the left thigh. Has had a very bad head and back ache.

Developed a rash all over on the morning of admission, on admission she seemed very ill. Tongue dry and very foul. Dusky papular rash over whole body and extremities including palms of hands and soles of feet. Sloughy patch of cellulitis on outer side of left thigh. No enlargement of glands. Spleen not palpable.

19.10.1919. Complains of pains in joints chiefly wrists.

20.10.1919. Rash much darker. Temperature coming down. She made an uninterrupted recovery.

Traces of the rash persisted for some time after the temperature became normal.

This patient had a severe attack of enteric some three months later while on her way home.

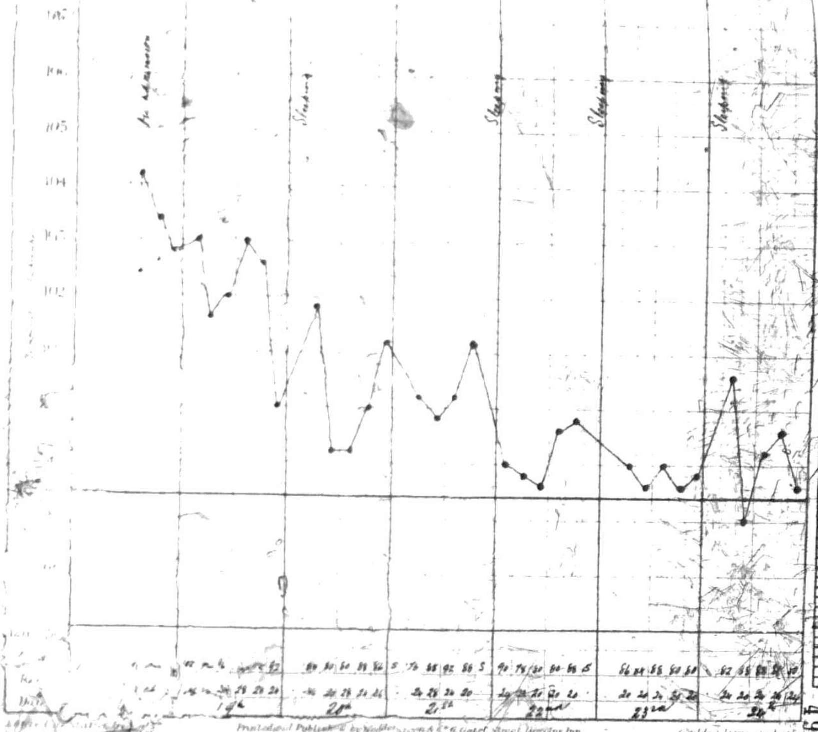
Name Mrs B. M.

Age 53

Diet

Case book

Notes of case



Date of admission 18/10/9.

Result

Printed and Published by ... Street, Lincolns Inn.

Case 3.

Mrs.I.D.F. Age 32 Admitted 9.12.1920.

Previous to admission had complained of headache and dyspnoea and pain in the back and limbs, and had complained a short time before of a septic tick bite on the left thigh.

On the morning of admission a few discrete red papular spots had appeared on the left leg and at the beginning of [illegible] was a dark mottling of the limbs [illegible] beer [illegible]

16.12 [illegible] spread over whole body and limbs [illegible] palms and soles.

[illegible] spots darker in colour.

[illegible] reaction negative.

[illegible] Tongue very [illegible] coated, [illegible] darker. Joint pains [illegible]

16.12.1920 [illegible] reaction positive, 1 in 40.

Patient made an uninterrupted recovery.

4 HOUR CHART.

DISEASE

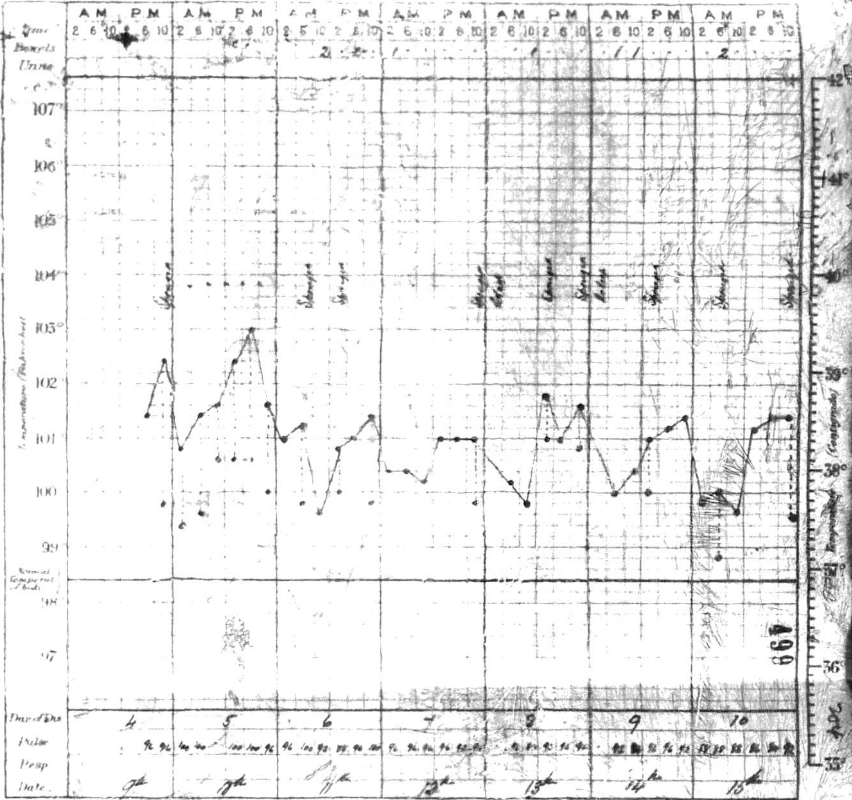
Name: Jno I. D. F

Age: 32

Diet

Case Book No.

Notes of Case



Date of admission

16 12 20

Result

Entered at Stationers Hall — Printed and Published by W. Allingham & Co 6 Little Street Lincolns Inn — Goulds Clinical Chart.

4 HOUR CHART.

DISEASE.

Name { Mrs / I. D. F

Age 32

Diet

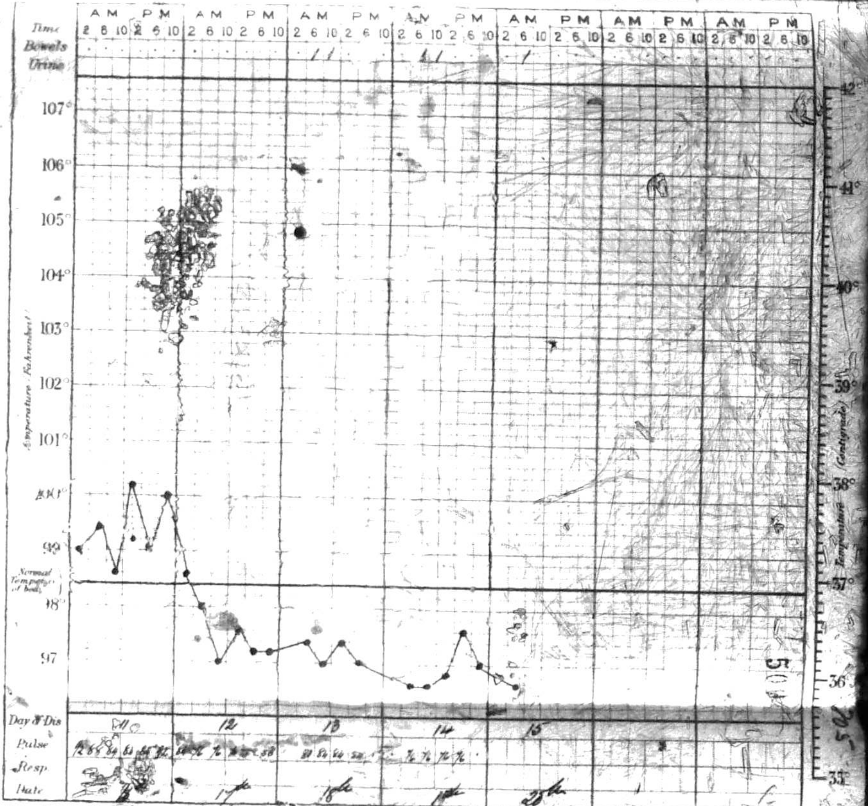
Case Book No.

Notes of Case

Date of admission

16 12.22

Result



Entered at Stationers' Hall

Printed and Published by ... Gate Street ...

...'s Clinical Chart

CASE 4.

Captain E.D.F. Age 30. Admitted 17.6.1915.

Gave a history of a slight temperature and malaise for a week associated with a septic sore on the right fore-arm the result of an insect bite.

A pink rash very much like typhoid appeared over the whole body on the morning of admission.

During his stay in hospital the rash is noted as getting gradually darker until with the fall of temperature it began to fade. He complained very much of great pain in the joints, chiefly the wrists which were slightly swollen.

Widal Reactions were negative throughout.

This case was an officer of the R. A. M. C. stationed in Nairobi and living in a good house.

Owing to the rush of War patients the notes on this case are very incomplete.

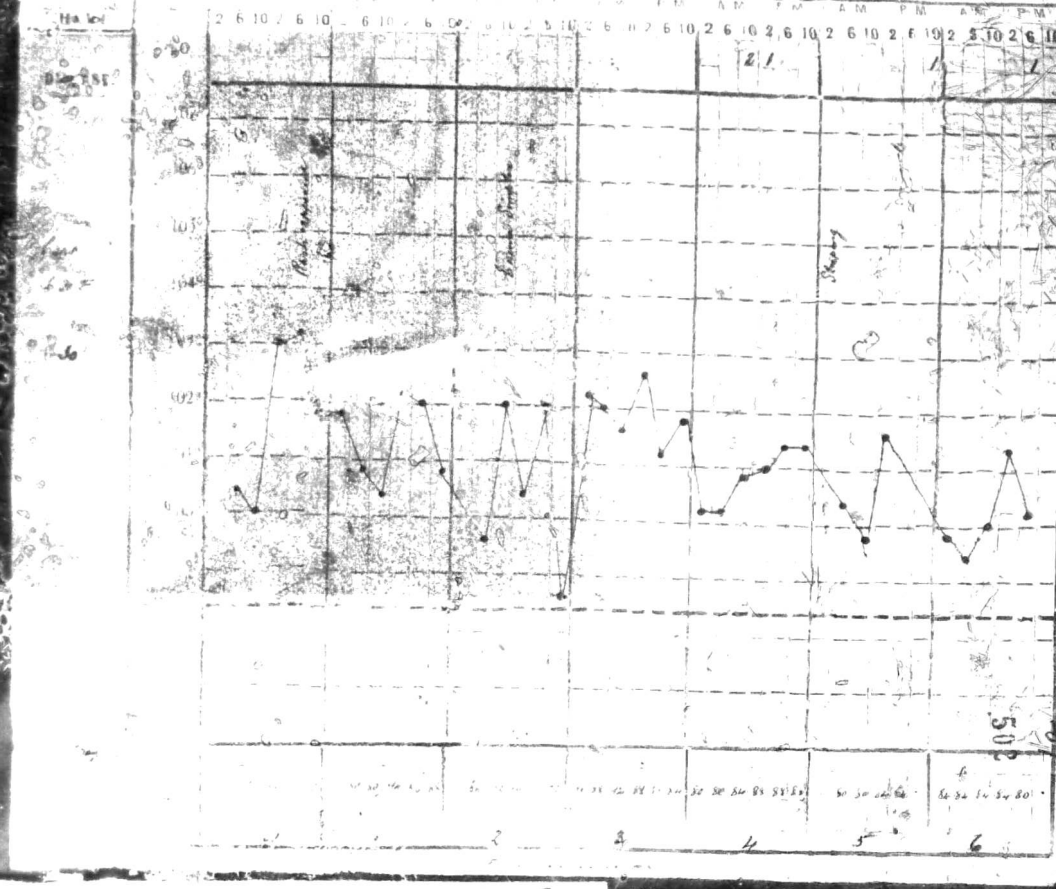
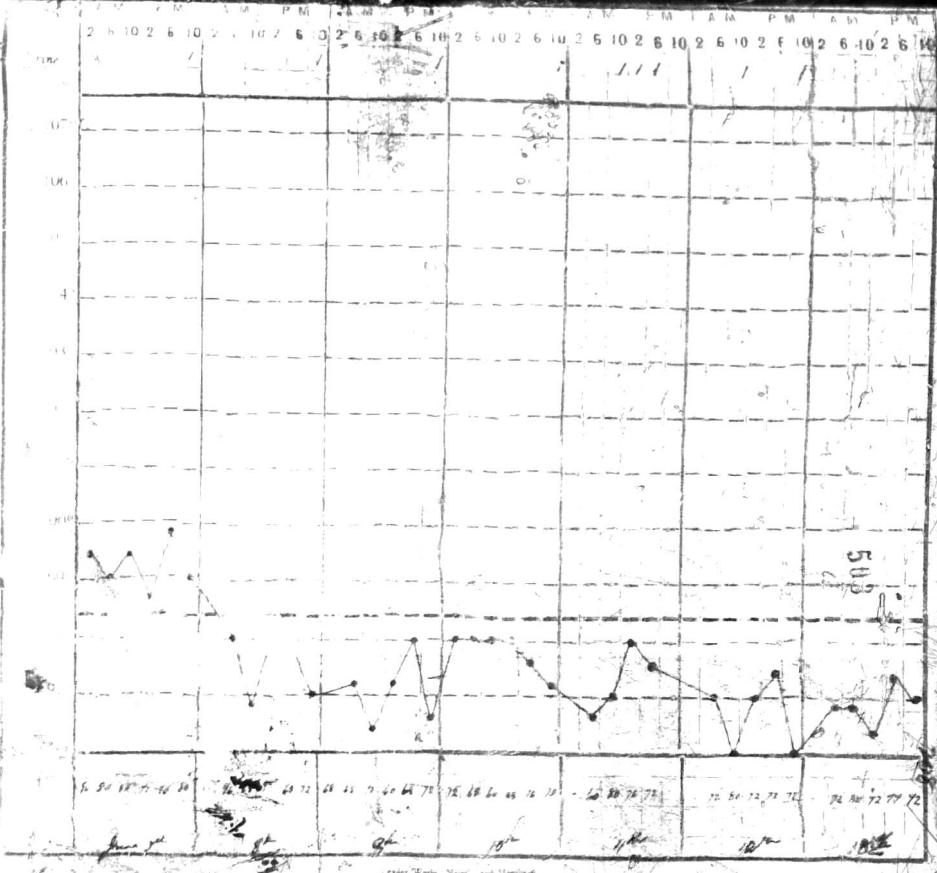


CHART.

DISEASE.



Gov Kenya

52753/22

C.O. [stamp]

Ind

505

13 April 1922

Sir

DRAFT.

Kenya

No 571

Gov Northey

MINUTE.

Mr. Jowell 12.4.22
Mr. Downie 12.4.22
Mr.
Mr. Grindle.
Sir H. Lambert.
Sir H. Read.
Sir J. Masterton Smith.
Mr. Wood.
Mr. Churchill.

Sir

I have the honour to inform you that the Annual Report on the Bacteriological Laboratory for 1920, which was enclosed in Lieut Colonel Northey's despatch No 1314 of the 20th of Sept 1921, was referred to the Advisory Medical & Sanitary Committee for Tropical Africa at a

[Not] worth printing
AGAD
12/4

recent meeting.

2. With reference to the difficulties mentioned on page 7 of the report in connexion with the Wassermann reaction, attention was drawn to the new "Sigma" test which was stated to be a simpler process than the Wassermann test and to be both cheaper and more effective. Guinea pigs are not required for this test.

(Signed) WINSTON S. CHURCHILL

For ... Signature

10 Dec 1921

DRAFT. minute

Crown Agents

G
Kenya 438

MINUTE.

Mr. Jewett 9/12/21
Mr. Parkinson
Mr.
Mr. Grindle.
Sir H. Lambert.
Sir H. Read.
Sir G. Fiddes.
Mr. Wood.
Mr. Churchill.

With reference to your letter of the 30th of Nov and the 1st of Dec, I return the corrected proof of the Annual Medical Report and the Bacteriological Report, Kenya, for the year 1920. Please see also the ... at ... on the ... ... assume that ... these amendments ... now be printed ... with ...

Gen
52755/26 Kenya

507

DRAFT. minute

Crown Agents

minute

G

minute Kenya

7 December regarding

(a) The Kenya [illegible] Report

(b) The Nairobi Bacteriological Report

250 [illegible] copies of [illegible]

(a) 2000 copies of (b) are

[illegible] printed, as [illegible]

in our letter of 27 October,

MINUTE.

Mr. Jewell 31. 12. 21

Mr. Parkinson 2

Mr.

Mr. Grindle

Sir H. Read

Sir H. [illegible]

Sir [illegible]

Mr. Wood

Mr. Churchill

[illegible] verbal instructions

2755

~~Gov.52755/21. Kenya.~~

508

Amd 4345/22

Downing Street,

18 March 1922.

DRAFT.

NO. 448

Northey

MINUTE.

...well 14.3.22.
...owne 16.3.22
Bottomley 16.3.22

After despatch.

Sir,

I have the honour to inform you that the Annual Medical Report of Kenya for the year 1920, copies of which were enclosed in Lieutenant Colonel Notley's despatch No.1314 of the 20th of September, was referred to the Advisory Medical and Sanitary Committee for Tropical Africa at a recent meeting.

2. The Committee regarded the Report as extremely interesting and deserving of high commendation. They remarked however, that the Acting Governor in his covering despatch had not submitted any observations on the Report and that in many cases the Principal Medical Officer ~~had in most cases omitted to~~ makes no recommendations for dealing with the difficulties discussed. I shall be glad to receive an expression of your views in the despatches accompanying future reports, or, if you have no observations to offer, a remark to that effect. The Committee also expressed the

x. 52755 not printed

is desirable that in future the term "Non European" should be substituted for "Native" in the above table and elsewhere as required.

6. It was observed, with reference to page 21 of the Report, that little attempt appears to be made to diagnose cases of dysentery with a view to ascertaining whether the cases are amoebic or bacillary. The Committee considered that some attempt should be made at diagnosis, in spite of the absence of laboratory facilities, and that every medical officer should be supplied with a microscope. I shall be glad if you will furnish me with a return shewing the number of microscopes in the Colony and how they are distributed, and also the pattern of each microscope and its condition.

8. The Committee commented on the references on pages 26 and 31 to the lack of facilities for pathological investigation at the Coast, in the Kenya and Nyanza Provinces, and pointed out that accurate diagnosis was the bedrock of the work of the Medical Department.

7. With reference to page 42 of the Report, it was remarked that the Medical Department had no entomologist regularly available, and enquiry was made whether the Entomological Staff of the Agricultural Department could not regularly undertake the work required by the Medical Department in addition to its present duties. The Committee expressed the hope that the urgent

? omit [ ] H.E.C.

re is a Bacteriolo- X
al Establishment -
in Nairobi - as I
e cut the reference
he minutes to the
ablishment of a Bact.

M.J.

urgent necessity for the appointment of a bacteriologist and an entomologist at Mombasa would not be overlooked.

9. Pages 46-50 - Plague: The Committee noted with concern the remarks on page 46 of the Report with regard to the unsatisfactory housing conditions in Mombasa. They asked that inquiry might be made as to what steps could be taken to minimize the evils apprehended by the Principal Medical Officer, pending the introduction of a wholesale scheme of town planning. I should be glad if the Principal Medical Officer could be asked to furnish his observations on this subject. Lieutenant Colonel Balfour drew attention to the Rodier system of rat destruction, (consisting of the destruction of females and the release of males), and Sir William Leishman urged the importance of further investigation into the causes of the prevalence of plague in endemic areas. Enquiry was also made as to the steps taken at Mombasa to prevent the importation of small pox and plague. I should be glad if the required information could be supplied.

10. The inadequate accommodation for Nursing Sisters at Mombasa was remarked upon, and the Committee expressed the opinion that before Nurses and Medical Officers were sent out to a Colony, it should be ascertained that adequate provision existed for their accommodation.

11. With regard to the remarks on

Hospital

7 omit.
H.F.D.

hospital buildings on page 52, attention was drawn to a waterproofing substance called "Waterex" recently displayed at the "Ideal Homes" Exhibition in London which would probably be of value in rendering floors impervious to water.

I have, etc.

(Signed) WINSTON S. CHURCHILL

Kenya

52755

18 March 1922

No. 187

DRAFT.

MINUTE.

Mr. Jewell
Mr. Bowring
Mr.
Mr. Davis
Sir G. Grindle.
Sir H. Read.
Sir J. Masterton-Smith.
Mr. Wood.
Mr. Churchill.

I have the honour to invite your attention to the Appendix entitled "Typhus [illegible] Colony [illegible]" which appears [illegible] of the Annual [illegible] Report on Kenya for the [illegible]

[illegible] articles published [illegible] describing [illegible] of what [illegible] a disease very similar to that described by the P.M.O. of Kenya. ~~Copies of these articles are enclosed~~

2. I shall be glad if you will inform me whether any similar disease has been observed in [illegible]

For Kenya
52755/21

512.

210

27 Oct 1921

DRAFT.

[illegible] Agents

MINUTE.

Mr. Jewell 25.10.21
Mr. Batterbee 25
Mr. [illegible] 25
Mr. Grindle.
Sir H. Lambert.
Sir H. Read.
Sir G. Fiddes.
Mr. Wood.
Mr. Churchill.

Gentlemen,

I am etc to transmit to you the Annual Medical Report on Kenya for the year 1920 & the Annual Report on the Bacteriological Laboratory Nairobi for the same period.

2. I am to request you to have 250 copies of the former Report printed and 200 copies of the latter, but proof copies should be forwarded to this Dept before any copies are struck off. Instruction

for [illegible]