

## **Report on the public health / Southern Rhodesia.**

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**SOUTHERN RHODESIA.**

**REPORT**

ON

**The Public Health**

**For the Year 1926.**

**Presented to the Legislative Assembly,  
1927.**

Salisbury, Rhodesia :

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## SOUTHERN RHODESIA.

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### Report on the Public Health for the Year 1926.

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Presented to the Legislative Assembly,  
1927.

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#### **PART I.**

##### **CHAPTER I.—ADMINISTRATION.**

It is becoming increasingly difficult to prepare a report of the public health, covering the calendar year, which will be sufficiently informative of the year's work and at the same time be ready for a parliamentary session which meets in April or May.

The essence of such a report is that it should be a concise account of the work of the department, the financial commitments involved, a return of epidemics and communicable diseases affecting all classes of people and a record of the various factors influencing the mortality and sickness rates of the Colony, for a public health report is not intended, as many persons seem to think, as a medium for the expression of opinions or for advising either the Government or the public on matters pertaining to the health of the community, other opportunities being available for the dissemination of such advice or information.

It is an easy matter to write a homily or point a moral round some particular point of public interest, but it is infinitely more laborious and time-expending to collect figures and verify and marshal facts in order to draw deductions or advance a policy.

**Establishment.**—(a) New Appointments.—Dr. N. G. C. Gane, M.R.C.S. (Eng.), L.R.C.P. (Lond.), as Assistant and Relieving Government Medical Officer, Bulawayo.

Dr. C. W. Robertson, M.B., Ch.B., Univ. Edin., D.T.M. & H., as Assistant and Relieving Government Medical Officer.

Dr. R. J. W. Burrell, M.B., B.Ch., Q.Univ. Belfast, as Assistant and Relieving Government Medical Officer at Selukwe.

Dr. J. Patton, M.B., B.Ch., Q.Univ. Belfast, as Assistant and Relieving Government Medical Officer.

Dr. R. F. Rand, M.B., C.M., M.D., Univ. Edin., F.R.C.S. (Eng.), D.P.H. (Camb.), was temporarily appointed for three months, to be stationed at Miami.

Dr. A. C. Mackay, M.A., M.B., Ch.B., Univ. Edin., was appointed Aided Medical Officer at Inyati.

(b) Resignations and Retirements.—Dr. W. M. Hewetson, Government Medical Officer, Sinoia, resigned and was placed on pension.

Major J. E. Martin, Government Medical Officer, Inyati, retired on pension.

Dr. T. Donaldson, Assistant and Relieving Government Medical Officer, Selukwe, retired on account of having reached the age limit.

Dr. N. G. C. Gane resigned during the year.

Mr. J. S. Warren, secretary, Memorial Hospital, Bulawayo, retired with a gratuity.

Mr. T. A. Miles retired on pension on account of age.

Miss A. Sidney, Radiographer, Memorial Hospital, Bulawayo, resigned during the year, and Miss B. O. Read was appointed in her stead.

(c) Transfers.—Dr. Grantley Barratt, transferred from Shamva to Sinoia.

Dr. H. J. Plowright, transferred from Bulawayo to Shamva.

Dr. J. S. Liptz, transferred from Ndanga to Enkeldoorn.

Dr. M. Pearson, transferred from Enkeldoorn to Plumtree.

(d) Leave.—During the year vacation leave of absence was granted to six medical officers and one male clerk; whilst annual occasional leave was granted to one medical officer, two lady clerks and three natives, and serious indisposition leave to two medical officers, one hospital secretary, four lady clerks and five male clerks. One medical officer was granted urgent private affairs leave.

**Nursing Service.**—Seventy-eight applications for employment were received from nurses during the year, ten of whom were given appointments; of these, two had received their training in the hospital at Bulawayo and one in the Salisbury Hospital.

Six nurses resigned during the year on their marriage.

Sixty-two applications were received for posts as probationer nurses, a third of whom were resident outside of Southern Rhodesia. Of the local applicants, many were too young, and the senior matron states that quite a number were insufficiently educated. The standard of education which is aimed at for entrants as probationers in our training hospitals is the Junior Certificate of the Cape University or its equivalent, but it is often found difficult to adhere to this standard, and in many cases a Standard VII. pass has had to be accepted. Fourteen probationers were appointed to the Salisbury Hospital and nine to the Memorial Hospital during the year. Three probationers resigned—one to be married, one for family reasons and one found that she did not like the work.

Ten probationers completed their training—five at the Salisbury Hospital and five at the Memorial Hospital, Bulawayo. Probationers entering for the Colonial Medical Council's trained nurses examination maintained the high standard of former years—one first, one second, two sixth and two eighth places being obtained. In accordance with custom, the probationer passing first was presented with a gold medal.

Six nurses were granted the ordinary six months' vacation leave, all of whom took advantage of the concession of a free passage to England and back. Forty-four were absent on occasional leave, twenty on account of serious indisposition, and one nurse was granted leave on urgent private affairs.

The establishment list of the Public Health Department will be found in the tabular appendix.

**Financial.**—The following figures show the expenditure under the Public Health and Hospital Votes under the respective headings for the year 1926, as compared with 1925, 1924, 1923 and 1922:—

*Public Health (Expenditure).*

	1926.	1925.	1924.	1923.	1922.
	£	£	£	£	£
Staff, salaries ... ..	27,304	24,972	24,745	26,059	26,184
Travelling expenses, Medical Director and staff, Government Medical Officers, Bacteriologist, Compound Inspectors, and rail and port charges ... ..	5,453	4,100	3,673	3,694	3,832
Treatment, maintenance and transport of lunatics, lepers and sick paupers, repression of infectious and contagious diseases, upkeep of lazarettos, purchase of quinine and vaccine lymph ... ..	10,335	8,533	8,600	7,241	8,843
<i>Public Health Laboratory and other Charges.</i>					
Expenditure ... ..	1,568	594	400	329	395
Administration of Foods and Drugs Ordinance ... ..	79	107	191	256	261
Totals ... ..	44,739	38,306	37,609	37,579	39,515

*Public Health (Revenue).*

	1926.	1925.	1924.	1923.	1922.
	£	£	£	£	£
Bacteriological fees ... ..	392	139	362	199	259
Sale of quinine ... ..	2,281	2,331	1,547	2,219	1,303
Totals ... ..	2,673	2,470	1,909	2,418	1,562

*Hospitals, Native Dispensaries and Asylums (Expenditure).*

	1926.	1925.	1924.	1923.	1922.
	£	£	£	£	£
Salaries ... ..	23,890	21,533	15,962	16,350	15,835
Travelling expenses on appointment, duty or leave, rail and port charges	1,645	1,255	1,440	855	1,308
Provisions and medical comforts ...	7,754	6,596	6,566	6,302	5,510
Fuel, light and water ... ..	4,480	3,971	2,892	2,856	2,694
Furniture, equipment, repairs and clothing ... ..	6,975	4,325	3,664	3,704	3,797
Drugs, disinfectants and surgical appliances ... ..	6,792	7,005	4,426	3,683	3,715
Laundry ... ..	1,558	1,446	1,130	1,040	605
Sanitary fees ... ..	566	508	455	482	348
Produce, etc. ... ..	11,446	11,181	7,764	8,101	9,207
Miscellaneous ... ..	868	473	387	514	554
Grants-in-aid to hostels, hospitals and district nursing ... ..	1,992	2,959	6,347	5,636	5,845
Totals ... ..	67,966	61,252	51,033	49,523	49,418

*Hospitals, Native Dispensaries and Asylums (Revenue).*

	1926.	1925.	1924.	1923.	1922.
	£	£	£	£	£
Fees collected from paying patients ...	25,847	21,251	13,326	15,055	13,812

Expenditure on Government hospitals, including Ingutsheni Mental Hospital, during 1926 amounted to £61,856 gross, as compared with £56,537 during the previous year, £43,810 in 1924, £43,229 in 1923 and £42,878 in 1922; an increase of £18,988 in the last five years. The revenue collected amounted to £25,847, as against £21,251 collected in 1925, £13,326 in 1924, £15,055 in 1923 and £13,812 in 1922, an increase during the last five years of £12,035.

The gross earnings from paying patients amounted to £31,033, as compared with £24,156 for the previous year, an increase of £6,877; while the total number of patients maintained was 9,508, as compared with 8,029 in 1925, an increase of 1,479.

In addition to the earnings from paying patients, the loss of revenue represented by the free treatment of paupers, police, gaol officials and others who were entitled to free medical attendance in Government hospitals, and for the cost of whom no inter-departmental charges are made, amounted to £13,428, and if Ingutsheni Mental Hospital be included, this figure is increased to £23,811, as compared with £21,475 in 1925, £19,142 in 1924 and £16,141 in 1923.

Returns showing the number of beds, the daily average of patients treated, the revenue and expenditure, the average cost per patient per diem, the number of free patients, the number of units treated, the cost to Hospital Votes of treatment and maintenance on the basis of the gross expenditure, and the loss of revenue represented thereby at the various institutions will be found in Part III.

## CHAPTER II.—WORK OF THE DEPARTMENT.

(1) **Public Health Laboratory.**—The work at the Laboratory has been handicapped and to a certain extent retarded by building operations which took much longer than was anticipated and tried the patience and now and then frayed the tempers of the staff. The result, however, is that at last we have a fine double-storied building in close proximity to the European and native hospitals, which will allow of ample accommodation for routine and research work for a long time to come. It is to be regretted that further delay in the supply of the necessary fittings for the new entomological and chemical laboratories is still holding back the work in these departments; every effort, however, is being made to repair these deficiencies.

The Bacteriologist's report shows a steady increase in the routine work of the Laboratory, there being over a thousand more examinations made and reports sent out than the previous year.

Interesting work has been done on undulant fever, on a new pyrexial disease resembling typhus and in the examination of a series of natives for evidence of latent syphilis, for particulars of which I would refer to the Laboratory reports, which are included in Part II. of this report.

Dr. Ross, the Research Fellow specially appointed by the London School of Hygiene and Tropical Medicine, has continued his researches into the causation of blackwater fever, and has published further useful information on this obscure disease and its relations with malaria. His annual report, with which is included the report of the Research Entomologist, will be found rather too technical for the average layman to follow, but is nevertheless of great value as a demonstration of the work done, the lines followed and the results so far attained.

Mr. Leeson, the Research Entomologist, also from the London School of Hygiene and Tropical Medicine, who succeeded the late Dr. Haworth, whose tragic death I alluded to in last year's report, though only a few months in the country, has already contributed much valuable information on the distribution and habits of the anophelines in some of the more malarious parts of the country.

The appointment of a Public Health Analyst has received sanction, but will not be given effect to before the middle of 1927.

(2) **Medical Inspection of Schools.**—The report of the Medical Inspector of Schools, which is issued in conjunction with this report, shows that though fewer schools were visited, considerably more children were examined than in the previous year. The report is an encouraging one, and already there is evidence of the exercise of greater parental and institutional care for the health of the young. The Medical Inspector again draws attention to the small

part played by physical training in the general education given in our schools, and stresses the need for a wider and more intelligent policy in this respect. In this he has the support of the Chief Medical Officer of the Ministry of Health in England, whose report on the health of the school child for 1925, with special reference to the chapter devoted to physical education, is to be commended to the attention of persons associated with the education and training of our children.

In this connection it is hopefully anticipated that one of the results of the medical examination of youths called up for service under the provisions of the recently promulgated Defence Bill will be to enable us to follow up the development of some, at any rate, of the young people after they have left school and have entered into the more strenuous labours entailed by earning a livelihood.

Attached to the Medical Inspector's report will be found this year for the first time a report by the Schools Dental Surgeon. This is a new appointment which came into being at the end of 1924, the result of the first year's work being only available now. This year his work was almost entirely confined to visiting schools in districts where no dental surgeon was available, and it is of interest to note that the first inspection of these hitherto untreated children showed that caries of the teeth existed in approximately the same percentage as has been found at school dental clinics in England and Wales.

Only a small proportion of the children were dentally inspected by the Schools Dental Surgeon, and none of the children in the larger Government schools in Salisbury, Bulawayo, Gwelo and Umtali or Gatooma, where, however, facilities exist for attention by local dentists.

It is proposed in the coming year to strengthen the Medical Inspector of School's office by the addition of a lady assistant medical inspector, who will examine the girls in the schools at centres situated on the railway lines, and will also be available as an instructor to local authorities and others interested in promoting centres for child welfare and ante-natal and home hygiene.

The question of further strengthening the dental staff is also receiving consideration, but just what direction this should take is still undecided. It is possible that it would best be met by the establishment of school dental clinics under part-time dentists in the larger centres, which will allow the Schools Dental Surgeon freedom to devote his attention to the children in outside and farm schools.

**(3) Compound Inspectors' Reports and Health on Mines.**—The reports of the Inspectors of Mine Compounds show little departure from the normal conditions as they exist on our mines, and this is borne out in the health and mortality returns which are received monthly from all mines, the sickness and mortality rates showing little change from last year.

There was the usual outbreak of influenzal colds and catarrhs sweeping through mine compounds, with the consequent sequelæ of broncho and lobar-pneumonia, this being somewhat more severe and more extended than in other years.

Pneumonia continues by far the most important factor in the sickness and mortality rates of natives in employment, and any cause which tends to swell the incidence of this disease has a direct influence on the death rates, which this year were slightly higher than in 1925, though still well within a reasonable limit, considering the nature of the work and the proneness to disease amongst natives living in compounds.

The death rate amongst native mine labourers has shown a steady decline in the last 21 years, having dropped in this period from 76 per thousand from all causes to 16 per thousand, though in the last year or two there has been little variation, and it may be presumed that we have reached about the normal for the present.

The increase reported in the number of cases of phthisis from 35 in 1925 to 100 in 1926 is somewhat disquieting, and calls for the consideration of the industry as to how far this disease is increasing amongst mine natives on account of their occupation, and in what manner this can best be combated.

It is interesting to note in this connection that on the mines of Southern Rhodesia silicosis or miners' phthisis amongst native employees is very little in evidence.

(b) Health on Mines.—The number of employers rendering labour returns at the 31st December was as follows:—

	1924	1925	1926
Mashonaland ... ..	222	156	138
Matabeleland ... ..	218	186	172

The average size of properties at the 31st December, 1926, is indicated by the following table:—

Mine employing	2,000 natives and over	1925	1926
" "	1,500 " "	2	2
" "	1,000 " "	3	3
" "	500 " "	4	5
" "	400 " "	6	5
" "	300 " "	2	1
" "	200 " "	5	3
" "	100 " "	6	12
" "	50 " "	38	41
" "	25 " "	72	66
" "	under 25 natives ... ..	73	60
" "		131	112

The following table shows the number of cases of sickness, number of deaths, case mortality per cent., sickness incidence per 1,000 per annum employed, and death rate per 1,000 per annum, amongst natives employed on mines in Southern Rhodesia during the year 1926:—

*Daily Average Number Employed, 41,671.*

Disease.	Total sick.	Total deaths.	Case mortality per cent.	Sickness incidence rate per mille per annum employed.	Death rate per mille per annum employed.
Malaria ... ..	5,110	43	.84	122.61	1.03
Scurvy ... ..	84	3	3.57	2.02	.07
Syphilis ... ..	533	8	1.50	12.79	.19
Pneumonia ... ..	1,595	250	15.70	38.28	6.00
Phthisis ... ..	100	47	47.00	2.40	1.13
Other diseases of the chest	2,909	22	.76	69.81	.53
Dysentery ... ..	167	11	6.59	4.01	.26
Diarrhoea ... ..	337	1	.30	8.09	.02
Other intestinal diseases	188	28	14.90	4.51	.67
Heart disease ...	44	24	54.54	1.06	.58
Debility ... ..	174	8	4.60	4.18	.19
Influenza ... ..	5,175	46	.89	124.20	1.10
Other diseases ...	3,283	107	3.26	78.78	2.57
Minor ailments ...	9,184	...	...	220.40	...
Accidents, major ...	265	91	34.34	6.36	2.18
" minor ...	9,804	...	...	235.26	...
Totals ...	38,952	689	1.76	934.80	16.53

# SOUTHERN RHODESIA.

## MORTALITY ON MINES.

*Annual Territorial Summary showing Mortality amongst Native Labourers for year ended 31st December, 1926.*

Territorial classification.	Average number employed.	DEATHS.												Death rate per mille per annum.								
		Malaria.	Scurvy.	Syphilis.	Pneumonia.	Phthisis.	Other diseases of the chest.	Dysentery.	Diarrhoea.	Other intestinal diseases.	Heart disease.	Debility.	Influenza.	Other diseases.	Accidents.	Disease.		All causes.				
																1926.	1925.	1926.	1925.			
		Totals.	Accidents.													1926.	1925.	1926.	1925.			
Southern Rhodesia	11,442	8	...	...	41	3	1	3	...	9	2	2	7	23	26	125	8.65	6.25	2.27	2.36	10.92	8.61
Port. E. Africa ...	3,788	2	...	3	19	9	4	1	...	2	2	1	4	14	4	65	16.10	13.18	1.06	3.68	17.16	16.86
Northern Rhodesia	12,498	15	3	1	84	15	10	5	1	5	3	...	20	33	23	218	15.60	14.00	1.84	2.56	17.44	16.56
Nyasaland ...	13,718	18	...	4	106	20	7	2	...	12	17	5	15	36	37	279	17.64	16.57	2.70	2.68	20.34	19.25
Other sources ...	601	...	...	...	...	...	...	...	...	...	..	...	...	1	1	2	1.66	14.93	1.66	2.13	3.32	17.06
Totals ...	42,047	43	3	8	250	47	22	11	1	28	24	8	46	107	91	689	14.22	12.73	2.16	2.65	16.38	15.38

NOTE.—The figure 42,047 is the average of the actual number of natives employed on the last day of each month, not the daily average.

*Comparative Statement of Mortality amongst Natives Employed on Mines  
in Southern Rhodesia, January to December, 1926.*

Month.	Average No. of natives employed.	No. of deaths from disease.	Death rate per 1,000 per ensem from disease.	No. of deaths from accident.	Death rate per 1,000 per ensem from accident.	Total No. of deaths.	Death rate per 1,000 per ensem from all causes.
January ...	39,747	47	1.18	7	.18	54	1.36
February ...	39,374	41	1.04	8	.20	49	1.24
March ...	40,262	31	.77	6	.15	37	.92
April ...	40,696	28	.69	12	.29	40	.98
May ...	40,908	37	.90	16	.39	53	1.29
June ...	40,427	34	.84	5	.12	39	.96
July ...	42,202	47	1.11	9	.21	56	1.33
August ...	41,554	70	1.68	2	.05	72	1.73
September...	40,850	76	1.86	9	.22	85	2.08
October ...	40,663	63	1.55	6	.15	69	1.70
November...	39,563	58	1.47	7	.17	65	1.64
December ...	39,219	58	1.48	2	.05	60	1.53

*Totals and Averages, including late Returns.*

Year.			Per annum.		Per annum.		Per annum.
1926 ...	41,671	598	14.35	91	2.18	689	16.53
1925 ...	39,386	505	12.82	105	2.67	610	15.49
1924 ...	41,286	665	16.11	89	2.16	754	18.26
1923 ...	37,482	504	13.44	105	2.80	609	16.25
1922 ...	35,718	681	19.07	86	2.40	767	21.47
1921 ...	37,605	689	18.30	94	2.50	783	20.82
1920 ...	37,669	599	15.90	75	1.99	674	17.90
1919 ...	30,296	507	16.73	90	2.97	597	19.71
1918 ...	32,766	3,629	110.76	88	2.69	3,717	113.44
1917 ...	38,861	700	18.01	149	3.83	849	21.85
1916 ...	40,420	911	22.48	172	4.24	1,083	26.73
1915 ...	37,928	832	21.94	159	4.19	991	26.13
1914 ...	36,100	897	24.85	135	3.74	1,032	28.39
1913 ...	33,543	783	23.49	158	4.71	946	28.20
1912 ...	34,494	1,073	31.11	163	4.73	1,236	35.83
1911 ...	37,909	1,085	28.62	164	4.33	1,249	32.95
1910 ...	37,826	1,682	44.64	182	4.81	1,864	49.28
1909 ...	32,721	1,383	41.27	161	4.92	1,544	47.19
1908 ...	30,865	1,397	45.26	132	4.28	1,529	49.54
1907 ...	26,098	1,486	56.94	102	3.91	1,588	60.85
1906 ...	17,381	1,163	66.91	157	9.03	1,320	75.94

# MORTALITY ON MINES: NATIVE LABOURERS

DIAGRAM ILLUSTRATING INCIDENCE OF THE PRINCIPAL DISEASES

TOTAL CASES 38,952 = 100 PER CENT

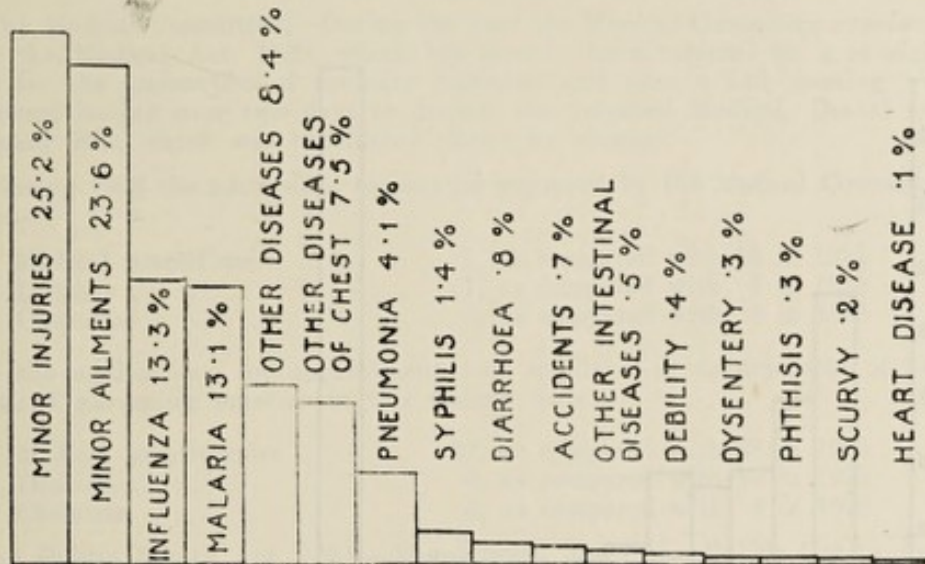
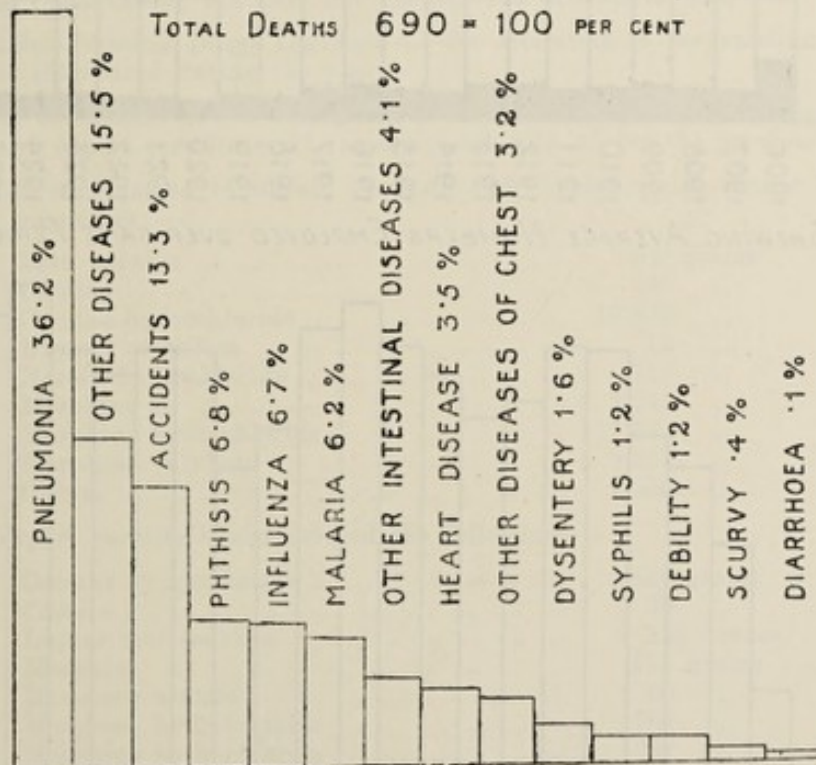


DIAGRAM ILLUSTRATING MORTALITY FROM THE PRINCIPAL DISEASES

TOTAL DEATHS 690 = 100 PER CENT

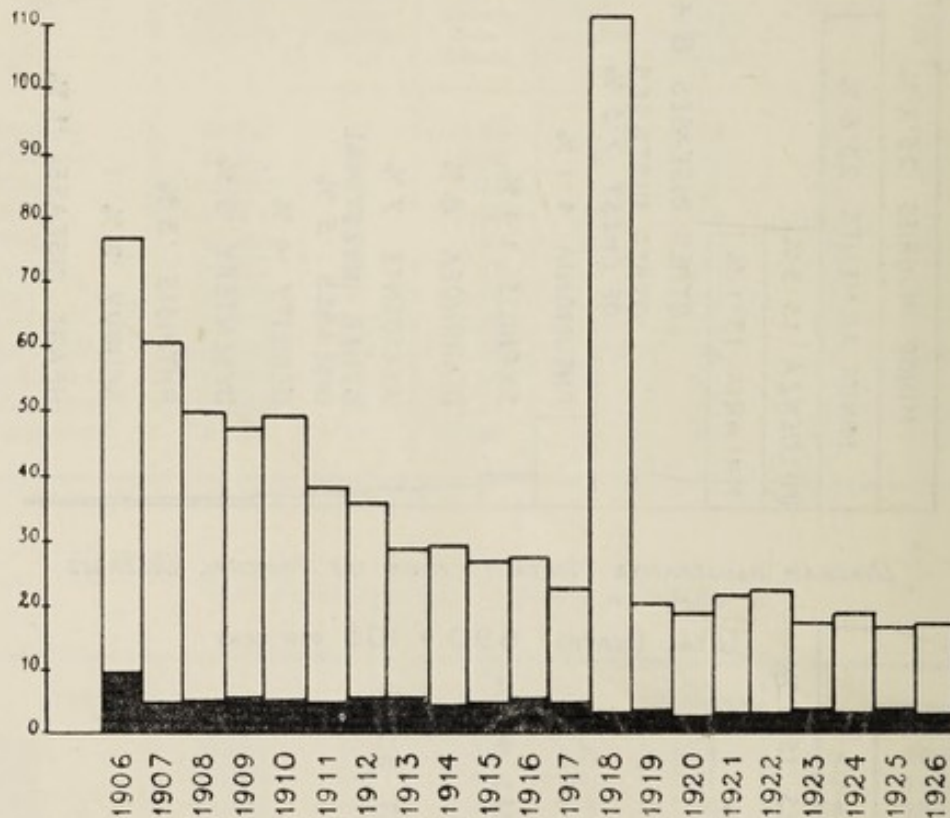


## MORTALITY ON MINES

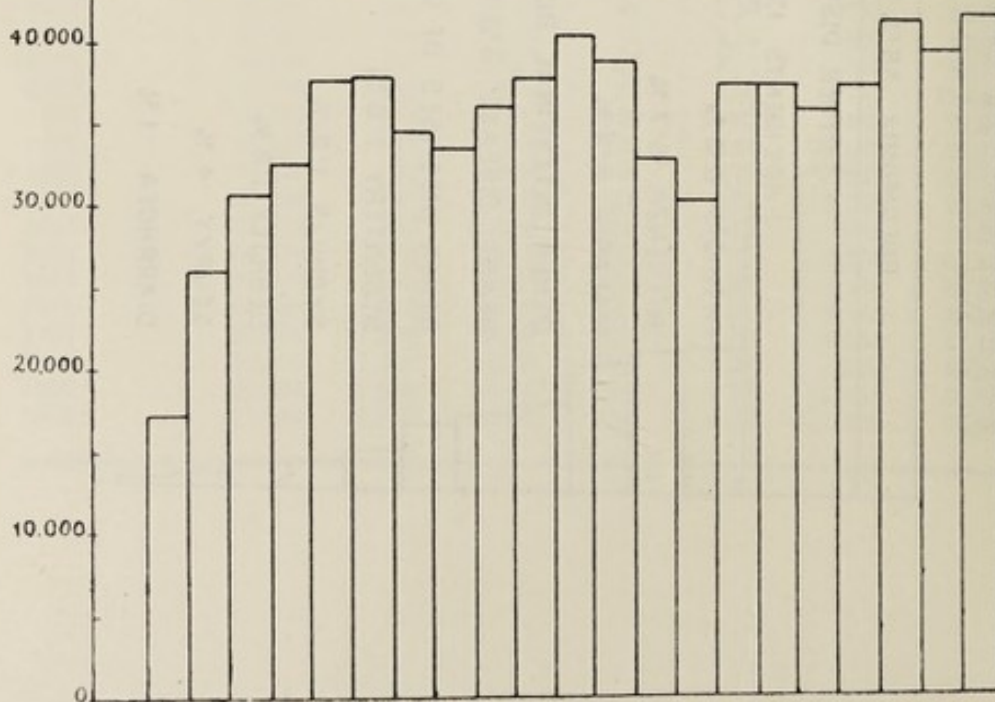
NATIVES

SHEWING MORTALITY RATES PER THOUSAND PER ANNUM SINCE 1906

DEATH RATE FROM ACCIDENT SHEWN BLACK



SHEWING AVERAGE NUMBERS EMPLOYED OVER SAME PERIOD



(4) **Public Health Legislation.**—(a) **Medical, Dental and Pharmacy Act.**—A new Medical, Dental and Pharmacy Bill, which has the full support of the professions concerned, has been drafted and will be submitted to the Legislative Assembly at its next session, and will, if passed, supersede the obsolete little Act, dated 1830, of the Cape of Good Hope, under which we are at present working, and will be more in accordance with present-day requirements and the laws relating to medical and dental practice and the sale of drugs and poisons as they exist in other countries.

(b) **Medical Committee.**—During the year the Medical Committee appointed under the Medical Act, 1830, which has already been referred to, met eight times for the transaction of ordinary business, and once a full meeting was summoned lasting over two days to discuss the proposed Medical, Dental and Pharmacy Bill, which was considered clause by clause.

During 1926 the admissions to practise approved by the Medical Committee were:—

Medical practitioners ... ..	7, as compared with 16 in 1925
Dentists ... ..	7, as compared with 3 in 1925
Chemists ... ..	8, as compared with 3 in 1925

while the applications for appointment and enquiries as to prospects of and conditions governing practice in this Colony were:—

Medical practitioners ... ..	32, as compared with 38 in 1925
Dentists ... ..	6, as compared with 13 in 1925
Chemists ... ..	4, as compared with 4 in 1925

(c) **Public Health Act, 1924.**—Regulations, under the Public Health Act, dealing with the eradication of mosquitoes in towns and villages, and others, under the Foods and Drugs Act, setting out standards for milk, butter and cheese and other dairy products, were prepared and submitted for the consideration of the Government, but have not yet received Ministerial sanction.

(d) **Habit-Forming Drugs Legislation.**—No alteration in the existing regulations was introduced during the year.

Import certificates issued during the year numbered 45, compared with 29 in 1925, and export certificates 11, as compared with 15 for the previous year.

Permits were issued to import the following habit-forming drugs in the following quantities:—

Beta eucaïne ... ..	480 grains
Cocaine ... ..	480 „
Cocaine hydrochloride ... ..	10,890 „
Extract of opium ... ..	18 „
Heroin hydrochloride ... ..	718 „
Morphine ... ..	8,541 „
Morphine hydrochloride ... ..	11,122 „
Morphine sulphate ... ..	9,257 „
Opium ... ..	1,350 „

The export permits issued covered the following:—

Cocaine hydrochloride ... ..	624 grains
Cocaine ... ..	30 „
Liquor opii sedativa ... ..	12½ ounces
Morphine ... ..	113 grains
Morphine acetate ... ..	60 „
Morphine hydrobromide ... ..	264 „
Morphine hydrochloride ... ..	237 „
Morphine sulphate ... ..	86 „
Tincture of opium ... ..	4 lbs.

Permits issued by the Veterinary Department under the provisions of Government Notice No. 368 of 27th June, 1924, numbered 32, and the total quantity

of tincture of opium authorised to be purchased under the permits so granted was 296 ounces, as compared with 31 permits authorising the purchase of 315 ounces of tincture of opium for the previous year.

Two permits were similarly granted covering the purchase of 96 ounces of glycoheroin.

There were no prosecutions under the provisions of the Habit-Forming Drugs Proclamation Regulations during the year.

(e) Natives Registration Ordinance, 1901, Amending Ordinance, 1915.—The Municipality of Umtali has signified its intention of applying for the application of similar regulations for the medical examination of natives in towns which are now in force in Salisbury and Bulawayo, and it is anticipated that it will not be long before both Gwelo and Gatooma will follow suit.

The numbers of natives examined in Salisbury and Bulawayo show under this Ordinance a slight increase, but no return showing the number of cases of diseases discovered and placed under treatment is available.

#### REPORT ON MEDICAL EXAMINATION OF NATIVES IN BULAWAYO FOR THE YEAR ENDED 31st DECEMBER, 1926.

Number of medical examinations ... ..	7,489
Number of vaccinations performed ... ..	2,191
Representing 29.25 per thousand of total examined.	

##### VENEREAL DISEASES.

		Case incidence per thousand examined.
Gonorrhœa ... ..	34	4.54
Syphilis ... ..	18	2.40
Chancroids, etc. ... ..	8	1.07
	<hr/> 60	<hr/> 8.01

Percentage—.8 per cent.

##### OTHER INFECTIOUS OR CONTAGIOUS DISEASES.

Scabies ... ..	3	.40
Ringworm ... ..	1	.13
Chicken-pox ... ..	9	1.20
	<hr/> 13	<hr/> 1.74

##### NATIVE VENEREAL HOSPITAL.

##### RETURNS FOR THE YEAR ENDED 31st DECEMBER, 1926.

	From Municipal area.		From country district.	
	Males.	Females.	Males.	Females.
Admissions ... ..	136	16	11	3
		166		
Railway native employees ... ..		32		
		<hr/> 198		
Total admissions ... ..				
Number of cases voluntarily seeking admission ... ..			30	

In addition to numbers quoted above, a few cases were treated as extern patients.

## SALISBURY MUNICIPALITY.

*Return of Examination of Natives for the Year 1926. Treated in Lazaretto.*

Disease.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Case incidence per 1,000 examined.
Syphilis ...	4	4	5	3	6	9	12	6	11	5	16	9	90	8.21
Gonorrhoea ...	2	3	4	...	1	1	3	4	3	1	2	...	24	2.19
Congenital syphilis ...	...	...	...	...	...	...	...	...	1	...	...	...	1	.09
Orchitis ...	...	...	1	...	...	...	...	...	...	...	...	...	1	.09
Paraphimosis ...	...	...	1	...	...	...	...	1	...	...	1	...	3	.27
Dermatitis ...	...	1	...	...	...	...	...	...	...	...	...	...	1	.09
Measles ...	1	1	6	1	16	3	8	24	10	3	5	1	79	7.21
Itch ...	6	10	18	8	6	1	9	8	5	4	3	5	83	7.57
Chicken-pox ...	3	...	...	...	8	7	8	2	25	12	4	1	70	6.39
Mumps ...	...	1	3	...	...	1	...	...	2	3	...	1	11	1.00
Ringworm ...	...	...	...	2	...	1	...	...	...	...	...	...	3	.27
Observation ...	...	...	...	...	...	2	...	...	...	...	...	1	3	.27
Impetigo ...	...	...	...	...	...	...	1	...	1	...	...	...	2	.18
Herpes ...	...	...	...	...	...	...	...	...	1	...	...	...	1	.09
Leprosy ...	...	...	...	...	...	...	...	...	...	1	...	...	1	.09
Grand total													373	34.03

The above number of natives were from the municipal area from a total of 10,965 natives examined.

## CHAPTER III.—VITAL STATISTICS.

A quinquennial census of the population was taken in 1926, the European population being returned at 39,174 and the native at 834,473.

The estimated population, calculated on the basis of geometrical progression during the last four intercensal years, thus proved to be fairly accurate, the population as estimated for 1925 being returned as 38,174.

**Births.**—There were 939 European births during 1926, as compared with 879 in 1925, of which 560 were males and 379 females. There were 19 illegitimate, 7 plural and 25 still births.

**Deaths.**—The European deaths registered numbered 348, as compared with 367 in 1925.

The crude death rate was 8.88 per thousand and the corrected death rate 9.92 per thousand.

Forty-six deaths occurred in infants under one year of age, giving a mortality of 50 per thousand births—a great improvement on former years, and comparing more than favourably with the infantile death rate in other colonies and dominions.

The following table gives the causes of death in infants under one year of age during 1926:—

## CAUSES OF DEATH IN CHILDREN UNDER ONE YEAR OF AGE.

	1921	1922	1923	1924	1925	1926
Malaria ... ..	5	—	11	3	5	—
Blackwater ... ..	—	1	1	—	—	—
Measles ... ..	—	—	—	—	1	—
Whooping cough ... ..	—	1	1	5	1	2
Diphtheria and croup ... ..	1	—	—	—	1	1
Influenza ... ..	3	1	6	2	4	—
Purulent infection and septicæmia ... ..	—	—	—	—	1	—
Tuberculosis of the lungs ... ..	—	—	—	—	1	—
Convulsions of infants ... ..	3	5	6	1	6	2
Acute bronchitis ... ..	2	1	3	3	3	—
Broncho-pneumonia ... ..	4	3	—	2	3	1
Pneumonia ... ..	3	5	6	7	6	4
Diarrhœa and enteritis ... ..	4	4	7	7	5	6
Hernia, intestinal obstruction ... ..	—	1	1	1	1	2
Diseases of the intestines ... ..	—	—	—	—	1	1
Other diseases of the liver ... ..	—	—	—	—	1	—
Congenital malformations ... ..	1	1	2	1	1	1
Congenital debility, icterus and sclerema ... ..	16	20	20	26	21	18
Other causes peculiar to infancy ... ..	1	3	1	—	2	—
Burns (conflagration excepted) ... ..	—	—	—	—	1	—
Absorption of deleterious gases (conflagration excepted) ... ..	—	—	—	—	1	—
Cause of death not specified or ill-defined ... ..	6	3	2	—	2	3
Dysentery ... ..	—	1	2	1	—	—
Erysipelas ... ..	1	—	—	—	—	—
Other general diseases ... ..	—	1	—	2	—	1
Simple meningitis ... ..	3	2	—	2	—	1
Epilepsy ... ..	1	—	—	—	—	—
Diseases of the larynx ... ..	2	—	1	—	—	1
Other accidents of labour ... ..	1	—	—	—	—	—
Acute abscess ... ..	—	1	—	—	—	—
Other diseases of the skin and annexa ... ..	—	—	1	—	—	1
Cerebro-spinal fever ... ..	—	—	—	1	—	—
Gangrene ... ..	—	—	—	1	—	—
Diseases of the ears ... ..	—	—	—	—	—	1
Totals ... ..	57	54	71	65	68	46

It is unfortunate that we are still unable to supply, even approximately, birth and mortality figures for the great mass of the population of this Colony, namely, the black and coloured races, the laws applying to the compulsory notification of births and deaths being only applicable to persons of European descent, and consequently any comparisons which may be drawn between the black and white races in this respect can only be conjectured.

Similar conditions exist in the Union and in the other British colonies of Africa, for in none of these has any method been found of calculating the relative increase or decrease of the indigenous races without involving an expenditure which would be altogether out of proportion to the value of the information obtained.

Therefore, though there is every reason to believe that the death rate amongst natives is higher than amongst the white people, and especially amongst infants and young children, in the absence of statistics it is impossible to give even an approximate figure, and there is no more justification for the exaggeration than there is for minimising these problematical death rates, for in neither instance does either side know anything about it. In this connection it is interesting to note that whilst amongst natives housed under the compound system and working on mines the death rate from disease is approximately double the normal crude death rate of the Europeans in the country generally, amongst native convicts and native police the mortality rate differs little from that of Europeans living and working under the same conditions.

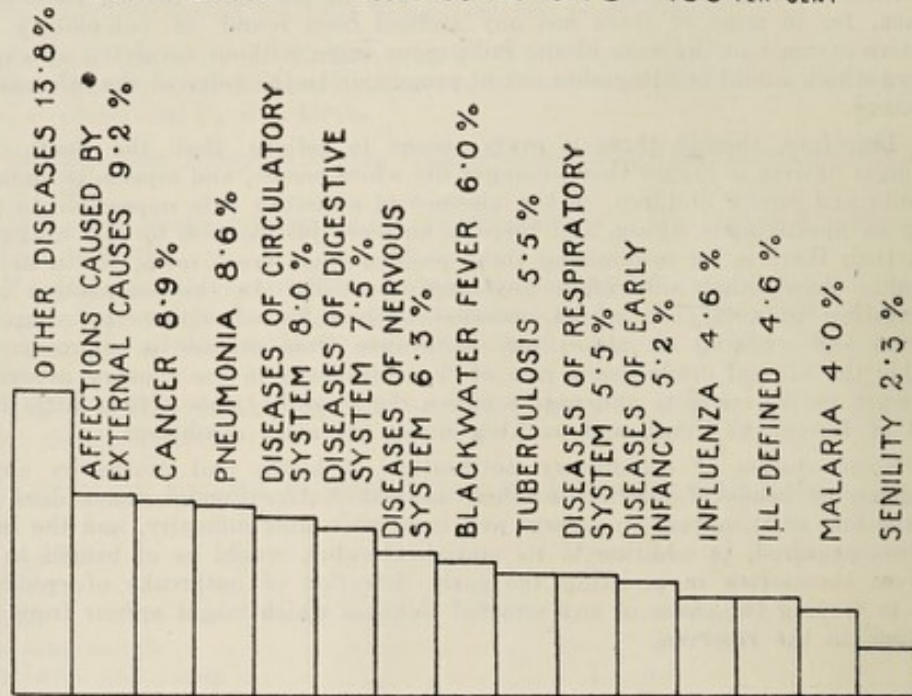
Some system of compulsory notification of births and deaths by chiefs, headmen or heads of families to their nearest Native Commissioner does not, on the face of it, appear to present any insurmountable difficulty, and the information acquired, in addition to its statistical value, would be of benefit to the natives themselves in assisting the early detection of outbreaks of epidemics and in tracing the cause of any unusual sickness which might appear from time to time in the reserves.

# EUROPEAN AND NATIVE DEATHS

DIAGRAMS ILLUSTRATING MORTALITY FROM THE PRINCIPAL DISEASES

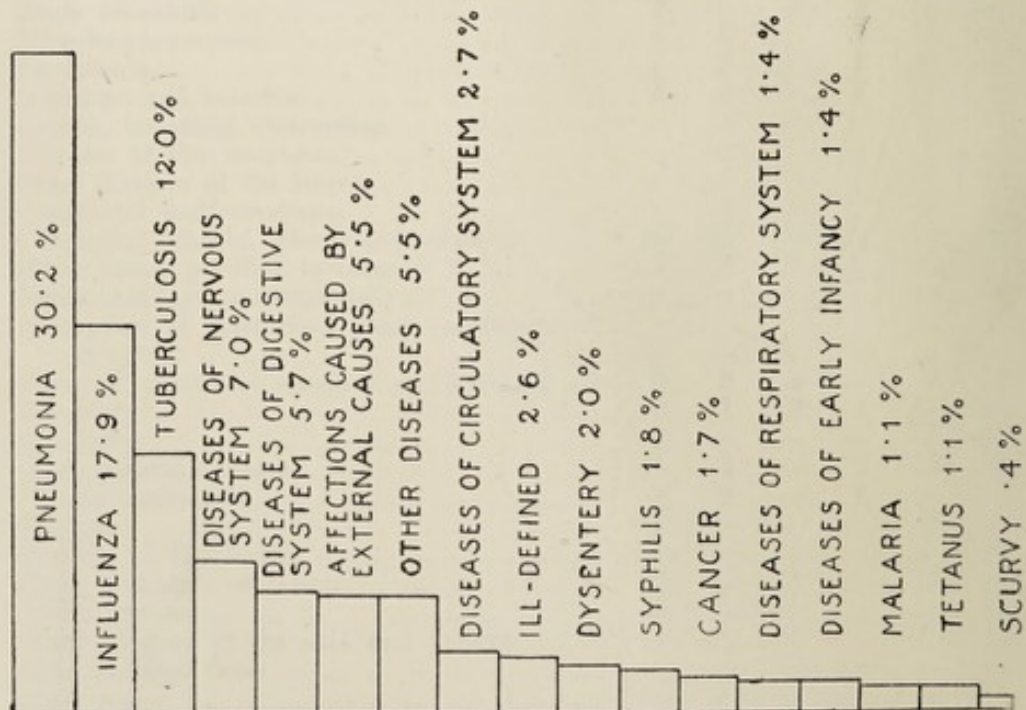
## EUROPEANS

TOTAL DEATHS 348 = 100 PER CENT



## NATIVES AND COLOURED

TOTAL DEATHS 705 = 100 PER CENT



## CHAPTER IV.—PUBLIC HEALTH.

## Infectious, Communicable and Preventable Diseases.

**Notifiable Diseases.**—The following is a summary of the infectious disease notifications during 1926, as compared with the previous year:—

Disease.	1925.		1926.	
	Number of cases.		Number of cases.	
	European.	Native.	European.	Native.
Anthrax ... ..	...	...	...	1
Chicken-pox ... ..	45	319	114	257
Cerebro-spinal meningitis ... ..	...	5	...	3
Diphtheria ... ..	14	...	10	1
Dysentery ... ..	...	...	2	...
Encephalitis lethargica ... ..	2	2	...	3
Enteric ... ..	14	7	28	16
Erysipelas ... ..	3	...	3	...
Filariasis ... ..	...	...	...	1
German measles ... ..	46	...	9	...
Influenza ... ..	35	288	69	485
Infantile paralysis ... ..	1	...	...	...
Leprosy ... ..	...	14	...	2
Measles ... ..	462	446	151	231
Mumps ... ..	38	15	7	16
Puerperal septicæmia ... ..	1	...	2	1
Phthisis ... ..	12	45	8	37
Para-typhoid fever ... ..	...	...	7	...
Relapsing fever ... ..	...	...	...	1
Ringworm ... ..	8	...	1	...
Scabies ... ..	...	1	...	...
Scarlatina ... ..	...	...	1	...
Scarlet fever ... ..	7	...	11	...
Smallpox ... ..	2	10	...	1
Syphilis ... ..	...	18	...	15
Trypanosomiasis ... ..	...	2	...	2
Undulant fever ... ..	9	4	8	2
Whooping cough ... ..	62	...	3	...

It will be seen that no epidemic of any importance occurred during the year, though outbreaks of measles, chicken-pox and whooping cough were in evidence, seriously affecting the attendance at some of the schools, and in one or two instances necessitating the isolation of school boarding houses.

Though the Public Health Act of 1924 can hardly yet be considered to be in full working order, the clauses dealing with the notification and control of infectious disease gave rise to no difficulties, and there were no prosecutions either under the main clauses or under the regulations framed under the Act.

A watchful eye is still being kept on the distribution of plague in the Union of South Africa and the infection of veld rodents, but up till now no plague has appeared in Southern Rhodesia in man or animal.

**Small-pox and Vaccinations.**—One native case only was reported during the year, and some doubt exists as to whether this was not a case of chicken-pox. No deaths were registered, there being only two deaths from this cause in the last four years. The last big outbreak occurred in 1921, when there were 145 deaths; in 1922 there were 41 deaths; in 1923, 2 deaths; and since that time no deaths from this disease have been reported.

Before the occupation and for many years after, small-pox was a prevalent and fatal disease amongst the native population of this Colony, but by dint of steady and systematic vaccination it has almost ceased to be a factor of importance in the public health of this country. This, however, does not mean that vaccination can now be abated. Surrounded as we are by countries where the native population is still largely unvaccinated, and amongst whom epidemics of small-pox are still distressingly prevalent, any relaxation of the periodic vaccination of the native population could only be followed by a return of the disease.

European vaccinations actually reported to this Department numbered 147, and the average number of unvaccinated children attending schools was returned as 10.99 per cent. of those examined by the Medical Inspector of Schools. Certificates of exemption granted under sections 84 and 85 of the Public Health Act were issued to 2 adults and 9 children, 8 of these being on religious grounds and 3 for reasons of health.

Native vaccinations numbered 28,640, including alien natives vaccinated at the various points of entry into the Colony.

A specially organised vaccination of all unvaccinated native children is contemplated in the coming year.

**Enteric Fever.**—The number of cases of enteric which are annually reported are never many, and have remained fairly constant, if we accept the admissions to general hospitals as a guide.

This year there were 50 admissions—38 Europeans and 12 natives—with 10 deaths, of which 6 were European and 4 native; a slight increase over 1925.

The cases notified revealed no epidemic, being mostly sporadic cases from rural or village areas, and the sanitary condition of the larger communities, if we are to take the incidence of enteric fever as any guide, would appear to be fairly good.

The following table shows the number of cases admitted annually for the last five years to the wards of our general hospitals:—

Year.	Admissions.
1922 ... ..	46
1923 ... ..	61
1924 ... ..	42
1925 ... ..	24
1926 ... ..	50
Total ... ..	223

**Undulant Fever.**—There were 13 admissions to Government hospitals during the year, as compared with 11 in 1925, 11 of these being European and 2 native.

From the cases treated in the Salisbury hospital it was possible to derive some useful information as to the clinical values of certain methods of treatment, mercurochrome, acriflavine and germanin, in addition to autogenous vaccines, all being given a trial, with varied, but in the most instances, disappointing results. Further investigations into the causal factors in undulant fever were continued at the Laboratory, and Dr. Ross undertook a serological survey of this disease with the material available from the hospital.

Results of research to date have tended so far to confirm the relationship of this disease as it occurs in Southern Rhodesia with the bacillus abortus of Bang and contagious abortion in cattle, so much so that the Government Medical Officer in Salisbury, in reporting on the incidence of undulant fever in his district, went so far as to state that in his opinion there was now sufficient evidence to prove that contact either direct or indirect with cattle suffering from contagious abortion was an essential condition of the disease. At the same time, though contagious abortion in cattle may be said to be almost universal

throughout the Colony, so much so that the Chief Veterinary Surgeon does not consider that any benefit is to be gained by insisting any longer on compulsory notification, undulant fever in man is still only met with in a sporadic form, and there is no indication of any mass infection of the population similar to what has been described in the case of Malta fever from goats in the south of France and on the Mediterranean littoral.

The following are the number of cases reported to this Department as having been admitted to hospitals during the last five years:—

Year.	Cases.
1922 ... ..	12
1923 ... ..	12
1924 ... ..	16
1925 ... ..	9
1926 ... ..	11
	—
	60

As a precautionary measure, consideration is now being given to the framing of regulations under the Public Health Act of 1924 by the Public Health Department and the local authorities most interested, which would ensure the compulsory examination and registration of cows belonging to dairymen selling milk in towns.

**Influenza.**—Paradoxical as it may seem in a country such as this, with its wind-swept spaces and high average of sunlight, influenzal catarrh, or the common cold, which is generally associated in our minds with damp foggy days and overcrowded cities, exerts more influence on the public health of the Colony than almost any other form of sickness; for in the majority of instances it is the primary factor in these waves of epidemic pneumonia which almost annually sweep through the country, affecting chiefly the indigenous native races, and contributing approximately 40 per cent. of the deaths amongst natives on the mines, or in other forms of employment.

In the spring of the year there was a sharp rise in the cases reported from all over the country, which in certain towns and on certain mines became epidemic in character. Though in most places the type met with was mild and recovery rapid, in others the deaths were many, chiefly from resultant broncho or lobar pneumonia. Notifications numbered 554, as compared with 323 in 1925, this being exclusive of cases occurring on the mines; whilst the hospital admissions numbered 463, as against 333 in the previous year.

**Pneumonia.**—As a sequel to and in consequence of the wave of epidemic influenza which occurred in many districts in the early winter months, there was a marked increase in the pneumonia incidence in the year under review, not so noticeable, strangely enough, in the case of mine labourers, amongst whom the sickness and mortality rate on account of this disease was very much the same as in 1925, as amongst patients treated in general hospitals, both white and black. There were 980 admissions and 314 deaths, of which 898 were natives, with 296 deaths, and 82 Europeans, with 18 deaths, a marked increase from 1925, when the admissions to general hospitals were 64 Europeans, with 16 deaths, and 379 natives, with 99 deaths.

The mortality of the disease this year was also higher than usual, being 32.04 per cent. of those treated, as compared with 25.9 in the previous year.

There was an increase of admissions to nearly all the hospitals, which in Salisbury and Bulawayo resulted in quite serious epidemics, and in the case of Salisbury was especially marked amongst those working in the tobacco grading factories. The liability to diseases of the respiratory organs experienced by persons engaged in this industry, especially the native races, calls for serious consideration, and for scientific investigation and the application of precautionary measures.

Medical officers generally have drawn attention to the high death rate they have met with this year amongst their cases, and the failure this year

of Lister's 8-strain vaccine to exert any influence on the course of the disease or affect the death rate has especially been commented upon.

It has been advanced that in this epidemic the causal organism belonged to a strain not included in Lister's compound vaccine, and this on the face of it may be accepted as a reasonable presumption. Different methods of treatment were reported upon, including the intravenous injections of mercurochrome, but the results revealed no line of treatment which could be accepted as specific, or in fact which materially affected the course of the disease or lowered the death rate.

**Malaria.**—This year there was a slight decrease in prevalence and no localised outbreak in any particular district.

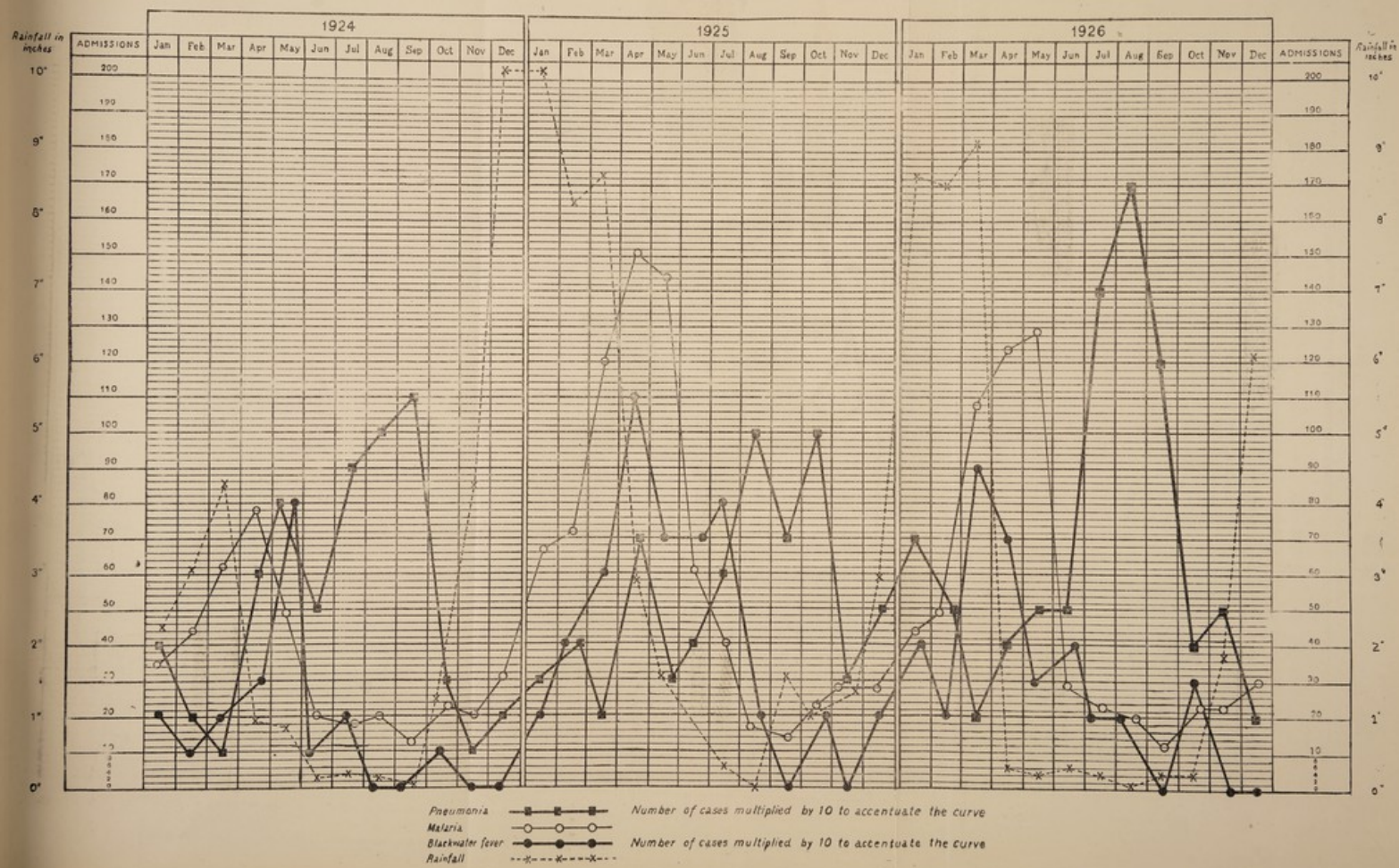
The larger number of the cases occurred in the lower lying parts of the country, especially to the north-east, and speaking generally, it may be accepted that the malarial incidence in the Colony is in inverse ratio to the altitude.

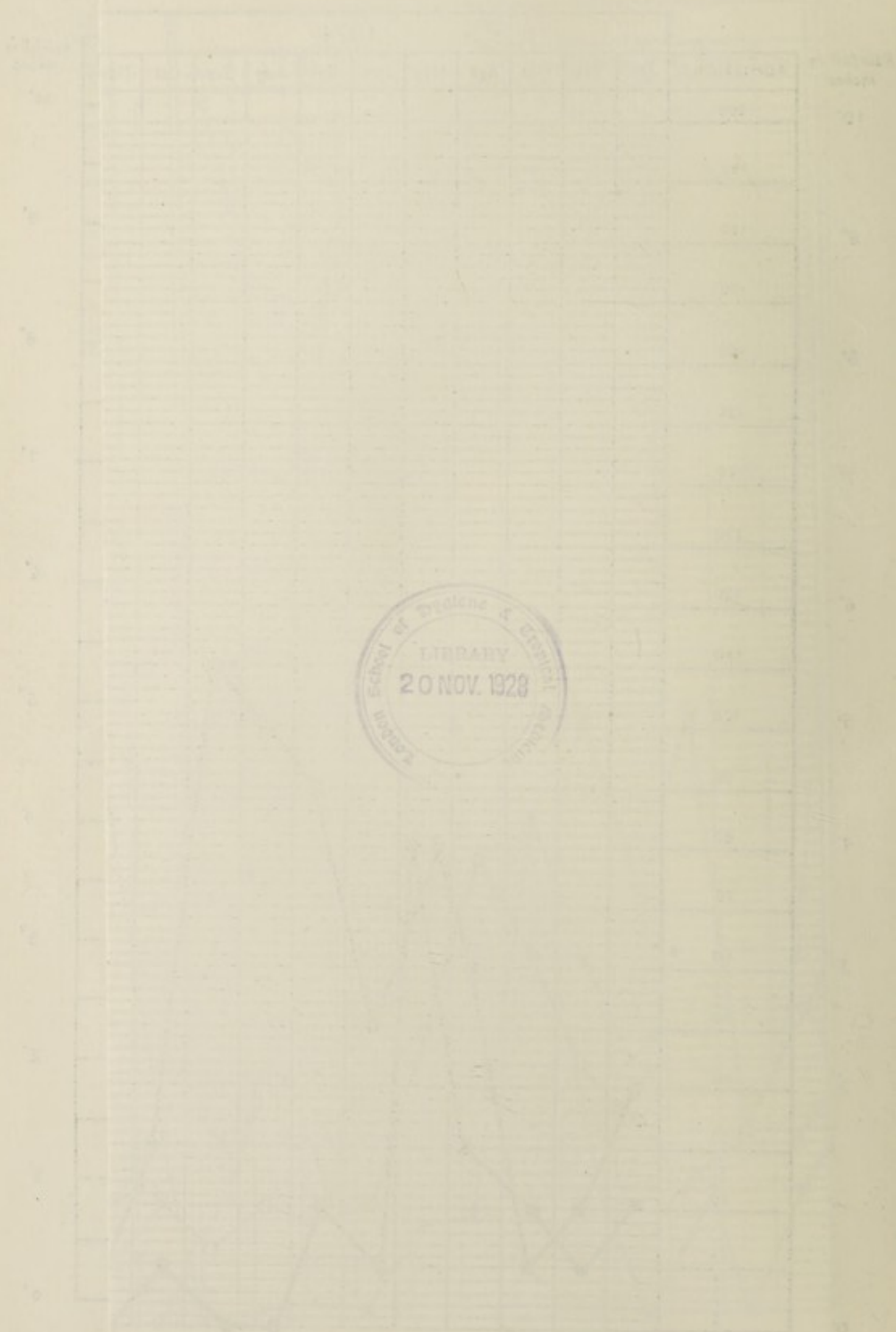
The following are the European admissions to hospitals on account of malaria and the average admission rate per thousand of the population for the last five years, together with a statement of the average rainfall for each of these years for the purpose of comparison:—

Year.	Admissions to hospital.	Admission rate per 1000 of the population.	Deaths registered.	Rainfall.	
				Season.	Average.
1922 ... ..	500	14.35	14	21.22	16.11
1923 ... ..	953	26.32	49	22.23	39.16
1924 ... ..	413	11.11	13	23.24	16.69
1925 ... ..	765	19.68	21	50.03	40.42
1926 ... ..	614	15.67	14	35.76	35.42

Charts have also been prepared which show at a glance the relation between malaria, blackwater fever and the seasonal rainfall.

CHART SHEWING MONTHLY ADMISSIONS TO HOSPITAL FROM MALARIA, BLACKWATER, AND PNEUMONIA,  
IN RELATION TO THE RAINFALL IN SOUTHERN RHODESIA.





The International Conference on Malaria, which met recently at Rome, and at which this Colony was represented by Dr. J. G. Thomson of the London School of Hygiene and Tropical Medicine, amongst other things strongly recommended the establishment of an International Malariological Institute at Rome, to which this Colony in common with others was invited to subscribe, but it was felt that as no material benefit could accrue to us by participating, the invitation to join was declined.

A mosquito survey of the lower end of the Mazoe Valley, in the neighbourhood of Bindura and Shamva, is at present being undertaken by Mr. Leeson, the Research Entomologist, and his results to date, though still incomplete, are of considerable interest.

Dr. Ross, the Research Fellow, whilst directing most of his time to the study of blackwater, has also, in conjunction with this, carried out investigations in malaria, especially with regard to the relationship between the two diseases. Trials of new remedies which have been introduced with the hope of supplanting the use of quinine, or as an adjunct to that drug, have been continued throughout the year with varying results, but as these experiments cannot yet be said to be complete, and as no results are available, it would be unjustifiable to comment on them at present.

These reports are slow in coming forward, but they cannot be lightly produced, and can only be determined by a trial on patients who can be kept under laboratory observation and if possible in hospital, and as the material is limited in number, and only available for a few months in the year, it will be understood that if a series of cases is to be carefully studied and noted, this must take a considerable time.

**Government Quinine.**—The distribution of quinine through the agency of post offices and Government stations, and which is sold at what amounts to little over wholesale price, has been continued, and is now almost universally taken advantage of by the public in rural districts.

The sales for the year amounted to 12,615 bottles of 100 five-grain tablets each, or a total of 1,261,500 tablets. The price at which this quinine is being sold to the public at the present time is 3s. 6d. per bottle.

**Blackwater Fever.**—Dr. Ross, Research Scholar, has continued his investigations into this disease, and his results, which have been fully set out in his report to the Department, will be found in the appendix to this report.

The number of cases reported during the year show a slight decrease from the previous year, following as usual the malarial curve, but show no new feature, the mortality rate of cases reported remaining fairly constant. Dr. Ross deals so fully in his report with the incidence of blackwater in Southern Rhodesia, and what is being done for it, that anything I might add would only be repetition.

The following table shows the admissions to general hospitals and the mortality rate per cent. from blackwater fever for the last thirteen years:—

Year	Number of cases of blackwater admitted to hospital.	Number of deaths in hospital.	Mortality rate per cent.
1914 ... ..	53	13	24.53
1915 ... ..	62	16	25.81
1916 ... ..	35	6	17.14
1917 ... ..	48	13	27.08
1918 ... ..	36	11	30.56
1919 ... ..	37	7	18.92
1920 ... ..	75	10	13.33
1921 ... ..	53	6	11.32
1922 ... ..	49	14	28.57
1923 ... ..	64	14	21.88
1924 ... ..	20	1	5.00
1925 ... ..	51	13	25.49
1926 ... ..	36	11	30.56
	615	135	21.55

**Leprosy.**—The report of the Assistant Government Medical Officer at Victoria on the Leper Settlement at Gomohuru will be read with interest.

The settlement has at last been moved from Morgenster, where it had been established for years, to a more suitable site some twelve to fourteen miles away, on a tributary of the Tokwe River.

This site is nearer to Victoria, is much more conveniently situated, and in every respect is particularly well adapted for an agricultural settlement for the lepers, there being an ample proportion of arable land, well watered, well wooded, and what is most important, well sheltered.

The admissions during the year were increased, for in addition to the notifications by Magistrates and Native Commissioners being higher, a large number of these unfortunates presented themselves voluntarily for admission as in-patients.

In consequence of this, and stimulated also by reports received from India on the results obtained by a system of out-door treatment of patients in general hospitals, a trial was made this year of opening a clinic for voluntary cases in the Mtoko district, under the control of Dr. Montgomery, of the American Mission, on the Nyadiri River.

Leprosy had been reported as prevalent in this and the adjoining native district of Mrewa, but the natives were shy and fearful of hospitals and doctors, and both the Native Commissioner and the Superintendent of Natives of this area were averse to enforcing the provisions of the Leprosy Repression Act, with its consequent compulsory notification and segregation, as more likely to defeat its own ends and lead to concealment. It was decided, however, to make a trial of voluntary notification, with the offer of treatment, which proved so successful, so many coming forward, that a limit had to be placed and treatment confined to a certain number of selected cases.

A separate village was built for these patients and arrangements made for their maintenance, and if successful the scheme will be materially extended in the near future; so far it is too early to issue any report upon results.

**Tuberculosis.**—The admissions to general hospitals, both European and native, have increased, there being 175 admissions, of which 141 were natives and 34 were Europeans, as compared with 141 admissions in 1925, of which 108 were natives and 33 Europeans. This is in no way a guide to the prevalence of the disease or of its spread.

There seems little reason to doubt that as far as it concerns natives employed on mines or working in or in the vicinity of the larger towns, tuberculosis is spreading, but that this disease is not yet very apparent amongst natives living in the reserves or employed as farm labourers.

A tuberculosis survey of the native and coloured races, more especially amongst those employed on mines, factories and other works, or living in the localities in or near to the larger towns, would be of value in helping the Government and the local authorities concerned to arrive at some scheme for the rural segregation of the mild cases and the institutional treatment of the more seriously affected.

**Venereal Diseases.**—Considerable strides have been made with the organised crusade against venereal disease in natives, both on the reserves and in employment.

The following table shows the cases dealt with at the various treatment centres:—

# VENEREAL DISEASE TREATED DURING 1926.

Place.	Natives.
Bulawayo ... ..	210
Salisbury ... ..	300
Umtali ... ..	2
Gwelo ... ..	23
Victoria ... ..	1
Gatooma ... ..	257
Gwanda ... ..	12
Enkeldoorn ... ..	3
Shamva ... ..	37
Sinoia ... ..	1
Belingwe ... ..	1
Ndanga ... ..	27
Mrewa and Mtoko clinic ... ..	Few treated as yet
Que Que ... ..	198
Morgenster clinic ... ..	345
Mnene clinic, Belingwe ... ..	218
Bikita clinic ... ..	322

The treatment centre at Gatooma was begun during the year, and will shortly move into permanent buildings adjacent to the native hospital. It has already more than justified itself, and is proving most successful in collecting cases from the town and district, including the smaller mines and the farms. The new clinic will provide separate male and female wards, an ablution and an operating room, a common kitchen with bath rooms and sanitary conveniences for both sexes.

The patients are issued with rations and cook for themselves.

There is a trained native orderly and his wife in charge, and the Government Medical Officer visits daily.

A new centre has also been established at Bikita, some sixty miles to the east of the town of Victoria, which is under the direct care of the Native Commissioner, Mr. Watters, who takes a keen interest in this work, and is visited periodically by the Government Medical Officer from Ndanga. Here more cases of yaws than true syphilis are seen, and the rapid results obtained by the oral administration of Stovarsol are as startling to the natives as they are satisfactory to those in control.

A large increase in the cases applying for treatment has also been reported from the mission hospitals at Mnene in the Belingwe district, and Morgenster in the Victoria district.

From an analysis of the type of cases presenting for treatment at all the centres, it would appear that up till now it is mostly the chronic tertiary lesions which are seen, and that the number of cases in the primary and secondary stages, when the disease is most infective, are very few. This is unfortunate, for until this disease can be found and treated in its early stages, the influence of these centres in stamping out syphilis must be abortive.

To this end an attempt is now being made to direct the greatest effort, but it is difficult to induce the native to apply for treatment so long as he is not seriously inconvenienced.

In this respect the periodical medical examination of natives in towns is helpful, but even here difficulties are experienced, and getting a hold of the early cases is everywhere a problem.

**Pseudo-Typhus Fever.**—Considerable attention has been directed to the collecting of clinical detail and in conducting laboratory investigations into a new febrile disorder which has occurred, apparently for the first time, in and around Salisbury during the early summer months of the year, and which, for want of a better name, has been termed pseudo-typhus fever.

Dr. Andrew Balfour, Director of the London School of Hygiene and Tropical Medicine, who was consulted on the subject, pointed out its clinical resemblance to a hitherto unclassified fever, which occurs in Tanganyika and the Southern Sudan, and to which the above name was applied.

Though the mortality to date has been nil, the patient in every instance has been seriously ill and the convalescence protracted, and in this and other respects the disease bears some resemblance to the recent outbreak of epidemic dengue fever in Natal.

Reference to the laboratory investigations into this disease will be found in the Bacteriologist's and in Dr. Ross's reports.

## CHAPTER V.—HOSPITALS AND ASYLUMS.

There were 8,995 admissions to general hospitals in 1926, compared with 7,875 in 1925 and 6,824 in 1924; of these, 3,827 were Europeans and 5,168 were coloured and natives, European admissions being increased by 803 and coloured and native by 867.

The curve of European admissions was highest in April and lowest in July; the native, highest in October and lowest in February.

Patients' units numbered 250,833, Europeans being 68,373 and coloured and native 182,460, as compared with 218,504 total units in 1925, of which 58,566 were Europeans and 159,938 coloured and native, this general increase, both in the admissions and the units maintained, entailing considerable expansion in hospital work, with its consequent increase in hospital expenditure.

**Salisbury Hospital.**—The past year, 1926, has been a period of active development in the life of this hospital, admissions greatly exceeding that of any previous year, the available accommodation being frequently strained to its utmost capacity. Provision was made to deal with this situation and the necessary work of extension begun, but before any extension of ward space could be contemplated it was essential that adequate accommodation for the corresponding increase in the nursing staff should be assured, and this was met by the commencement of a new block for night nurses, which building is now nearing completion. In addition to this, an extension has been made to the nurses' common room and separate sitting rooms provided for the sisters and senior nurses.

A start has been made with a new double-storey wing to the hospital, which will comprise upstairs a ward for infants and children, divided into two by a glass screen, and on the ground floor an additional ward for surgical male patients. Each of these wards will contain eighteen beds with accompanying duty room, and will relieve the congestion generally, especially in the women's ward, and will remove a very real grievance at present, namely, the proximity to the main female ward of the nursery, with its often fractious babies. Further linen rooms are also to be provided in this new wing.

No extensions or additions to the native hospital are at present demanded, the present building being adequate to deal with cases seeking admission, but provision will appear on this year's estimates for a block consisting of two small wards, with accompanying bathrooms and sanitary accommodation and duty room, for the separate treatment of Asiatics. The Asiatic community of Salisbury and district have been pressing for some such provision, and have even offered to assist in the furnishing of the wards and in meeting the cost of maintenance of any of their sick compatriots who may be unable to pay.

In the European section of the hospital admissions this year constitute a record, being 1,343, as compared with 1,273 for the previous year, and these figures do not include the increasing number of persons who present themselves for out-treatment—a steadily growing band, which is now attracting the attention of the hospital authorities and for which a separate department must shortly be provided.

Admissions to the native hospital were also in excess of any previous year, being 1,386, as against the previous highest of 1,076 for the year 1925. The outbreak of epidemic influenza previously referred to contributed in great measure to this, and indeed for a time severely taxed the resources of the hospital; this, however, was one of those accidental waves against which it is impossible to provide, and during the rest of the year the hospital amply and competently fulfilled its functions.

The surgeon-in-charge of the hospital in his report remarks that, in addition to the native patients who are sent to the hospital by their employers or by the Native Commissioners, quite a large number now present themselves voluntarily both for indoor and outdoor treatment, and there is little doubt that in Salisbury and the immediate vicinity the natives' superstitious dread of doctors and hospitals is gradually disappearing.

This medical officer in his report also draws attention to the unsatisfactory condition of the radiographic plant, the electric current induced showing such wide and varying fluctuations that accurate radiography is impossible. Every effort is, however, being made to discover the fault, if any, and it is hoped that matters will be remedied at an early date. If not, then the question of purchasing a complete new plant will have to be considered.

**Memorial Hospital, Bulawayo.**—Here again the number of patients treated during the year constitutes a record, the number of white patients admitted being 1,099, as compared with 970 during the previous year, and 1,267 coloured and native, as compared with 1,075 during 1925.

When the Government took over the Bulawayo Hospital from the Memorial Hospital Board in 1925, additional building and essential repairs to the existing building involving a very large sum of money were urgently required, and which, owing to lack of funds in past years, were long overdue. A programme of work in order of importance and covering several years ahead was prepared and is steadily being proceeded with.

The sum of £4,000 was placed on the loan schedule last year for this purpose, the buildings erected or commenced during the year comprising separate accommodation for infants and children, additions to the nurses' home and new quarters for the native staff. This was, in addition to a number of minor alterations and necessary repairs, met under funds set aside for maintenance.

The programme is, however, by no means complete, for the building is an old one and in many ways is inconvenient, and to bring it into line with modern requirements and meet the growing demands of a steadily increasing population necessitates the expenditure of still further large sums of money. The most urgent requirements at present are increased ward accommodation for native patients, remodelling wing containing the large ward for Europeans, known as the Grey Ward, enlargement of the kitchen and store-room, and a complete remodelling of the sanitary service.

**Umtali Hospital.**—Work here is also increasing, judging from the admission rates of the last two years, chiefly cases of natives. Last year the daily average of natives treated was actually higher than the number of beds provided, and to meet this it was necessary to increase bed accommodation and slightly overcrowd the normal ward capacity in order to provide for all the cases applying for admission.

The number of beds in the present hospital is 36 European (which includes two private wards) and 20 native, the daily average of cases under treatment during 1926 being Europeans 15.4, natives 22.1.

The following are the European and native admissions and units treated for the last three years:—

	Admissions.		Units treated.	
	European.	Native.	European.	Native.
1924 ... ..	308	285	4,209	5,834
1925 ... ..	415	458	5,930	7,042
1926 ... ..	392	521	5,649	8,087

A new hospital at Umtali on a site which has already been selected has been under consideration for some time and has finally been approved. It is hoped that an early start will be made in the preparation of plans and the commencement of the building.

**Cwelo Hospital.**—The number of patients maintained in this institution varied little from the previous year, a larger number of white patients being treated, with a balancing decrease in the number of natives, the respective figures

being 285 white admissions, as compared with 191 in 1925, and 499 native admissions, as compared with 506 during the previous year.

The Municipal Council here have again approached the Government urging the erection of a new hospital altogether, but no decision has yet been arrived at. Strong arguments both for and against have been advanced, but so long as the existing accommodation adequately provides for the needs of the town and district it is difficult to see just how the expenditure which would be involved would be justified.

**Fort Victoria Hospital.**—At the end of the year the new hospital was approaching completion, and preparations were being made for the transfer from the old to the new buildings. The latter are in every way a striking improvement on the old dingy buildings which for so long have passed muster as a hospital at this the oldest of our Rhodesian towns, and constitute a new departure in hospital architecture in that each unit is separated from the other by mosquito gauzed corridors. The building, in consequence, covers a large area of ground in comparison with the accommodation provided, and this has given rise to some criticism as to the unnecessary size of the building. In actual fact the building cost per bed has not proved high, and if it is found to be satisfactory in other respects this design will in all probability be adopted for other hospitals of similar capacity in other centres.

One hundred and sixteen white patients and 119 natives were admitted during the year, as compared with 93 Europeans and 97 natives in 1925, the daily average of patients maintained during the year, all classes, being 12.70 as compared with 6.65 for 1925.

**Gwanda Cottage Hospital.**—The number of Europeans admitted to this hospital during the year was 38, as compared with 39 in 1925, while the native admissions were 153, as compared with 214 during the previous year.

No start has yet been made in the erection of a new European hospital at this centre, but plans have been submitted and approved, and it is anticipated this building will be completed during the current year.

In explaining the reduction in the number of native patients admitted, the Government Medical Officer states that this is largely due to the closing down of an important mine in the district, whose sick natives were formerly treated in the Government hospital.

**Enkeldoorn Cottage Hospital.**—The work at this hospital continues to increase, both in European and native admissions. During the year 79 Europeans and 93 natives were admitted, as compared with 32 Europeans and 58 natives in 1925.

The Government Medical Officer at Enkeldoorn continues to visit Umvuma once a fortnight, the cost of his transport in these cases being met by the Government. With the closing of the Falcon Mine and the disappearance of the mine hospital, the public of Umvuma and district have been agitating for the establishment of their own nursing home, but so far the Village Management Board, who are interesting themselves in the matter, are still unable or unwilling to accept the offer of the building made to them by the Government in this respect. The establishment of these little homes in small villages, with hardly sufficient population to justify their existence, is a difficult problem, but as far as Umvuma is concerned, it is hoped to arrive at a satisfactory solution before long.

**Gatooma Hospital.**—The new hospital now in course of erection should be ready for occupation about the middle of the year.

During 1926, there was a substantial falling off in the number of white patients admitted to the hospital, while the native admissions showed an increase, the figures being 246 whites admitted, as compared with 302 during the previous year, and 517 natives, as compared with 478.

As no accommodation will be provided in the new hospital for maternity cases, other arrangements will have to be made, but with the substantial financial assistance now given by the Government towards district maternity and nursing homes, there should be little difficulty on the part of the people of Gatooma in

making suitable provision for an up-to-date maternity hostel for the town and district.

**Shamva Cottage Hospital.**—Here again the hospital for Europeans has been completed and occupied during the year. The building, which is well constructed of brick, comprises a large men's general ward, of eight beds, a women's general ward of four beds, a children's ward of two cots and two beds, a private ward and open-air ward, besides the other usual provision for operating theatre, dispensary, kitchens, store-rooms, etc. Further, a large amount of work has been done in laying out the grounds by convict labour, and the old buildings have been demolished.

The admissions to the hospital during 1926 were 107 whites and 191 natives.

**Sinoia Cottage Hospital.**—The block for European patients was completed here this year to take the place of the old wood and iron structure which is temporarily being used as a home for the nursing staff. The new building fills a much-felt want and will be infinitely more suited to the climatic conditions of this district. Further buildings contemplated are a new block for native patients and a house for the nurses.

One hundred and sixteen Europeans and 149 natives were treated in this hospital during the year, as compared with 83 Europeans and 105 natives in 1925.

**Belingwe Cottage Hospital.**—This institution is little more than a receiving ward with a resident nurse in charge, but as such continues to serve a useful purpose. Dr. Tilander, of the Swedish Mission at Mnene, visits periodically and is in medical charge of the patients.

Six Europeans and 45 natives were admitted during the year.

**Morgenster Leper Settlement.**—This institution has now been moved to the new site on the Goborgwe River and has been re-named the Gomohuru Leper Settlement. Dr. J. Patton, who was in medical charge of the Leper Settlement during Dr. P. H. Henson's absence on leave, has submitted a report which is printed in the Appendix.

The total expenditure incurred during the year amounted to £843 6s. 4d., and the total number of units maintained was 69,350.

Forty new patients were admitted to the Settlement during the year.

**Ingutsheni Mental Hospital.**—The report of the Medical Superintendent for the year is presented in Part II. of this report.

With the completion of the building of the new female wards 16 European female patients were removed to Ingutsheni from the Union Mental Hospitals; two patients, not being in a fit state to bear removal, still remain.

This local provision for European female lunatic patients fills a long-felt want, and the new wing in which they are housed is excellently designed and most comfortable.

Work is now proceeding on new wards for native male lunatics, which it is hoped will shortly be ready for occupation. This additional accommodation will relieve congestion and improve the conditions of this section of the hospital.

The number of patients continues to increase, and the question of a resident medical staff will require consideration in the early future.

Statistics relating to the principal diseases treated in Government hospitals during the year will be found in the appendix to this report.

A. M. FLEMING,  
Medical Director.

**PART II.****Report of the Medical Inspector of Schools  
for the Year 1926.**

Public Health Department,

Salisbury,

21st January, 1927.

The Medical Director,  
Salisbury.

I have the honour to submit my annual report on the work of the schools medical service in Southern Rhodesia during the year 1926.

The children examined this year comprised:—

- (1) Children 12 years of age and over (inclusive);
- (2) Admissions since last inspection not previously examined;
- (3) "Specials," i.e., children who were considered by the teacher, parent or guardian to be suffering from any defect;
- (4) All those recommended at previous inspections to receive medical, surgical or dental treatment.

Seventy-six schools were inspected, as compared with 85 during the previous year, but it will be observed that a greater number of children were examined, i.e., 4,349, as compared with 3,514 in 1925, an increase of 835. This was largely due to the fact that owing to the age group examined comprising a greater number of boarders, there was considerable saving of time taken up in travelling.

In the report for 1925 attention was drawn to the urgent need for a Government Dental Surgeon to deal with the dental diseases at the various schools throughout the Colony, and it was reported at that time that a dental surgeon had been appointed. The beneficial results that have accrued therefrom are already visible, and there is little doubt that a most valuable service has been instituted, which will in a very short space of time improve, not only the dental condition of the children, but enhance their general health and physique.

Another gratifying feature of the past year is the advance made in regard to school buildings. The larger centres of education are now adequately equipped with day schools and boarding hostels, whilst more attention is being given to such important details as sanitation, lighting, ventilation and water supply.

In concluding the general remarks to this report attention must be drawn to the largely increasing number of children attending the schools throughout the Colony, and it would seem that the Government will shortly have to consider the expediency of appointing an assistant medical inspector of schools. In this connection it is possible that as a first step a lady doctor, whose duty it would be to examine girls only, would prove the most valuable and would conform with the policy already adopted in Great Britain and the older colonies.

**Schools Examined.**—Below is given in detail the various schools visited and the number of children (boys and girls) examined:—

School.	Boys.	Girls.	Specials.	Total.
Emerald Hill Orphanage ... ..	18	31	2	51
Avondale Preparatory ... ..	21	20	5	46
Primary, Salisbury ... ..	33	27	19	79
Prince Edward, Salisbury ... ..	290	...	5	295
Girls' High, Salisbury ... ..	27	263	30	320
Convent, Salisbury ... ..	32	100	26	158
Hillside Preparatory, Salisbury ...	9	11	4	24
Parktown Preparatory, Salisbury	12	12	3	27
Hatfield Preparatory, Salisbury	14	13	3	30
Rhodesville Prep., Salisbury ...	5	2	...	7
Convent, Bulawayo ... ..	32	93	29	154
Milton Boys' High, Bulawayo ...	334	...	25	359
Eveline Girls' High, Bulawayo	24	305	50	379
St. George's Public, Bulawayo	94	...	3	97

School.	Boys.	Girls.	Specials.	Total.
Raylton, Bulawayo ... ..	28	11	3	42
Primary, Bulawayo ... ..	114	67	28	209
Enkeldoorn Public ... ..	29	25	7	61
Umvuma Public ... ..	14	16	2	32
Riversdale Farm School ... ..	11	9	...	20
Sinoia Public School ... ..	17	20	...	37
Bindura Farm School ... ..	6	3	...	9
Citrus Estate, Mazoe ... ..	2	4	...	6
Shamva Mine School ... ..	36	36	...	72
Arcadia Farm School ... ..	7	5	...	12
Macheke Farm School ... ..	4	5	...	9
Rusape Farm School ... ..	5	10	2	17
Sandelboom Farm School ... ..	1	10	...	11
Marandellas Public School ... ..	12	14	2	28
Diana Farm School ... ..	2	4	...	6
Makoni North Farm School ... ..	5	9	...	14
Cheshire Farm School ... ..	12	2	...	14
Chinika Farm School ... ..	6	6	...	12
Looe Farm School ... ..	6	6	...	12
Convent, Gwelo ... ..	12	32	4	48
Chaplin High, Gwelo ... ..	113	85	32	230
Hunter's Road Farm School ... ..	4	4	...	8
Lalapanzi Farm School ... ..	3	6	...	9
Willoughby's Spur Farm School ... ..	13	5	...	18
De Rust Farm School ... ..	5	12	...	17
Warringham Farm School ... ..	7	3	...	10
Daisyfield Orphanage ... ..	60	58	2	120
Shangani Farm School ... ..	6	7	...	13
Cement Farm School ... ..	5	4	...	9
Glenville Preparatory ... ..	4	5	...	9
Nyamandhlovu Farm School ... ..	6	4	...	10
Lushongwe Farm School ... ..	8	10	...	18
Matopos Aided Farm School ... ..	5	2	...	7
Wankie Mine School ... ..	12	11	...	23
Hillside Preparatory, Bulawayo ... ..	15	10	4	29
Gwanda Farm School ... ..	9	12	...	21
Queen's Mine School ... ..	7	5	1	13
Lonely Mine School ... ..	27	15	4	46
Plumtree Public School ... ..	165	...	1	166
Plumtree Village School ... ..	15	9	6	30
Umtali High School ... ..	124	98	40	262
Penhalonga Public School ... ..	7	15	4	26
Ruwaka Farm School ... ..	6	8	...	14
Johannesrust Farm School ... ..	10	11	...	21
Melsetter Public School ... ..	25	24	...	49
Springvale Farm School ... ..	1	3	...	4
Chipinga Farm School ... ..	22	12	...	34
The Meadows Farm School ... ..	8	5	1	14
Ravenswood Farm School ... ..	6	1	...	7
Avontuur Farm School ... ..	2	1	...	3
Mount Selinda Farm School ... ..	5	7	1	13
Victoria Public School ... ..	33	29	4	66
Victoria Plots School ... ..	13	6	5	24
Rurgwe Farm School ... ..	6	3	...	9
Morgenster Farm School ... ..	6	7	1	14
Gath's Mine School ... ..	6	10	...	16
Selukwe Public School ... ..	14	11	7	32
Shabani Mine School ... ..	16	13	...	29
Gatooma Public School ... ..	22	29	14	65
Eiffel Flats School ... ..	26	15	3	44
Hartley Public School ... ..	16	14	6	36
Que Que Public School ... ..	27	24	13	64
Totals ... ..	2,164	1,784	401	4,349

The number of schools visited in 1925 was nine more than the number visited this year, the difference being explained in the introductory remarks to this report.

**Children Examined.**—The total number of children examined during the year was 4,349, the largest number of children examined during one year since the inception of the Schools Medical Service. Of these—

- (a) 770 (17.70 per cent.) were recommended for medical or surgical treatment;
- (b) 284 (6.53 per cent.) were recommended for urgent dental treatment;
- (c) 1,329 (30.55 per cent.) had decayed teeth;
- (d) 72 (1.65 per cent.) were recommended for both medical and dental treatment.

*Class (a).*—Under this class the percentage has been reduced by .093 per cent., and in view of the fact that many of these cases had been previously examined and recommended for treatment, the percentage must be considered satisfactory.

*Classes (b) and (c).*—Here the percentage is slightly higher than in 1925, but it must be recorded that my visits to schools were generally made prior to the visit of the Schools Dental Surgeon. In cases where the Schools Dental Surgeon had preceded the Medical Inspector of Schools, a very different state of affairs existed, and it is to be presumed that a marked improvement will be recorded during the coming year.

*Class (d).*—A slight increase in the percentage under this heading is to be recorded, viz., .32 per cent., but the number of cases requiring treatment in this class remains relatively low. The number of children who were recommended for treatment compares very closely with the findings of 1925, but it must not be forgotten that included in this are many cases which have been recommended for treatment in the past, and which, up to the present, have not received the requisite treatment. Again, many of the defective children come under the heading of "Special" cases, which are examined annually, irrespective of age.

**Action Taken on Previous Recommendations.**—The numbers recommended for treatment in 1926 were as follows:—

Doctor ... ..	770
Dentist ... ..	284
Doctor and dentist ... ..	72

Total ... .. 1,126 (25.89 per cent.)

The numbers recommended for treatment in 1925 were 934 (26.57 per cent.). Action taken on these recommendations was found to be as follows:—

Vaccination ... ..	243
Dental treatment (by private dentist) ...	35
Medical ... ..	120
Surgical ... ..	90

Total ... .. 488

(52.24 per cent. of 1925 recommendations)

In addition, 587 children were treated by the Schools Dental Surgeon, details of which will be found under the report of the Schools Dental Surgeon.

I am glad to be able to report that in respect of the number of cases where action has been taken on the advice given by the Medical Inspector, the response has been very satisfactory. Eighty-six cases of tonsils and adenoids have been treated surgically, 30 cases of defective vision have been supplied with glasses, 243 successful vaccinations have been carried out, and 622 children have been dentally treated. It would certainly appear as if parents were realising more and more the importance of acting on the advice given at the time of medical inspection, and the general improvement in the health of the children throughout the Colony is evidence of this parental interest being maintained. Suffice

it to say that satisfactory progress is being made with regard to the treatment of children generally. An optimistic view may be safely expressed that even more satisfactory results will be recorded in the future.

#### Attendance of Parents.—

	1926.	1925.	1924.	1923.
Parents present ... ..	801 (18.41%)	771 (21.94%)	517 (28.45%)	479 (14.8%)
Parents absent ... ..	1,976 (45.43%)	1,788 (50.88%)	603 (33.18%)	1,281 (39.7%)
Parents represented ...	1,572 (36.14%)	955 (27.17%)	697 (38.35%)	1,460 (45.5%)

It will be seen from the above statistics that the attendance of parents at the time of medical examination shows a falling off during 1926, but the age group inspected this year comprised a greater number of children in residence at the various boarding schools, where the parent or guardian is represented by the principal. The homes of residential children being, as a rule, situated a considerable distance from the school, it naturally follows that the majority of parents are not in a position to attend the medical inspection, yet I am convinced that there is a large percentage of parents who are either too busily engaged in private occupations or who prefer to await the usual advice form or some written statement from the Medical Inspector with regard to their children. This is borne out by the fact that the Medical Inspector is inundated with letters from parents, asking for a medical report on their children. It is obviously impossible to send individual reports to parents, unless the children are found to be suffering from one or other condition requiring medical, surgical or dental treatment. Undoubtedly there is room for improvement as far as parental attendance is concerned.

**Clothing.**—During the inspection of 1926, 15 cases were found in which clothing was faulty. In spite of recommendations made in the past with regard to the type of garment suitable for both boys and girls, little or no attention has been paid to this very important subject, and it is to be hoped that the advice given during the year may give rise to a substantial improvement in the future. All things considered, clothing is generally found to be satisfactory as regards quality and quantity, but the fitting of garments, especially so far as the girls are concerned, is not receiving the consideration it merits.

**Footgear.**—The remarks made on footgear in the annual report for 1925 are applicable to the findings of 1926, and require no further comment.

**Headgear.**—Faulty headgear is the rule rather than the exception. I think much might be done by the principals and teachers, who should instruct parents on this subject. The deleterious effect of unsuitable headgear in a sub-tropical country like Southern Rhodesia is obvious. If children are exposed to the sun's rays and are unprotected by suitable headgear, they are liable to suffer from its effects both mentally and physically, and it is quite a common remark from teachers that such and such a child seems to be suffering from impairment of concentration and memory, which in many instances owes its origin to sun exposure, due largely to the lack of protective headgear.

**Nutrition.**—Of the 4,349 children examined, 4,072 (93.63 per cent.) were found to be normal, 178 (4.11 per cent.) were found where nutrition was below normal, 73 (1.65 per cent.) where nutrition was improved since last examination, and 17 (.39 per cent.) where malnutrition was definitely present. There were nine cases of adiposity. The above figures are satisfactory. As stated in the annual report for 1925, there are numerous factors to be considered in expressing an opinion on nutrition, but as the subject is such an important one, I deem it necessary to reiterate the statements made in last year's report, *i.e.*:—

“Malnutrition is not merely the consequence of want of proper food; such factors as want of sleep, overwork and fatigue play important parts in engendering it, and throughout Rhodesia undoubtedly the majority of cases of malnutrition are directly the outcome of intermittent malaria, septic sores, etc. Generally speaking, the boarder is of better physique and nutrition than the day scholar of the same age group. This perhaps is not so much due to the quality of the food as to the regular hours for meals, etc. In many instances the day scholar has an early hurried meal,

and immediately afterwards proceeds a long distance to school. Again, in many instances his dinner is irregular owing to the same fact, and often the child arrives home much later than is necessary, having loitered on the way. Variety in diet should be carefully studied, as undoubtedly variety whets the appetite and encourages the youngster to eat. Fruit and fresh vegetables should form essential parts of the child's diet. Milk, butter, eggs, fresh vegetables and fresh fruit should form the staple diet of the child, rather than meat, mealies and tea, which appear to form too often the regular meals of many children."

**Cleanliness and Condition of the Skin.**—There were 61 cases of uncleanness, as compared with 89 cases discovered in 1925. This would suggest an improvement in this respect, but it is doubtful whether this is the case. It must be remembered that a higher percentage of children examined this year were boarders, where regular bathing is the rule, and it cannot be said that the Medical Inspector's findings show a true state of affairs as far as cleanliness is concerned. As previously stated in other reports, it is impossible at the present juncture to institute surprise visits to schools, nor is it considered that they are warranted. The teaching of hygiene might with profit be augmented by personal supervision and inspection of the school child by the teachers, and all cases of uncleanness reported direct to the parent or guardian by the principal or teacher in charge. Were such a system in vogue throughout all the schools, I am of opinion that it would bear fruitful results. A state of cleanliness is most desirable, not only from the point of view of training, but were the standard of cleanliness higher, class-rooms would be more comfortable for the children and the teacher. These remarks apply more particularly to outlying and primary schools.

The following are details of children found to be suffering from skin diseases:—

Veld sores ... ..	7
Impetigo ... ..	4
Psoriasis ... ..	4
Ringworm ... ..	5
Warts ... ..	6
Acne ... ..	87
Scabies ... ..	31
Leucoderma ... ..	3
Seborrœa ... ..	1
Ichthyosis ... ..	3
Eczema ... ..	2
Furunculosis (boils) ... ..	6
Leukoplakia ... ..	2
Pock-marked ... ..	3
Verminous ... ..	9

**Dental Diseases and Defects.**—Of the 4,349 children examined—

- 1,045 (24.02 per cent.) were found to have less than four decayed teeth;
- 284 (6.53 per cent.) were found to have more than four decayed teeth;
- 39 (.89 per cent.) had irregular teeth;
- 10 (.22 per cent.) had deficient teeth;
- 31 (.71 per cent.) had neglected teeth;
- 13 (.29 per cent.) had artificial dentures;
- 955 (21.95 per cent.) had had dental treatment.

In all, 1,378 (31.68 per cent.) were found to require dental treatment, and 31 where instruction regarding dental hygiene was urgently required. The above statistics must be accepted as approximate only, as during routine medical examinations only those teeth which showed obvious caries were noted, and it will be seen from the report of the Schools Dental Surgeon that when examinations are conducted by a dentist, a very much higher percentage of cases have been recorded. This is due to the fact that there are many cavities situated in positions necessitating special knowledge and instruments for their detection. From reference to the special report by the Schools Dental Surgeon, it will be seen that the bulk of his work was confined to the smaller and more outlying

schools throughout the Territory, where up to the present no dental treatment has been available. Considering the scattered nature of these schools, the resulting numbers there recorded are satisfactory. The schools have been visited by the Dental Surgeon in the order of their urgency, as far as was compatible with a systematic itinerary. At the present time there is only one Schools Dental Surgeon, and on this account it will be a considerable time before all the schools in the Territory receive the dental attention they require, but once having completed a circuit of the schools, the second visit should be of shorter duration; and consequently the number of schools visited by him in the future will be increased and the work expedited.

**Ear Diseases and Defects of Hearing.**—There were 57 cases of organic ear disease. Of these, 14 were found to be suffering from active otitis media, and were recommended for surgical treatment. There were 40 cases which showed perforation of the tympanic membrane, but as these were quiescent, no further treatment was recommended.

**Organic.—Otitis Media—**

Right ear (active) ... ..	6
Left ear (active) ... ..	5
Right and left ears (active) ... ..	3
Right ear (not active) ... ..	15
Left ear (not active) ... ..	9
Right and left ears (not active) ... ..	16
Oto sclerosis (right) ... ..	1
Oto sclerosis (right and left) ... ..	2

**Functional.**—Due to occlusion of external meatus by accumulation of cerumen (wax)—

Right ear ... ..	50
Left ear ... ..	40
Right and left ears ... ..	58
<b>Total ... ..</b>	<b>148</b>

These functional cases were either treated, at the time of examination, by the Medical Inspector of Schools, or recommended for treatment by their own medical practitioner.

There were 14 cases of defective hearing which are not included in the above defects; these were due to such causes as chronic nasal and eustachian catarrh, nerve deafness and oto sclerosis.

The chief cause of deafness is due to old inflammation of the middle ear, enlarged tonsils and adenoids, and accumulation of wax, and in quite a large number of cases, if the treatment recommended is carried out, the hearing will be restored or much improved. It is most important that early treatment be carried out if incurable deafness is to be prevented.

**Throat and Nose Defects.**—Of the 4,349 children examined, there were 1,180 (27.13 per cent.) cases defective in this respect, as compared with—

25.29 per cent. in 1925
24.33 per cent. in 1924
25.78 per cent. in 1923

Of this number, 277 (23.47 per cent.) were recommended for operation, the remainder for treatment other than operative.

The following table shows the statistical tonsillar defects:—

Right and left tonsils markedly enlarged ... ..	254
Right tonsil markedly enlarged ... ..	53
Left tonsil markedly enlarged ... ..	28
Right and left tonsils slightly enlarged ... ..	595
Right tonsil slightly enlarged ... ..	141
Left tonsil slightly enlarged ... ..	44
Right tonsil markedly and left tonsil slightly enlarged ...	15
Left tonsil markedly and right tonsil slightly enlarged ...	16

Adenoids.—The number of children found to be suffering from this disease was 34. (These are included in the total of 1,180 under "Throat and Nose Defects.")

Other Diseases and Defects of the Throat and Nose.—

Adenoid facies ... ..	8
Mouth breathers ... ..	124

Palates—

High and narrow ... ..	23
High ... ..	17
Narrow ... ..	1
Cleft (one requiring further operation) ... ..	3
Complete hare lip and cleft palate ... ..	1

Uvula—

Bifid ... ..	13
Elongated ... ..	3

Other Defects—

Deflected septum ... ..	4
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Enlarged Glands—

Submaxillary ... ..	2,530 (58.17 per cent.)	
Tonsillar ... ..	375 ( 8.62 per cent.)	
Cervical ... ..	54 ( 1.24 per cent.)	
Inguinal ... ..	454	(boys only)
Thyroid ... ..	1	

Tonsils and Adenoids.—The number of children who were dealt with surgically (tonsils and adenoids removed) during the year 1926 was 86, of which a high percentage were children residing in outlying districts who were brought into the larger centres and treated at Government expense. With the introduction of free treatment in the case of children of indigent parents much has already been done to rectify these defects, and this concession is being made use of to the great benefit of the children concerned. During the year under review an endeavour has been made to emphasise the necessity for operative treatment, in the case of enlarged tonsils and adenoids, by sending advice forms to the parents, augmented by marginal notes pointing out the deleterious results which may accrue if the pathological condition is not attended to with as little delay as possible. In post-operative cases it is sometimes found that the operative technique has been somewhat faulty. In such cases parents have been requested to again bring the child to the surgeon who has performed the operation, in order that he may be able to remove any portion of tonsillar or adenoid tissue which he may have inadvertently overlooked at the time of the first operation. It is absolutely essential that children should pay a second visit to the surgeon within a reasonable period after the operation, and that breathing exercises should be faithfully carried out subsequent to the operation; for without this, adenoids frequently recur.

Mouth Breathers.—The number of such cases was found to be 124. In the majority of these nasal obstruction was present in the form of tonsils or adenoids, and with their successful removal the defect should automatically be cured, providing again that suitable breathing exercises are religiously carried out.

Palates.—Reference to the statistical list of abnormal palates will show at a glance the percentage of such defects. The condition is by no means a serious one, excepting that in certain instances the speech is deleteriously affected by such anatomical abnormalities. Unfortunately, excepting in the case of cleft palate, operative interference is of little or no avail, and in these cases, unless the operation is performed at an early age, the results are by no means gratifying.

Defective Articulation.—Thirty-eight cases of defective articulation are recorded. The following table shows the varieties of this defect at a glance:—

Speech nasal, and lisp ... ..	11
Slow of speech ... ..	2
Hoarse ... ..	9
Stammerers ... ..	16

Comment on the above is unnecessary. It need only be added that in the majority of instances stammerers are receiving such consideration and treatment

as is available at the various schools where they are in attendance. Stammering is a functional defect, generally found in nervous children. Instructions have been given to the principal or teacher to supervise these children in order that there may be no aggravation of their condition or that their inherent sensitiveness with regard to their defect may not become exaggerated by inconsiderate treatment by their schoolfellows. Such children require special attention. They should be encouraged in the belief that their condition is an easy one to cure. If the teacher can gain their confidence, he or she will, in the majority of cases, be compensated by obtaining much success in the curing of such cases.

**Defective Vision and Eye Strain.**—The total number of children examined as regards their vision was 4,145, of whom 290 (6.99 per cent.) were found to be suffering from defective vision, squint, etc. Of the above number, 149 have already been provided with glasses, of which 112 are satisfactory. The remaining 37 were recommended for re-examination and provision of suitable glasses. Vision testing was carried out in the usual way by the use of "Snellin's Test Type," etc. Attention is again drawn to the fact that a great number of the younger children do not appear to receive teaching in the recognition of capital letters, which is so essential from a diagnostic point of view. The testing by symbols and signs is undoubtedly not so reliable as the letter testing.

The following external eye diseases were discovered:—

Conjunctivitis (simple) ... ..	996
Blepharitis ... ..	7
Conjunctivitis and blepharitis ... ..	50
	<hr/>
	1,053 (24.21%)

Strabismus (Squint):—

Right internal strabismus ... ..	10
Slight right internal strabismus ... ..	24
Left internal strabismus ... ..	13
Slight left internal strabismus ... ..	15
Right external strabismus ... ..	5
Slight right external strabismus ... ..	2
Left external strabismus ... ..	2
Slight variable internal strabismus ... ..	4
Variable external strabismus ... ..	1
Slight variable external strabismus ... ..	2
	<hr/>
	78 (1.79%)

In all cases of defective vision, squint or other abnormality, the parent or guardian was notified; prescriptions for external eye disease, where necessary, were given at the time of medical examination to the parent or guardian, with instructions how to apply such treatment.

**Unusual Cases, plus Cases of Defective Vision due to Mechanical Interference:**—

Dense opacities (cornea) ... ..	4
Ptosis right and left (congenital) ... ..	1
Ptosis left eyelid (congenital) ... ..	1
Trachoma ... ..	2
Traumatic cataract ... ..	3
Injury, right eye; foreign body in cornea ... ..	1
Old injury, right upper eyelid ... ..	1
Entropion ... ..	1
Exophthalmos ... ..	2
Right eye artificial ... ..	2
Marked lateral nystagmus ... ..	2
Corneal ulcer (active) ... ..	1
Iridectomy, right eye ... ..	1
Cyst, left eyelid ... ..	1
Old injury, right eye; ant. synechiæ ... ..	2
Old injury, right eye; occluded pupil ... ..	1
Irides, different colours ... ..	1
Pterigium ... ..	1

Many of the above cases were referred for treatment.

The percentage of eye defects amongst the children is by no means large. It is generally found that the younger children, about six or seven years of age, show a higher percentage of defects. This is accounted for by the fact that the infant has normally a hypermetropic, or "far-sighted" eye, which eye is shorter in its antero-posterior direction than the normal eye; but as the child grows older the eye lengthens until it becomes normal in size. These cases are always relieved by the temporary provision of suitable lenses. In the case of myopic or short-sighted eyes, the eye is longer in its antero-posterior direction than a normal eye. The latter condition is more serious than the first condition; school work tends to aggravate the condition, especially reading, writing or sewing. All cases of short sight require correction by suitable lenses.

Eye-strain is rather frequent amongst the older boys and girls, who work for longer hours and have more home-work to do, which is often done at night time by an inefficient light, often so placed as to cause shadows on the book. Glare, the flicker of the bioscope, etc., all play a part in producing eye-strain. The prevention of defects of vision has been dealt with in past reports. Efficient supervision is at all times important. Younger children should not be taught sewing. Their reading should be from large print, and writing on a large scale. Pen and black ink are better than pencil. A distinct marking gives a better contrast and leads to less eye-strain. Slates should be abolished, because the writing thereon is very indistinct. Sewing and book-reading undoubtedly cause more eye-strain than any other form of visual concentration. It is advantageous to have frequent periods of rest for the eyes, allowing the child to look away from the work, and frequent breaks, when the child can participate in out-door exercise. Home-work should be very limited. Desks are now receiving the consideration they merit, and will in future be of correct size and shape, allowing the child to adopt a suitable position. The lighting of day schools and preparation rooms has been improved generally, and many detailed architectural alterations and improvements have been carried out in existing and new schools. Principals and teachers are combining in an endeavour to reduce eye-strain amongst the children by carrying out the instructions given in individual cases, as well as supervising all known cases of defective vision. A big endeavour is being made to reduce the causes of eye-strain to a minimum. In the case of squinters, advice to parents with a view to treatment is given in every instance. The importance of early correction by suitable glasses cannot be too strongly emphasised, and the squinting eye educated by covering up the good, or non-squinting eye for definite daily periods. There are at present many cases under treatment, where satisfactory progress is being made.

**Heart Disease and Disorders of Circulation.**—The following will show the divisions in which I have placed the various conditions of the heart:—

Organic ... ..	25
Functional ... ..	696
Normal ... ..	3,628

I give the following explanatory details in relation to the above table:—

**Organic—**

Mitral stenosis ... ..	1
Mitral incompetency ... ..	13
Mitral stenosis and incompetency ... ..	5
Cardiac dilatation ... ..	6

**Functional—**

Tachycardia (rapid heart) ... ..	18
Brachycardia (slow heart) ... ..	1
Anæmic and malarial ... ..	427
Nervous ... ..	5
Arrhythmia ... ..	63
Functional bruits and murmurs ... ..	182

From the above tables it will be seen that the findings under this heading conform closely to those in past years. The number of cases of organic heart disease is small. Functional heart conditions are not common, and are not of

great importance. The majority re-act to treatment of the causative condition, and to graduated exercises given in such a way as to cause no undue stress or discomfort.

Heart diseases and defects have been dealt with very fully in the reports of previous years. The causation, clinical features and prognosis have all been discussed; all organic cases are under strict medical supervision, and in the case of functional disorders, the principal or teacher has been instructed with regard to the supervision of exercises, games, etc., so that no undue strain may be allowed.

#### **Lung Diseases.—**

##### **Tuberculosis—**

Glands tuberculosis neck ... ..	4
History of tubercular lung disease ... ..	10
History of tubercular hip disease ... ..	1
Death from tuberculosis of the spine in 1925 ...	1

Tuberculosis is, fortunately, rare amongst the children of Rhodesia, and all children who are found on examination to have a history of tubercular infection are kept under medical supervision by the Schools Medical Officer, placed on the "following-up" list, and examined annually by the Medical Inspector of Schools. One case of active tuberculosis was excluded from school during the year.

Empyemas.—Two cases, showing scars of operation.

Pleurisy.—Five.

##### **Bronchitis and Bronchial Catarrh.—**

Bronchitis ... ..	20
Bronchial catarrh ... ..	22
Asthma ... ..	2
Bronchial asthma ... ..	1

#### **Flat Chests, Poor Expansion, Deformities, etc.—**

Flat chests and poor expansion ... ..	971 (22.32%)
Pigeon chests ... ..	25 ( 0.57%)
Sunken sternum ... ..	17 ( 0.39%)
Irregular thorax ... ..	7 ( 0.16%)
Left dorsal scoliosis ... ..	149 ( 3.42%)
Right dorsal scoliosis ... ..	34 ( 0.78%)
Low dorsal scoliosis (right or left) ... ..	13 ( 0.29%)
Kyphosis ... ..	375 ( 8.62%)
Winged scapulæ ... ..	32 ( 0.73%)
Lordosis ... ..	8 ( 0.18%)
Lumbar scoliosis ... ..	16 ( 0.36%)
Genu valgum ... ..	61 ( 1.40%)
Pes planus ... ..	17 ( 0.39%)
Rickets, chest ... ..	8 ( 0.18%)
Expansion good where previously poor ... ..	36
Kyphosis and scoliosis corrected ... ..	24

Under this heading comes the vexed question of physical training, for we are still without a systematised programme of physical training for school children. The two chief forms in which the essential exercises may be carried out are—

- (a) formal systematic exercises, carried out with or without apparatus, under the guidance and instruction of a qualified physical trainer;
- (b) sports, games, etc., under a games master or mistress.

The whole subject is now under consideration of the Government, and it is to be hoped that in next year's report progress may be recorded on a well organised and firmly established system.

**Malaria, Blackwater Fever and Enlargement of the Spleen.—**(a) Malaria.—Of the 4,349 children examined, 2,537 (58.33 per cent.) had a malarial history,

as compared with 60.61 per cent. in 1925, 51.07 per cent. in 1924, 60.90 per cent. in 1923 and 55 per cent. in 1922. An endeavour has been made to obtain figures which would show the geographical incidence of the disease amongst school children throughout the Territory. Complete and accurate information was difficult, and in many instances impossible to elucidate. The total number of cases where reliable information was obtainable is 2,537, and in the case of the remaining 1,812 children examined, no accurate data could be furnished by either parent, guardian or child. The percentage of cases where a malarial history was obtained is high, and varies but little from the findings of previous years. In 1926 there is a reduction in the numbers in certain areas, which may be due to the combined instruction and teaching of hygiene in the schools and the lectures given to parents by the Medical Inspector of Schools. In addition, the Public Health Department has issued supplies of quinine free of charge to children in areas where the parent or guardian has given proof of indigency. The quinine in such cases is issued to the principal of the school, who in turn administers the requisite daily dose to each child whose name appears on the malarial list.

It will be noted, on reviewing previous annual reports, that in years prior to 1925 cases recorded are reduced in number. This cannot be accepted as accurate. Such, in the face of the notifications of malarial infection made to the Public Health Department, definitely proves that the memory for past illness is much impaired. It must be remembered that the statistical records are based to a great extent on data obtained from periods prior to the introduction of anti-malarial teaching under the heading of hygiene in the schools throughout the Territory, and it would seem not over-optimistic to anticipate some improvement in the malarial incidence from year to year. Many improvements have been carried out in existing schools with the object of reducing mosquito breeding places by the provision of adequate netting at the school hostels and the compulsory use of mosquito nets for all boarders. A tribute must be paid to the parents who have done in the past and are still doing much in helping to prevent the disease by every possible method; at the same time considerable carelessness is still displayed by many settlers in outside districts in the choice of a suitable site for their houses, and by the obvious neglect of the application of recognised anti-malarial methods. Such neglect of reasonable precautions re-acts deleteriously, not only on the individual, but on the country as a whole, and it cannot be too strongly emphasised that efforts should be made by communities to combat the malarial carrier by eliminating its breeding-places and preventing as far as possible its contiguity with individuals. Malaria is a preventable disease, and sufferers have, in most cases, only themselves to blame; and, moreover, are a danger, not only to themselves, but, being reservoirs of malarial parasites, also to others.

**Blackwater Fever.**—Fifty-one children had a definite history of blackwater fever. Of these—

two had a history of two attacks;  
four had a history of three attacks;  
one had a history of four attacks;  
three had a history of seven attacks.

Two deaths from blackwater fever were recorded by me during the year, occurring in 1926.

**Enlargement of the Spleen.**—The following table shows the number of children suffering from enlargement of the spleen:—

	1926	1925
Spleen slightly enlarged ... ..	291	371
Spleen markedly enlarged ... ..	230	286
Spleen reaching almost to umbilicus ... ..	41	59
Spleen filling almost half the abdomen ... ..	20	40
Spleen tender ... ..	6	...
	588 (13.52%)	753

Comparing tables 1926 with 1925, it will be seen that there is a decided improvement in spleen indices, which must be attributed to more thorough treatment.

**Bilharzia.**—Forty-two boys were found to be suffering from this disease. The ætiology, clinical features and treatment are now so well known that it is considered unnecessary to reiterate all that has been said in the past. It is sufficient to say that instructions are issued to all boys attending the various schools about the danger of contracting this disease through coming in contact with infected water.

**Infectious and Contagious Diseases.**—The following table shows the number of children who have suffered from infectious and contagious diseases:—

Measles ... ..	2,481
Whooping cough ... ..	2,108
Chicken-pox ... ..	1,776
Scarlet fever ... ..	172
Diphtheria ... ..	44
Mumps ... ..	685
Enteric fever ... ..	82
Paratyphoid ... ..	6
Dysentery ... ..	103
Pneumonia ... ..	93
Broncho-pneumonia ... ..	7
Small-pox ... ..	8
Influenza ... ..	32
German measles ... ..	9
Erysipelas ... ..	1
Scarlatina ... ..	1
Anthrax ... ..	1
Infantile paralysis ... ..	11

The above figures differ somewhat from those of last year. Attention must be drawn to the fact that the age group, comprising as it does the senior children, accounts for this fact, as they have had more opportunities of coming in contact with infectious diseases than the children of a smaller age group. During 1926 an exceptionally high incidence of measles was notified to the Public Health Department, although not an epidemic of a very serious nature. As stated in previous reports, it is to be expected that as the number of children in attendance at the schools increases, it is probable that epidemics of infectious diseases will annually become more prevalent. Every precaution is being taken in order that the spread of infectious diseases shall be limited as much as possible. The majority of these diseases afford a certain amount of immunity from future infection; it is therefore inadvisable that schools should be closed excepting in the case of a very serious outbreak. The system of class closure has been adopted, and has provided good results.

**Small-Pox and Vaccination.**—Of the 4,349 children examined, 3,871 (89.00 per cent.) were found to have been successfully vaccinated. (Keloid scars, 31.) Four hundred and seventy-eight (10.99 per cent.) were found to be unvaccinated or to have no visible vaccination marks.

It will be seen, on comparison with the figures of 1925, that the percentage of vaccinated children shows a slight improvement. It will also be seen that 243 successful vaccinations were carried out in 1926; and it is gratifying to be able to report that the number of conscientious objectors was not large. The importance of vaccination cannot be over-estimated, and it is most desirable that in a country like Rhodesia, where the risks of contracting small-pox through the native population are considerable, an endeavour be made to keep the standard of vaccination as high as possible. It is to be regretted that any such clause which allows parents to object to vaccination of their children on conscientious grounds should exist.

## Other Diseases and Defects.—

Rheumatism ... ..	43
Rheumatic fever ... ..	10
Chorea ... ..	9
Septic endocarditis ... ..	1
Appendicitis ... ..	50
Appendisectomy ... ..	42
Colitis ... ..	3
Enteritis ... ..	1
Eneuresis ... ..	15
Nephritis ... ..	8
Albuminuria ... ..	1
Convulsions ... ..	4
Sunstroke ... ..	3
Meningitis, influenzal (1 death) ... ..	2
Cerebro-spinal meningitis ... ..	2
Epilepsy ... ..	5
Malarial coma ... ..	4
Intermittent fever ... ..	1
Tetanus ... ..	2
Synovitis knee ... ..	3
Cestoda (tape worm) ... ..	3
Thread worms ... ..	2
Jaundice ... ..	6
Enteric leg ... ..	1
Varicose veins ... ..	3
Tracheitis ... ..	1
Persistent thyro-glossal duct ... ..	1
Moles ... ..	8
Cysts ... ..	2
Sprained ankle ... ..	1
Old injury, right elbow; hyperextension ... ..	1
Old injury, lower end humerus ... ..	1
Injury, right ulnar nerve; partial muscular wasting, hand ... ..	1
Facial irregularity ... ..	4
Right ear, congenital absence of auricular opening ... ..	1
Terminal phalanges, left hand missing ... ..	1
Slight deformity, right scapula ... ..	1
Deformity, left hand; double thumb ... ..	1
Deformed pinna, left ear; old injury ... ..	1
Pes equinus ... ..	1
Right club foot ... ..	1
Small tumour, right breast ... ..	1
Large lipoma, lumbar region ... ..	1
Small tumour, tongue ... ..	1
Neurosis, left arm ... ..	1
Phymosis ... ..	383
Gynæmastica ... ..	2
Microcephalic head ... ..	1
Mongolian type ... ..	2

The above table, comprising as it does a variety of mixed diseases and defects, requires no comment. Conditions generally are amenable to treatment, and in the majority of cases lead to but few deleterious effects.

## Fractures.—

Radius and ulna ... ..	4
Radius ... ..	2
Femur (old) ... ..	1
Mid 1/3rd leg, old ... ..	1
Index finger, right hand ... ..	1

## Operations.—

Epispadias (several operations) ... ..	1
Operation for intra-abdominal abscess ... ..	1
Operation for liver abscess ... ..	1
Operation for nævus, left shoulder ... ..	1
Operation for glands, neck ... ..	5
Operation for cleft palate ... ..	1
Operation for fracture, plated right forearm ...	1
Mastoid, left ear ... ..	1
Amputation, index finger left hand ... ..	1
Hare lip ... ..	3
Intususception ... ..	4
Removal of nævus, bulbar region ... ..	1
Operation for deformities right and left ankles and left knee ... ..	1
Operation for deformed left foot ... ..	1
Plated fracture, elbow ... ..	1
Decompression, skull ... ..	1
Amputation, left arm, middle 1/3rd ... ..	1

## Burns and Scalds.—

Burns ... ..	5
Scalds ... ..	5

## Hernias.—

Right inguinal ... ..	1
Left inguinal ... ..	2
Ventral ... ..	2
Umbilical ... ..	1

## Herniotomy.—

Right inguinal ... ..	12
Left inguinal ... ..	9
Right and left inguinal ... ..	1
Bubonocele ... ..	11
Varicocele ... ..	14
Hydrocele ... ..	1
Testicular atrophy (right) ... ..	5
Testicular atrophy (left) ... ..	2
Undescended testicle (right) ... ..	4
Undescended testicle (left) ... ..	2
Undescended testicle (right and left) ... ..	2

## Mentality.—

Dull ... ..	43
Backward ... ..	13
Dull and backward ... ..	2
Mentally deficient ... ..	6

The above table records only those cases obvious at the time of medical examination. Special investigation was made into the matter of children who were mentally deficient, those whose mentality was below normal, and those who were dull or dull and backward, with a view to obtaining statistics from which some conclusion could be drawn as to whether special schools for these should be provided or not. This will be dealt with at a future date.

H. V. GATCHELL,

Medical Inspector of Schools,

## Pasteur Institute and Public Health Laboratory.

### REPORT FOR THE YEAR 1926.

**Staff.**—I regret to report the tragic death of Dr. Haworth, who was killed in a collision with a motor car in March, the Laboratory staff thus losing a valued colleague.

On the routine side the staff consists of the Bacteriologist, Senior Assistant (Miss E. M. Truter), Apprentice Assistant (Mr. A. J. Ledger, vice Mr. Searles resigned), Typist (Miss G. Morgan) and two native Laboratory boys. A Chemist is being appointed to do public health work and research.

On the research side are the Research Fellow (Dr. Ross), Junior Assistant (Miss F. E. Robinson, vice Mr. Titman resigned), and one native Laboratory boy; the Entomologist (Mr. Leeson, vice Dr. Haworth) and four native mosquito collectors.

Increase of staff will follow as work expands, and a Pathologist will soon be necessary for routine examinations and also research.

**General.**—During the year an upper storey was added, providing nine additional rooms for entomology, chemistry, pathology and medico-legal work, museum, library, dark room and store-room. These alterations involved undesirable conditions of dirt, noise and overcrowding lasting for six months, and I have to thank the staff generally for carrying on the work of the Laboratory without omission or mistake.

### PASTEUR INSTITUTE.

We have had no patients from Southern Rhodesia since 1913, but as cases occur outside this Colony the stock of virus has to be kept going, and courses of treatment are prepared throughout the year, so that they will be ready when required.

During the year ten courses of treatment were sent to Beira, two to Vryburg, one to Brandfort, three to Johannesburg, one to Livingstone, two to the local railway medical officer for patients from Northern Rhodesia and one to Blantyre; a total of 21 courses, the fees for which amounted to £110 5s., as opposed to £20 8s. in 1925.

### PUBLIC HEALTH LABORATORY.

#### I.—ANALYSIS OF WORK DONE.

**A. Research.**—Dr. Ross has reported separately on his work on blackwater and undulant fever, and Mr. Leeson is continuing the entomological survey of the Colony. Research was done by ourselves on undulant fever, the saturation test, pneumonia, diphtheria and syphilis, the results of which will be given later under their respective headings. In addition, post-mortem examinations are made on all cases of interest or of difficulty in diagnosis.

**B. Routine.**—The work continues to increase rapidly, the number of examinations for the past five years being as follows:—

	1922	1923	1924	1925	1926
Examinations ...	807	1,457	1,714	2,309	3,464

The fees for the above (gratuitous and otherwise) amounted to £1,527 0s. 3d. in 1926, as opposed to £1,031 5s. 9d. in 1925. The specimens sent came from the following localities:—

Southern Rhodesia: (1) Salisbury district ...	3,196
(2) Outside districts ...	265
Other Colonies ...	3

The following table shows the method employed in examinations of specimens:—

Bacteriological and Protozoological—

	1925	1926
Microscopical examinations ... ..	943	1,238
Agglutination tests ... ..	266	377
Preparation of vaccines ... ..	74	84
Decomplementising serum ... ..	1	3
Sigma re-action ... ..	94	164
Cultural examinations ... ..	258	358
Examination of water supplies ... ..	14	31
Examination of milk supplies ... ..	2	0
Examination of sewage ... ..	0	1
Antiseptic co-efficients ... ..	1	2
Biologic tests ... ..	6	3
Helminthological (worm diseases)—		
Microscopical examinations ... ..	64	122
Entomological—		
Identification of insects ... ..	0	1
Pathological—		
Microscopical examinations ... ..	236	536
Sections of tumours, etc. ... ..	71	114
Post-mortem examinations ... ..	22	22
Chemical—		
Tests ... ..	135	338
Quantitative estimations ... ..	32	28
Biologic tests ... ..	0	5
Medico-Legal—		
Microscopic or chemical tests ... ..	95	36
Biologic tests ... ..	4	1
Miscellaneous—		
Preparation of rat specimens ... ..	1	0
Total ... ..	2,309	3,464

## II.—REMARKS ON DISEASES, Etc., DEALT WITH.

A. **Blackwater Fever.**—Dr. Ross has continued his researches into the biochemical and other aspects of this disease and has made a separate report.

B. **Malaria.**—Mr. Leeson has continued Dr. Haworth's work in making an entomological survey of the Colony, and four natives have been trained as collectors and stationed at Salisbury, Bindura and Shamva. Mr. Leeson is making a separate report.

During the year 715 examinations of blood smears were made by us, with 98 positives (as compared with 102 positives in 1925), 96 being malignant tertian, 1 benign tertian and 1 quartan.

They were distributed as follows:—

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Examination ...	37	32	76	110	120	76	40	40	37	41	46	60
Malignant tertian	3	1	17	20	38	12	3	3	...	...	...	...
Benign tertian ...	...	...	...	...	1	...	...	...	...	...	...	...
Quartan ...	...	...	...	...	...	...	...	1	...	...	...	...

C. **Undulant (Malta) Fever.**—Dr. Ross has investigated this disease during the year (see his report). Of 186 tests made by us, 22 gave positive results (compared with 38 positives in 1925). Some of these agglutinated *A. melitensis* more strongly than *A. abortus*, and *vice versa*, but absorption tests on seven

patients performed by Dr. Ross have confirmed previous results obtained by me, namely, that so far all cases of Rhodesian undulant fever investigated had been due to the organism of contagious abortion of cows.

In January we completed the study of the conditions causing the death of the organism in milk, cream and butter, the results being given in last year's report. In February and March work on the saturation test was continued, but there was difficulty in obtaining sufficient good emulsions which are necessary for the test.

**D. Enteric Fevers.**—Two hundred and three examinations gave 43 positive results (as compared with 18 positives last year). Of these, 29 were typhoid (distributed fairly evenly throughout the year), 9 were paratyphoid B (between July and November) and 5 agglutinated typhoid and paratyphoid B equally strongly (between October and December).

**E. Fevers of Doubtful Causation.**—We often have cases which give negative results when tested for the usual organisms, and the possible causes have been dealt with in previous reports.

An interesting series of cases occurred early in the year which resembled typhus, but three examinations gave only one very weak positive result. The cases were studied further by Dr. Ross, who considers that they are not true typhus fever, but a separate disease, probably due to ultra-microscopic organisms.

**F. Dysentery (Bacillary and Amœbic).**—One hundred and sixteen examinations for amœbæ gave 13 positive results (compared with 13 in 1925). It is not easy always to demonstrate amœbæ, but allowing for this I still think that bacillary dysentery is commoner than the amœbic form.

**G. Pneumonia and Pneumococcal Infections.**—A good many cases occurred during my absence on leave. Several cases were studied and appeared to be mixed infections with *B. influenza* and pneumococci chiefly, with streptococci and staphylococci later on. Cultures of pneumococci were sent to Johannesburg for typing, but they were, unfortunately, not recoverable from the cultures on arrival.

**H. Influenza.**—Apart from the cases of mixed infections, no large epidemic occurred. The bacillus is found in other respiratory diseases with some frequency.

**I. Tuberculosis.**—One hundred and ninety examinations gave 40 positives (compared with 36 in 1925). The disease does not appear to be increasing more rapidly than importation of fresh cases would account for.

**J. Leprosy.**—Twenty-three examinations gave 4 positive results (3 natives and 1 coloured).

**K. Diphtheria.**—One hundred and thirty-five examinations gave 12 positives (compared with 15 in 1925). Three cases simulating diphtheria were found to be infected with Vincent's organisms. With a view to ascertaining the necessity of the Schick test (for susceptibility to diphtheria) a series of 38 schoolboys was examined by me with diphtheria toxin obtained from Capetown. Six of them gave positive results (a percentage of about 16). The toxin was not very fresh and the positives were not strongly marked.

**L. Venereal Diseases.**—(a) Syphilis.—One hundred and seventy-four examinations gave 42 positive results (compared with 33 positives in 1925 and 22 positives in 1924). A series of 200 natives (unselected and not suspected of syphilis) was examined by me, with the following results:—

	Number examined.	Positive.	Percentage.
Gaol natives ... ..	100	22	22
B.S.A.N.P. ... ..	50	6	12
Native hospital ... ..	50	5	10
Total ... ..	200	33	16.5

These results indicate that syphilis is fairly common among the natives. Recruits for the police are now being examined specially as a matter of routine.

(b) **Conorrhœa.**—One hundred examinations gave 30 positive results (compared with 7 positive and 2 doubtful cases in 1925).

**M. Schistosomiasis (Bilharzia).**—One hundred and two examinations gave 33 positives (compared with 18 in 1925). The disease is known to be common among natives, and research into methods of prevention is needed.

**N. Other Worm Infections.**—Two specimens were sent from Melsetter, so that the existence of hookworm disease there could be verified. Thirty-three examinations were made for other worm infections, such as tapeworm, ascaris and oxyuris. There were no cases of filarial infection.

**O. Trypanosomiasis.**—Five negative examinations.

**P. Leishmaniasis.**—One case (European) of *L. tropica* (tropical sore) was found. The patient contracted the disease in India.

**Q. Ringworm.**—Two cases of scalp and four cases of body ringworm.

**R. Diabetes.**—Urine was examined 24 times in connection with insulin treatment.

**S. Pathology.**—Five hundred and thirty-six microscopical examinations, 114 sections of tumours, etc., and 22 post-mortems were made. There were 22 malignant and 17 non-malignant growths, 3 cystic conditions, 39 inflammatory conditions, 1 leprosy, 5 tuberculosis, 4 enteric, 1 syphilis, 1 jaundice, 2 ruptured spleens, 1 amoebic liver abscess, 1 case of burns with duodenal ulcers, 1 lysol poisoning, 3 cyanide poisonings, 1 fatty degeneration, 2 pneumonia, 1 Hodgkin's disease, 2 goitres and 1 appendicitis due to bilharzia infection.

**T. Water, Milk, Food, etc.**—The Salisbury Municipality water supply is examined every month and has given very good results. In addition, 6 examinations were made of the Government House well, 2 of the swimming baths, 2 of private supplies, 2 of the Prince Edward School water and 1 of the well at the Medical Director's office. Six samples of the Bulawayo swimming bath water were sent. A case of suspected poison in milk was examined. Two samples of flour causing ropy bread were examined for *B. mesentericus*. A specimen of sewage was examined to test the power of antiseptic added. A test of the effect of fumigation with formalin was made. Two estimations of antiseptic co-efficients were made.

**U. Chemical.**—Three hundred and thirty-eight tests (135 in 1925), 28 quantitative estimations (32 in 1925) and 5 biologic tests (for poison) were made.

**V. Medico-Legal.**—Thirty-six tests for blood and other stains were made and 1 biologic test (for human blood).

### III.—STATEMENT OF FEES EARNED.

The fees classed below as "Government" represent work done for patients in hospital, police, paupers and natives. "Private" represents work done for private patients outside hospital. More gratuitous work is done every year, and a good many private fees are not recoverable.

#### Pasteur Institute—

	1925.	1926.
Private ... ..	£20 8 0	£110 5 0
Government ... ..	...	...
Total ... ..	£20 8 0	£110 5 0

#### Public Health Laboratory—

Private ... ..	£339 10 9	£427 3 3
Government ... ..	691 15 0	1,099 17 0
Total ... ..	£1,031 5 9	£1,527 0 3

#### Combined Totals—

Private ... ..	£359 18 9	£537 8 3
Government ... ..	691 15 0	1,099 17 0
Total ... ..	£1,051 13 9	£1,637 5 3

L. J. JOHN ORPEN,  
Government Bacteriologist.

## Report of Rhodesian Research Fellow.

Public Health Laboratory and Pasteur Institute,

North Avenue, Salisbury,

4th February, 1927.

The Medical Director,  
Salisbury.

Sir,

I have the honour to submit a report of the work done by me as Rhodesian Research Fellow for 1926. The primary object of medical research work in the Colony is the elucidation of the problems of blackwater fever, but work has also been conducted on undulant fever and on a pyrexial disease of unknown origin.

**Blackwater Fever.**—(a) Statistics.—The statistical data submitted are much more complete than last year, and thanks are due to the medical officers, whose co-operation has resulted in additional information being available. Notification of blackwater fever was made in 51 cases, and in all but 2 of these form 28 A was forwarded.

Number of cases ... ..	51
Number of deaths ... ..	14

### Seasonal Incidence—

January ... ..	4
February ... ..	2
March ... ..	6
April ... ..	10
May ... ..	6
June ... ..	4
July ... ..	8
August ... ..	3
September ... ..	2
October ... ..	2
November ... ..	1
December ... ..	2

### Incidence and Death according to Sex—

	Cases.	Deaths.
Males ... ..	42	11
Females ... ..	8	3

(In one case no information was received.)

### Incidence according to Age Group—

	Cases.
1—9 ... ..	3
10—19 ... ..	13
20—29 ... ..	16
30—39 ... ..	9
40—49 ... ..	6
50—59 ... ..	1
60 and over ... ..	1

There is no feature in the above statistics which calls for special note. The percentage death rate is 27.54, which approximates to the figure of 26.18 per cent. obtained in 1925. It is interesting to observe, however, that in 32 cases the attack was the first, in 12 cases there had been one previous attack, in 3 two, in 1 three, in 1 five, in 1 seven, while in 1 the number of attacks was not stated. Thus 37 per cent. this year, and 43 per cent. last year of cases were in people who had previously suffered from the disease. There would seem to be a susceptibility to the disease in certain people, but it is impossible at present to say what this is due to. One gains little information regarding the relationship

of quinine to the development of hæmoglobinuria. Practically all cases gave a history of recent quinine administration, but there was no case in which the quinine alone could be held responsible for the attack. In the fatal cases the duration of the illness and the actual cause of death demand comment. Particulars of these are available in 11 of the 14 fatal cases. Four cases who died after one day's illness and three who died after two days' can be classed as cases in which the degree of hæmolysis was so great that the patient died from primary shock. Of the remaining cases, one died on the 5th day, one on the 6th, one on the 11th and one on the 19th day.

In the first of these suppression of urine was responsible for the fatal issue, in the second and the third cardiac failure; while the last, a most refractory patient, who refused all treatment, died from toxæmia.

(b) Research Work.—The plan which has been followed in conducting research work on the subject has been to limit the investigation to certain problems at a time.

(a) Biochemical.—During the past year the biochemical aspect of the disease has been investigated, and as a result certain interesting results have emerged. One problem in particular has been to investigate the degree of hæmolysis in malignant tertian malaria and in blackwater and to endeavour to correlate the two. This has been done indirectly by means of the Van den Bergh test. It has been found that in both malaria and blackwater fever evidence of hæmolysis is present by the existence in the serum of an indirect positive re-action. The number of units present in malaria may vary from 1 to about 6. In blackwater fever the number of units is almost invariably above 6, and in cases in which the suppression exists figures as high as 59 have been obtained. The interesting fact, however, is that in two cases which had been diagnosed as acute malaria and in which the Van den Bergh test showed respectively 6.6 and 6.8 units, the urine when examined was found to contain traces of hæmoglobin. In ordinary circumstances these cases would not have been detected, but they were undoubtedly mild blackwater. This is of some importance, for it shows that hæmoglobinuria can occur in cases of malignant tertian malaria, so that the greater hæmolysis which occurs in blackwater fever may only be an ordinary malarial hæmolysis magnified by some unknown factor, and not a hæmolysis due to an entirely different agent.

As regards other findings, the degree to which kidney function is affected by the blocking of the renal tubules with inspissated hæmoglobin can be estimated by tests which estimate the non-protein nitrogen and urea content of the blood. This nitrogenous retention is seen in all cases in which suppression, complete or partial, is a feature, and in one case, which had complete anuria for over a week, the blood urea value obtained was 255 milligrammes urea N per 100 ccs. of blood. The concentration of the blood sugar and blood chlorides does not seem to be affected by the disease.

(b) Serological.—The typing of the bloods of patients has not shown that any particular group is more susceptible than another. The number of cases tested is, of course, small, but no result of value has emerged. Investigation of serum of blackwater fever patients with a view to demonstrating an increased hæmolysin content has not given definite results, but the investigation is being continued. The fragility of the red cells in malarial and blackwater fever patients has been also examined by a new and more accurate technique. The results which have so far been obtained do not show any increased fragility of the erythrocytes in the circulating blood. In this connection, however, the recent work of Barcroft on the spleen must be taken into account. The spleen may contain as much as 1-6th of the total amount of blood, and the proportion of stored corpuscles is higher, since no plasma is present. His idea is that the spleen forms a differential filter, the more fragile corpuscles being filtered out. Thus an increased fragility may not manifest itself by any change in the fragility of the circulating corpuscles. This fact is of importance, since it may quite well be that the hæmolysis which precedes hæmoglobinuria may occur, not in the general circulation, but in the spleen, and warrants greater attention being given to that organ in the etiology of the disease.

Nocht and Kessler have found autohaemolysins in spleen extract, but their exact nature is still indefinite.

(c) Bacteriological.—No organisms to which etiological importance can be attached have so far been found in the blood of cases of the disease. Streptococci have been found in the urine of many of the cases, but the present view which is taken is that they are due to contamination. In this connection the receipt of catheter specimens in sterile containers from officers observing cases would be appreciated.

(d) Therapeutic.—No new idea in treatment has been described during the past year.

It is interesting, however, to record the impressions of those medical officers who have employed caffeine sodio-benzoate as recommended by Facio and Rogas. It will be remembered that the drug was sent out to all medical officers in sterile solution, ready for use. Reports are to hand in fourteen cases and are distinctly unfavourable. Seven cases recovered and seven died, which death rate is much higher than in the cases which were not so treated. Granted that all were severe, this does not bear out the introducers' statement that it is of considerable value. It had no effect on suppression in several cases, and one case had a relapse while undergoing treatment, so that its anti-haemolytic value seems doubtful. Recent experiments on animals have shown that haemoglobin introduced in solution intravenously is excreted more easily in an alkaline urine. It is considered that acidity and high salt concentration lead to precipitation of the haemoglobin, and accordingly that the indication is to treat cases with a tendency to suppression with alkaline diuretics and transfusion of sodium bicarbonate. A recent case is reported where the administration of 150 grains of sodium bicarbonate in 20 ounces of distilled water, intravenously had good result in a patient with suppression. This line of treatment seems sound and should be thoroughly investigated.

(e) General.—The research department has been strengthened by the arrival of Mr. H. S. Leeson to take over the duties of the late Dr. W. A. Haworth, whose tragic death in a motor accident early in the year removed a most valuable and painstaking worker. Mr. Leeson reports separately on his work as Entomologist. In company with him a visit was paid to all blackwater areas, and plans were drawn up for an adequate mosquito survey of such districts.

I wish here to thank all those doctors and laymen who have been so ready to assist us in our work. There can be no doubt that all are determined to end the mosquito menace and the diseases, malaria and blackwater, which follow in its trail. There are no diseases in which the adage "prevention is better than cure" is more applicable than in these two. One is struck by the fact that blackwater patients as a class are "careless livers." By this I mean careless in regard to housing and food requirements, and perhaps over-confident in their estimation of their bodily strength and resistance against disease. An overworked, underfed body offers little resistance against attack, and a big advance would be made if for one thing fresh fruit, vegetables and other vitamin-containing foods were used to amplify the stomach-satisfying but body-im-poverishing tinned products which seem to form so large a part of the diet of the remoter inhabitants.

**Undulant Fever.**—The serological survey of this disease is now reaching completion. During the year the causal organism has been isolated from seven patients in hospital. All have been proved to be pathogenic members of the *alcaligenes* group, and on serological examination have been found to be identical with the organism causing contagious abortion in cattle. The importance of this finding is considerable. Recently American reports corroborate this result and there is no doubt that we must enlarge our ideas regarding the causation of undulant fever.

The treatment of the disease by mercurochrome has not been productive of spectacular results. Some cases seem to have derived benefit, but in the majority the course of the disease has not been influenced. It is extremely difficult, owing to the nature of the disease, to pass judgment on remedies of this kind, and perhaps the best verdict on the drug is not proven.

**Pseudo-Typhus.**—The occurrence early in the year of a pyrexial disease resembling typhus fever was of considerable interest. Cases occurred in the first two months in a series of patients between whom no connection could be traced. A disease of this nature, obviously differing from true typhus fever in cardinal features, has been described in other parts of Africa and Asia. The cause of the disease is probably ultra-microscopic, as ordinary bacterial investigations gave entirely negative results. The disease was not transmissible to laboratory animals and is probably due to some insect vector. No deaths resulted in the series of cases observed. Further investigations will be undertaken as cases arise.

**Publications.**—The following articles have been published during the year:

- (1) The Reticulo-endothelial System and Hæmolysin Production. British Journal of Experimental Pathology; December, 1926.
- (2) (In collaboration with Dr. G. H. Peall.) Icterus without Hæmoglobinuria after Quinine Treatment. British Medical Journal; 8th January, 1927.

GEO. R. ROSS,

Rhodesian Research Fellow,

London School of Hygiene and Tropical Medicine.

## Report of Research Entomologist.

8th February, 1927.

The Medical Director,  
Salisbury.  
Sir,

I have the honour to submit herewith report of work on mosquitoes and their connection with blackwater fever, commencing on the 1st September, 1926.

**General Scheme.**—In company with Dr. G. R. Ross, visits were made to those parts of the Colony where cases of blackwater fever had occurred, with the object of becoming acquainted with local conditions in such area and deciding on the most suitable localities from which to obtain supplies of mosquitoes.

It was decided to limit research at present to the study of species of anopheles only. A mosquito survey of the country was therefore commenced.

Two natives were engaged and trained to recognise and collect mosquitoes in all stages. They are now working in the districts about Bindura and Shamva respectively. Two others are now being trained and at present are collecting in the Salisbury area. They will proceed to their districts very shortly.

To enable collections to be made over as wide areas as possible simultaneously, Town and Village Management Boards have been asked to assist and have readily promised to do so. Mosquitoes should soon be arriving from all parts of the country, and the survey will materially assist in working out the following points:—

1. Distribution of species.
2. Seasonal prevalence.
3. Habits, life-cycle and breeding places.
4. Anopheline prevalence in relation to blackwater fever.

### Results of Work.—

#### 1. Areas visited, with Species Distribution.—

Bindura ... ..	Anopheles costalis.
	„ pretoriensis.
	„ squamosus.
Eiffel Flats ... ..	„ maculipalpis.
Marandellas ... ..	„ argenteolobatus.
	„ funestus.
Penhalonga ... ..	„ christyi.
	„ funestus.
	„ maculipalpis.
	„ pretoriensis.
Rusape ... ..	„ maculipalpis.
	„ pretoriensis.
Salisbury ... ..	„ cinereus.
	„ funestus.
	„ maculipalpis.
	„ pretoriensis.
	„ rufipes.
	„ squamosus.
Shamva ... ..	„ costalis.
	„ maculipalpis.
	„ pretoriensis.
	„ rufipes.
Umtali ... ..	„ funestus.
	„ maculipalpis.
	„ pretoriensis.
	„ rufipes.

2. Seasonal Prevalence.—The following table is a monthly record of species in the order of their appearance:—

	September.	October.	November.	December.
1.	<i>A. squamosus</i>	<i>A. squamosus</i>	<i>A. squamosus</i>	<i>A. squamosus</i>
2.	<i>A. pretoriensis</i>	<i>A. pretoriensis</i>	<i>A. pretoriensis</i>	<i>A. pretoriensis</i>
3.	<i>A. maculipalpis</i>	<i>A. maculipalpis</i>	<i>A. maculipalpis</i>	
4.	<i>A. funestus</i>	<i>A. funestus</i>	<i>A. funestus</i>	
5.		<i>A. argenteolobatus</i>		
6.		<i>A. rhodesiensis</i>		
7.		<i>A. rufipes</i>	<i>A. rufipes</i>	<i>A. rufipes</i>
8.			<i>A. christyi</i>	
			<i>A. cinereus</i>	
			<i>A. costalis</i>	<i>A. costalis</i>

3. Habits, Life-Cycle and Breeding Places.—All specimens collected have been preserved and all necessary particulars regarding time, date and location of capture recorded.

163 collections of larvæ examined.

160 collections of larvæ preserved.

233 adults collected.

500 adults bred in the Laboratory.

It is hoped that the present collection of mosquitoes will be considerably enlarged by material from every part of the country, by this means adding to our knowledge of the relation of these insects to blackwater fever.

H. S. LEESON,

Research Entomologist.

## Report of Schools Dental Surgeon.

Public Health Department,  
Salisbury, S. Rhodesia,  
21st January, 1927.

The Medical Director,  
Salisbury.

Sir,

I have the honour to submit my first annual report on the dental inspection and treatment of children in attendance at Government schools in the Colony of Southern Rhodesia.

The schools dental service was instituted in January, 1926, by the appointment of one dental surgeon, and has for its object the improvement of the dental condition of children attending Government schools in the Colony.

It is hoped that this object may be achieved by the regular inspection and treatment, where necessary, of the teeth of these children, supplemented by short addresses both to parents and children on the subject of oral hygiene.

**Type of Treatment.**—Treatment consisted of:—

- (1) Preservation of the carious teeth by simple filling in cases in which the nerve is not affected.
- (2) Root canal therapy in cases in which the pulp is diseased or it is considered desirable to remove it.
- (3) Extraction of such teeth as are too far diseased for restoration by filling.
- (4) Extraction of such teeth as may be necessary to ensure a regular dental arch and an efficient articulation.
- (5) Removal of other factors tending towards an irregular dentition, e.g., unduly prolonged frænum labiæ.
- (6) Removal of tartar by scaling.
- (7) Reduction of other inflammatory and septic conditions of the mouth.

**Consent of Parents.**—Parental consent has been obtained for every child treated. Circulars are issued to all parents advising them of the visit of the schools dental surgeon and asking for written consent to the inspection and treatment of their children in attendance at the school. In no case has a child been either inspected or treated when parents have failed to furnish this consent. Children who thus received treatment were 81 per cent. of the total number in attendance at the schools visited. It is hoped that this percentage may be raised to its maximum at subsequent inspections.

**Fees.**—Small fees, varying from 2s. 6d. to 7s. 6d., are recoverable by the Government from parents who are in a position to pay them. In the case of children of indigent parents and children educated by charity or at Government expense, no fees are charged; but a certificate of indigency must be obtained by the parent or guardian from the Civil Commissioner, Magistrate or Assistant Magistrate of the district before these fees can be remitted.

**Routine Adopted.**—As this has been the first visit of the schools dental surgeon to each school, inspection has not been confined to age groups, but all the children in attendance at each school have been inspected, provided, as previously stated, that parental consent has been forthcoming.

The routine adopted has been first a thorough dental examination of every child presented. Each child has made out for him a dental record card, on which are particulars of age, place of birth, etc., and on the reverse side a dental chart. On this chart can be recorded the condition of the child's mouth when first it presents itself for inspection, and also particulars of any treatment which may be performed at subsequent visits.

The children having been examined in this way, actual treatment is then commenced, each child paying a short visit, if possible, at first, and later the

visit being prolonged until all treatment has been completed. This method of gradual introduction may at first sight appear a waste of time, but it has been found that by working in this way as much ground has been covered, with more pleasant results both to operator and patient.

**Presence of Parents.**—It has been the exception rather than the rule for parents to be present when their children come up for treatment. This state of affairs is not greatly to be deplored, I think, as children are more easily handled when on their own than when accompanied by parents, from whom they imagine they can elicit a quite unnecessary sympathy. It is, however, desirable that parents should come to see the schools dental surgeon at some time during his visit in order that details of treatment may be explained to them and the individual child's case discussed. If, however, parents express a desire to be present when a child is being treated, no objection will be raised.

**Districts.**—Inspections have so far been confined to the districts in which there is no resident dentist. In the schools in these districts many of the children have never received any dental attention, thus the number requiring treatment has been so large that it has not been possible to visit all the districts which my itinerary covers.

The following is a list of the schools visited during the year:—

School	Number in attendance.
Emerald Hill Orphanage ... ..	55
Sinoia Public ... ..	34
Shamva Mine ... ..	77
Arcadia ... ..	12
Bindura Farm ... ..	15
Citrus Estate Farm School, Mazoe ... ..	8
Bellevue Aided Farm School ... ..	6
Enkeldoorn Public School ... ..	102
Riversdale Farm School ... ..	26
Uitkyk Farm School ... ..	12
Selukwe Public and Wonderland Mine Schools	64
Gwanda Farm School ... ..	19
Shabani Mine School ... ..	31
Queen's Mine School ... ..	17
Glenville Preparatory ... ..	7
Cement Siding Farm School ... ..	9
Shangani Farm School ... ..	13
Lonely Mine School ... ..	64
Warringham Farm School ... ..	10
Willoughby's Spur Farm School ... ..	15
Victoria Plots Farm School ... ..	34
Gath's Mine School ... ..	19
Rurgwe, Lothian and Doornfontein Aided Farm Schools ... ..	18
Morgenster Farm School ... ..	11
De Rust Farm School, Somabula ... ..	17
Victoria Public School (not completed) ... ..	70

**Figures showing Numbers of Children Inspected, Treated, etc.—**

(a) During Routine Inspections.—

Children in Attendance ... ..	765
Number inspected (boys) ... ..	304
Number inspected (girls) ... ..	317
Total ... ..	621 (81.1%)
Number of children requiring treatment for any cause ... ..	614 (98.8%)
Number of children treated ... ..	587
Number of children having carious teeth ... ..	512 (82.4%)
Number of children having deposits of salivary calculus ... ..	124 (19.9%)

## (b) At a Special Inspection conducted at Boys' and Girls' High Schools and Primary School, Salisbury.—

Number of children inspected (boys) ... ..	75
Number of children inspected (girls) ... ..	75
Total ... ..	150
Number of children having carious teeth ... ..	124 (82.6%)

From the foregoing table it will be seen that the total number of children in attendance at the schools at which routine inspections were conducted was 765, and of this number 621 (304 boys and 317 girls) were presented for dental examination. The remaining 19 per cent. were children whose parents were unwilling that they should be examined, either (i.) because the children had recently been in the hands of a dental surgeon, or (ii.) because the parents were neglectful of an important factor in the health of their children. Included also in this 19 per cent. were (iii.) a few children absent from school on account of ill-health.

**Uninspected Children.**—With regard to the first two of these three groups of uninspected children, principals of schools are urged to do their utmost to persuade parents to send their children up for examination, even in the case of those children who have but recently been under dental treatment. Dental caries in the child so easily develops that the lapse of a few months is sufficient to produce lesions, which, if not treated at once, may result in the tooth passing from the saveable to the unsaveable stage.

If the child requires no treatment, inspection justifies itself by allowing the charting of the dental conditions present, and this chart will prove to be invaluable at subsequent visits, when actual treatment may become necessary.

**Percentage Requiring Treatment.**—Of the 621 children inspected, 614 (98.8 per cent.) required treatment, either for caries, for removal of salivary calculus or for regulation.

**Caries.**—Caries occurred in 512 children—that is to say, that out of 621 children examined, 82.4 per cent. showed definite carious lesions. This figure compares not unfavourably with that showing the incidence of caries in children attending schools in the British Isles.

The schools dental surgeon for a district in South Wales states, in a paper published in the *British Dental Journal*, January, 1926, that when dental inspections were instituted in 1921, "only 7 per cent. of 4,000 children examined had mouths free from dental caries." And again, the investigations of the British Dental Association prior to 1919 showed that out of 10,500 English and Scottish boys and girls averaging 12 years of age, 86 per cent. of the mouths showed that caries was present in one form or another.

From the figures for the whole year's work it would appear that there is little difference in the incidence of caries in children attending the schools in Salisbury and in those attending schools in the outside districts.

**Salivary Calculus.**—Tartar was present on the teeth of 124 children, i.e., 19.96 per cent. of the total number examined. In 12 cases the amount of salivary calculus was large.

**Condition of Gingival Margins.**—The gum condition of children is usually healthy, except where inflammatory conditions exist, due to chronic abscesses caused by the retention of septic roots of temporary teeth. Of the 621 children inspected, 81 (13 per cent.) fell below this standard, however. Fifty-eight children had chronic local periodontitis in a slight degree, which was confined chiefly to the lower incisor region of the mandible. This condition was occasioned in all cases by the accumulation of salivary calculus in the gingival trough below the level of the gum margin, and subsided on removal of the irritant cause. In 23 cases the inflammatory condition was more severe and not confined to one part of the mouth.

**Previous Treatment.**—Number of teeth filled by private practitioners prior to inspection, 181. This number is low, and is explained by the fact that the

districts visited have been those in which dental attention is obtained only with great difficulty.

**Details of Treatment.**—(a) Fillings.—The total number of fillings performed during the year was 1,109. They may be classified as follows:—

Fillings in Permanent Teeth—

Performed without anæsthetics ... ..	605
Performed with local anæsthetics ... ..	288

Fillings in Temporary Teeth—

Performed without anæsthetics ... ..	215
Performed with local anæsthetics ... ..	1

Total ... ..	1,109
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Root Fillings.—In 23 cases extirpation of the pulp was necessary, followed by root canal treatment and filling.

(b) Extractions.—The total number of teeth extracted was 1,113. They may be classified as follows:—

Permanent Teeth—

Extracted under local anæsthetic ... ..	178
Extracted under nitrous oxide gas ... ..	5
Extracted under general anæsthetic ... ..	39

Temporary Teeth—

Extracted under local anæsthetic ... ..	754
Extracted under nitrous oxide gas ... ..	6
Extracted under general anæsthetic ... ..	131

(c) Orthodontics.—Of this number, 31 teeth were removed for orthodontic purposes—30 under a local anæsthetic and 1 under nitrous oxide gas anæsthesia.

Orthodontic treatment has necessarily been confined to extractions to relieve crowding. In quite a number of cases more extensive treatment was indicated, but as this treatment would have necessitated the adaptation of a vulcanite appliance, it was not possible to carry it out.

(d) Anæsthetics.—It will be seen from these figures that of the total number of teeth extracted, 85.5 per cent. were removed under local anæsthetic. This form of treatment has proved very satisfactory in most cases. Nitrous oxide gas as a dental anæsthetic for children has, in my opinion, decided limitations; the anæsthetic period is short, and however useful the gas may be when used in a fully equipped clinic, staffed by specially trained anæsthetists and nurses, I have found that for the type of work I am called upon to perform it is unsatisfactory. In more severe cases, requiring the extraction of several posterior permanent teeth or a large number of temporary teeth, general anæsthetics have been employed, and these have been administered by the medical officer of the district. When it has been necessary to administer general anæsthetics special parental consent has, in each case, been obtained.

(e) Scaling.—Scaling for removal of salivary calculus was performed in 102 cases.

(f) Other Operations.—Gingivectomy was performed in one case. Removal of a portion of the frænum labiæ was performed in one case.

**Cleanliness.**—The condition of the teeth of the children from the point of view of cleanliness, throughout the Colony leaves much to be desired. The habit of cleaning teeth appears to have been acquired by few children, it being no uncommon thing to find all the teeth of a child covered with food debris and bacterial plaque; and in spite of the opinions which recently have been expressed to the contrary, I maintain that the regular and instructed use of a tooth-brush is a desirable aim. It is important that the children be taught to use and to clean a tooth-brush correctly, and to this end printed instructions

have been issued to principals of schools and to parents outlining a method which is both practicable and effective, and incorporating also certain advice as to diet, which undoubtedly has a big influence on the development of dental caries.

**Lectures.**—During the year it was arranged, in the bigger centres, to meet as many parents as possible and address them on dental hygiene. In all, seven such lectures were delivered.

Although the amount of dental disease amongst children in the Colony is so great, we may feel confident that by routine inspection and treatment, reinforced by the help that parents and principals can give, if their interest is stimulated, great improvement of dental conditions will result, and we can confidently look forward to the time when it will not be so uncommon an experience as it is at present to find a child with a healthy and efficient dentition.

CYRIL FLETCHER,

Schools Dental Surgeon.



## Report of the Medical Superintendent, Ingutsheni Mental Hospital.

I have the honour to submit my report for the year ended 31st December, 1926.

On 1st January, 1926, there were 197 patients on the register. During the year 92 were admitted, 34 were discharged and 23 died. Two hundred and eighty-nine cases were treated, that is, 50 male Europeans, 16 female Europeans, 180 male natives and 43 female natives. There remained in residence on the 31st December, 1926, 231 patients, *i.e.*, 36 male Europeans, 14 female Europeans, 37 female natives and 144 male natives. One European female was absent on probation.

The cases admitted included two re-admissions, both male Europeans. Of the discharged, 34 were discharged recovered, one was discharged by escape and one (a European female) was transferred to a Union mental hospital at the request of her husband. Probation was allowed in two instances; one returned after seven days' absence, and the other remained with relatives pending discharge at the end of the period of probation.

The recovery rate per centum, calculated on the number of patients admitted, was 34.78, as against 58.49 for the previous year. The death rate, calculated on the total number treated, was 7.94 per cent., as against 10.50 in 1925.

Seclusion and restraint had to be employed in the case of seven Europeans and two natives for periods ranging from one to seventeen hours. The reasons for seclusion and restraint were for uncontrollable violence or else epileptic excitement and furor.

Eight escapes occurred during the year. These refer to four patients; in three cases the patient was absent over-night. All were re-taken within the statutory period except one, who was discharged under Regulation 3. Considering we are on the fringe of the bush and that patients are outside every day, it is satisfactory to report so few escapes.

There were a few cases of dysentery and diarrhoea among the native inmates, but on the whole the general health was satisfactory.

Only two kinds of mental disorder call for special comment, namely, general paralysis of the insane and acute alcoholic insanity. General paralysis, I am glad to state, is not increasing in Rhodesia. The number of cases was 1.38 per cent. of the total patients treated. This disease has not occurred among the native inmates during the last five years. The number of alcoholic cases was also 1.38 per cent. With regard to this class, it was necessary for the public safety and their own welfare to place them under care and control forthwith. Under existing conditions there was no alternative but to send them to the gaol or a mental hospital; I, however, find that the alcoholic patients would prefer detention in gaol to being treated in an institution of this nature. Nearly all cases of alcoholic delirium recover before the expiration of the urgency order, and are, therefore, discharged within seven days of admission. These patients complain that removal to an "asylum" is not justified, and they are apprehensive that people might regard them as weak-minded, or that the stigma of insanity is implied. The alcoholic is to be pitied, as his periodical bouts of drinking are perhaps due to a mental weakness or inherent defective self-control. However this may be, there is no doubt that alcohol is responsible for insanity among other of our patients than the class referred to.

Overcrowding continued to be a feature in the male native blocks, but I am glad to report good progress has been made with the building of new wards for this class, and that it may be possible to take them over before the end of January, 1927. The new wards for male natives will enable us to separate completely the natives from the Europeans, as well as increasing the accommodation for the latter. The necessary alterations for conversion of quarters vacated by

natives is to be proceeded with as soon as possible. The alterations proposed will provide much needed dining and recreation rooms for male Europeans.

Two new blocks, one for female Europeans and the other for female natives, were completed this year. The European wards are designed on modern lines, and with a view to suit climatic conditions as well as providing the greatest possible comfort for the patients. The natives are also well housed, and, what is of the greatest importance, they have ample room and live under vastly improved hygienic conditions.

An event of some importance in the history of this institution was the opening of the new female European wards on the 2nd October last. The Honourable the Colonial Secretary, accompanied by the Honourable the Treasurer, formally declared the wards open in the presence of the Mayor, members of the Town Council and public of Bulawayo. Mr. Leggate in the course of his speech explained the aim of the Government in building these wards. He was pleased to express appreciation of the treatment of the insane and the management of the hospital.

The care of the insane is difficult work at the best, but it is gratifying to know that Ministers are taking so much interest in our endeavour to bring this hospital up to present day standards.

The Medical Director paid his usual visits of inspection during the year.

The Honourable H. U. Moffat made a brief visit, inspected the buildings and proposed additions to the farm. Other visitors were Messrs. Huggins, Barbour, Cowden, Thomson (Members of the Legislative Assembly), Bagshawe, Cartwright, and the Director of Public Works.

The farm and garden operations show satisfactory results, and although the water used by the contractors was badly missed, the quantity of produce and dairy supplies purchased was negligible.

As regards cost, the hospital has been economically managed. During the last three months of the year there were fourteen additional European patients (European females transferred from Union hospitals) and five nurses, resulting in slightly increased expenditure, but as we had to pay 4s. a day for each of the patients treated in the Union, I consider the average gross cost leaves a margin large enough to justify the capital outlay on buildings.

Revenue from paying patients and sales of surplus products amounted to £1,327 3s. 3d., *i.e.*, maintenance fees £1,230 12s., sales £96 11s. 3d. Supplies from the farm and garden amounted in value to £898 4s. 10d. There was outstanding from earnings £430 3s. at the end of the year, as against £341 9s. 3d. on 31st December, 1925.

The total expenditure for the year, including value of farm and garden produce, was £7,460 15s. 7d.; this works out at £34 17s. per patient per annum.

The cost of maintenance, calculating on gross expenditure, is 1s. 11d., and the cost per diem, excluding produce, is 1s. 8d. The net cost to the Government after deducting revenue from hospital vote of expenditure was 1s. 4d.

F. H. ELLIS,  
Medical Superintendent.

## Report of the Acting Medical Superintendent, Gomohuru Leper Settlement.

I have the honour to submit the annual report of the Gomohuru Leper Settlement for the year 1926.

The number of inmates of the settlement on the 31st December, 1926, was 187 (131 males and 56 females), and the daily average was approximately 100. Twenty-two (19 males and 3 females) were discharged on probation, and 6 (5 males and 1 female) deserted; 23 died during the year (16 males and 7 females), giving a death rate per 1,000 of 123 (population 187). Twenty-nine males and 11 females were admitted during the year. One of these males was a coloured man in an early stage of the disease. Eleven patients (10 males and 1 female) returned to the settlement. As regards the type of disease, there are approximately:—

Nodular ... ..	15.4 per cent.
Maculo-Anæsthetic ... ..	62.4 per cent.
Mixed ... ..	22.2 per cent.

There are few cases in which the conjunctivæ is attacked, and leprous keratitis is rare.

Fourteen children born of leper parents, over one year old, were discharged to be cared for by healthy relatives or missionary bodies, and five children (two only of whom are over one year) remain in the settlement.

The main feature of the year's work was the occupation of the well-appointed new settlement in the Tokwe Valley during October, 1926. The site covers some 12,000 acres of ground, and the accommodation for the lepers takes the form of separate pole and dagga huts. Foreign lepers are accommodated in a section apart from the lepers of the Colony. The conditions of isolation are comfortable, and no more restraint than is necessary is placed on the inmates. There is no overcrowding, and the sanitation of the kraals is carefully attended to.

The infirm or crippled nerve cases are in two rows of huts together, so that they can be more easily attended to with the necessities of life by their able-bodied co-sufferers, and the dressing of their lesions by the attendants supervised more efficiently.

The inmates expressed much satisfaction with their new abode, and they all seem happy and contented. It was a pleasure to see the zeal with which even many of the infirm were making doors, mats and other structures to add to the comfort of their homes, and also traps to catch fish in the neighbouring rivers.

The able-bodied lepers are encouraged in active pursuits, such as work in the garden and field, as exercise raises their resistance to the disease, lessens the risk of harmful re-actions, and prevents the occurrence of deformities, besides keeping them from brooding on their affliction. Also, the food produced lessens the cost of upkeep of the institution. The settlement is therefore an agricultural colony.

A road five miles long has been constructed, and makes the settlement easily approached from the Victoria-Nuanetsi road.

A brick building was erected for the use of the coloured leper.

A well is at present in process of construction. Many bricks were made during the year, and an assistant superintendent's residence, hospital and stores will be built in the near future. The telephone will shortly be re-installed and connected up with Victoria.

The food supplied is good, liberal and fresh. Skin and bowel sanitation are carefully attended to, and co-existent diseases, such as pyorrhœa, malaria, etc.,

which tend to lower the resistance of the body to the disease, are searched for and treated, as experts in leprosy consider that special anti-leprosy treatment is useless unless the general health is improved to its greatest extent.

Twenty-nine cases (26 males and 3 females) were selected for treatment by injections of hydnocreol, a preparation of chaulmoogra oil. (A few of these were selected from new admissions since the Leprosy Board sat in the beginning of October, 1926.)

A full clinical examination of the general physical condition and the extent of the disease in these cases has been made and careful notes taken, so that results of treatment can be ascertained later by comparing them with their previous condition.

Some of these cases are chronic, and it is hoped by the injections to clear up their perforating ulcers and other trophic lesions, so that they can be discharged on probation.

Many of the cases selected are in an early stage, though very few are in a sufficiently early stage of the disease to show rapid recovery under treatment. It is hoped, however, that the very early cases will derive benefit from the treatment and be fit for discharge, in order to carry on propaganda work for the institution, inducing other sufferers to voluntarily come earlier to the institution than has hitherto been the general rule. Thus sufficient time has not yet elapsed in the treatment of the disease for the best results to be obtained.

The coloured leper mentioned above is of the nodular type of the disease. He was admitted in December, 1926, in a fairly early stage, and should derive much benefit from treatment. He is an educated man, and gives intelligent co-operation in his treatment, and is very useful in encouraging the other less intelligent inmates, to whom the newer methods of treatment are somewhat terrifying.

Counter irritation by pure chaulmoogra oil and unguentum chaulmoogra has been employed in a few cases, and the value of the daily baths and the action of the sun's rays emphasised as an adjunct to this line of treatment. It is proposed also to employ trichloroacetic acid shortly in some selected cases. One case was put on pure chaulmoogra oil by mouth for a time and felt some improvement.

The Assistant Superintendent is being instructed in the aseptic technique and dosage necessary for success in giving the hydnocreol injections, and in observing the re-actions possible after injections, and shows much interest; so that when those under treatment can tolerate more of the drug, the injections can be given more frequently with his co-operation.

The proposed hospital is much needed, especially for the satisfactory treatment of sufferers with perforating ulcers and sores.

J. PATTON,

Acting Medical Superintendent.

## PART III.

## ESTABLISHMENT.

The establishment as authorised during the year 1926 was as follows:—

Chief Health Officer, Medical Inspector of Schools, Bacteriologist, 2 Senior Government Medical Officers (whole time), 3 Senior Government Medical Officers (Grade I.), Schools Dental Surgeon, 4 Government Medical Officers (Grade II.), 15 Government Medical Officers (Grade III.), 5 Aided Medical Officers, Chief Clerk, Senior Clerk, 1 Clerk (Grade II.), 1 Clerk (Grade III.), 1 Clerk on probation, 2 temporary Clerks, 5 Lady Clerks, 2 Inspectors of Compounds, 3 Laboratory Assistants, 1 Radiographer, 8 Hospital Secretaries and Dispensers, Senior Matron, 8 Hospital Matrons, 2 Assistant Matrons, 14 Nurse Matrons and Sisters, 38 qualified Nurses, 49 Probationers, 9 Asylum Keepers and Overseers, 2 male European Orderlies, 1 female Attendant (mental hospital), 1 Masseuse, 2 Interpreters, 3 Messengers, 4 Mosquito Collectors, 2 native Laboratory Assistants.

**Supplementary Auxiliary Staff.**—One part-time hospital secretary, one part-time dispenser, 2 needlewomen, 1 European female cook, 1 part-time radiographer.

The miscellaneous coloured and native staffs attached to the various institutions are as follows:—4 Indian cooks, 4 Indian laundrymen, 4 ward-maids, 238 natives.

Total European staff ... ..	190
Total coloured staff ... ..	249
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	439

TABLE 1.  
EUROPEAN BIRTHS, 1926.

District.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Salisbury ...	19	27	23	20	35	18	25	34	22	22	35	27	307
Bulawayo ...	23	14	22	25	26	25	24	17	30	25	19	24	274
Umtali ...	12	3	7	7	10	12	10	9	7	17	9	8	111
Gwelo ...	2	1	2	5	10	3	5	7	9	4	3	6	57
Fort Victoria	1	1	2	5	2	5	5	3	2	1	3	1	31
Gatooma ...	4	5	4	7	4	2	2	5	...	4	6	5	48
Gwanda ...	3	3	...	...	...	2	...	...	...	...	1	1	10
Selukwe ...	...	1	...	...	2	3	2	1	1	...	3	1	14
Charter ..	1	4	5	1	2	3	...	3	4	3	3	2	31
Melsetter ...	...	1	...	2	1	1	...	5	3	1	1	1	16
Umvuma ...	3	1	...	...	2	...	...	...	...	1	...	1	8
Hartley ...	...	1	...	...	...	...	2	...	...	1	...	...	4
Que Que ...	1	...	5	7	2	...	1	5	2	1	2	2	28
Totals ...	69	62	70	79	96	74	76	89	80	80	85	79	939

TABLE 2.  
EUROPEAN DEATHS, 1926.

Age periods.				Males.	Females.	Totals.
0—1	...	...	...	30	16	46
1—5	...	...	...	16	14	30
5—15	...	...	...	8	8	16
15—25	...	...	...	19	8	27
25—35	...	...	...	14	15	29
35—45	...	...	...	25	12	37
45—55	...	...	...	37	18	55
55—65	...	...	...	43	20	63
65—75	...	...	...	22	9	31
75—85 and over	...	...	...	11	...	11
Age unknown	...	...	...	3	...	3
All ages	...	...	...	228	120	348

TABLE 3.  
EUROPEAN DEATHS, 1926.

District.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Salisbury ...	12	9	7	11	4	7	7	15	11	18	9	16	126
Bulawayo ...	7	4	10	10	8	8	11	13	8	10	9	13	111
Umtali ...	3	2	1	2	8	2	...	3	4	...	3	6	34
Gwelo ...	1	3	1	2	2	...	2	4	3	4	1	3	26
Fort Victoria	1	1	...	1	...	2	...	1	1	1	2	1	11
Gatooma ...	2	...	...	3	1	...	1	1	3	...	...	1	12
Gwanda ...	...	...	1	...	...	1	1	...	1	...	...	1	5
Selukwe ...	...	...	...	...	1	...	...	1	...	1	...	...	3
Charter ...	...	...	...	...	...	1	1	...	...	1	...	1	4
Melsetter ...	...	...	...	...	1	...	...	...	...	1	...	...	2
Umvuma ...	...	...	...	...	...	...	...	1	...	...	...	...	1
Hartley ...	...	...	...	...	...	1	1	...	1	...	...	...	3
Que Que ...	1	...	1	1	3	...	2	2	...	...	...	...	10
Totals ...	27	19	21	30	28	22	26	41	32	36	24	42	348

TABLE 4.  
EUROPEAN BIRTHS AND DEATHS, 1926.

Month	Births	Deaths	Ages of dying.										
			0-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65-75	75-85 and over	Age unknown
January ...	69	27	2	1	2	2	...	2	4	6	5	3	...
February	62	19	1	3	1	2	3	3	4	1	1	...	...
March ...	70	21	3	1	1	...	...	2	4	7	2	...	1
April ...	79	30	3	5	2	2	2	3	8	3	2	...	...
May ...	96	28	5	5	...	3	2	2	3	5	3	...	...
June ...	74	22	4	2	...	1	1	2	1	6	1	4	...
July ...	76	26	3	2	2	1	3	3	7	3	1	1	...
August ...	89	41	8	1	2	1	4	7	7	8	3	...	...
September	80	32	4	2	1	6	3	3	5	6	1	1	...
October ...	80	36	2	4	1	3	6	4	4	8	4	...	...
November	85	24	5	3	1	2	3	2	2	2	3	1	...
December	79	42	6	1	3	4	2	4	6	8	5	1	2
Totals	939*	348	46	30	16	27	29	37	55	63	31	11	3
Per cent. of total	...	...	13.22	8.62	4.60	7.76	8.33	10.63	15.80	18.10	8.91	3.16	.86

21.84 per cent. of total European deaths.

\* Illegitimate births 2.02 per cent. of total births.

TABLE 5.

TABLE SHOWING EUROPEAN ADMISSIONS TO HOSPITALS  
DURING 1926.

Name of hospital.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Salisbury ...	122	88	117	124	125	93	95	113	110	133	120	103	1,343
Bulawayo ...	95	82	78	103	107	101	94	93	79	86	87	94	1,099
Umtali ...	33	42	43	47	39	24	27	30	27	31	21	28	392
Gwelo ...	19	28	25	27	21	24	28	18	25	24	25	21	285
Fort Victoria	6	22	17	10	10	12	9	5	10	8	4	3	116
Gatooma ...	14	24	19	37	27	17	17	13	26	18	15	21	246
Enkeldoorn	3	5	6	12	11	6	2	11	2	1	7	13	79
Gwanda ...	4	2	2	4	7	2	...	3	1	4	3	6	38
Sinoia ...	11	14	11	9	12	7	9	13	6	9	7	8	116
Shamva ...	12	8	22	13	9	8	6	6	4	4	9	6	107
Belingwe ...	...	1	...	...	...	2	1	2	...	...	...	...	6
Totals ...	319	316	340	386	368	296	288	307	290	316	298	303	3,827

TABLE 6.

TABLE SHOWING NATIVE ADMISSIONS TO HOSPITALS  
DURING 1926.

Name of hospital.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Salisbury ...	83	65	104	90	100	101	142	166	163	145	127	100	1,386
Bulawayo ...	75	77	94	113	109	84	94	112	116	141	116	136	1,267
Umtali ...	30	39	55	46	45	48	23	25	51	57	62	40	521
Gwelo ...	26	23	14	27	30	31	44	88	70	56	49	41	499
Fort Victoria	8	6	6	12	8	6	9	6	10	19	16	13	119
Gatooma ...	44	41	49	77	53	43	64	91	83	86	57	57	745
Enkeldoorn	6	2	10	7	5	8	4	8	7	10	18	8	93
Gwanda ...	20	9	13	15	13	9	15	13	9	14	11	12	153
Sinoia ...	9	7	8	5	18	13	10	14	14	19	16	16	149
Shamva ...	15	10	19	15	17	15	17	13	27	14	14	15	191
Belingwe ...	5	1	1	5	5	4	3	5	5	2	3	6	45
Totals ...	321	280	373	412	403	362	425	541	555	563	489	444	5,168

TABLE 7.

Table showing monthly admissions to hospitals during 1926 from malaria, blackwater fever, dysentery, pneumonia, typhoid fever and scurvy.

## EUROPEANS.

Disease.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Malaria ...	44	49	108	124	129	29	23	20	12	23	23	30	614
Blackwater fever	4	2	9	7	3	4	2	2	...	3	...	...	36
Dysentery ...	3	1	9	8	1	...	4	5	...	8	13	4	54
Pneumonia...	7	5	2	4	5	5	14	17	12	4	5	2	82
Typhoid ...	1	5	4	3	3	3	1	2	4	5	3	4	38
Scurvy ...	...	...	...	...	...	...	...	...	...	...	...	...	...

## NATIVES.

Malaria ...	35	41	42	44	44	41	14	15	8	36	30	32	382
Blackwater fever	...	...	...	...	1	...	...	...	...	...	1	...	2
Dysentery ...	3	5	8	4	5	4	2	3	5	9	7	7	62
Pneumonia...	27	20	37	39	39	30	101	159	168	111	94	73	898
Typhoid ...	...	1	...	...	...	5	...	...	1	...	4	1	12
Scurvy ...	5	3	6	3	2	...	3	9	6	13	21	15	86

TABLE 8.

Cases, with mortality rate per cent., admitted to hospitals during 1926, as compared with 1925.

Name of hospital.		1925.			1926.		
		Cases.	Deaths.	Mortality rate per cent.	Cases.	Deaths.	Mortality rate per cent.
Salisbury ...	White	1,273	49	3.85	1,343	46	3.42
	Native	1,076	128	11.90	1,386	193	13.92
Umtali ...	White	415	11	2.65	392	12	3.06
	Native	458	26	5.68	521	73	14.0
Gwelo ...	White	191	15	7.85	285	13	4.56
	Native	506	40	7.91	499	63	1.26
Fort Victoria ...	White	93	3	3.23	116	3	2.59
	Native	97	3	3.09	119	5	4.20
Gwanda ...	White	39	1	2.56	38	...	...
	Native	214	10	4.67	153	15	9.80
Enkeldoorn ...	White	32	...	...	79	...	...
	Native	58	2	3.45	93	8	8.60
Gatooma ...	White	302	15	4.97	246	8	3.25
	Native	478	70	14.64	745	93	12.48
Bulawayo...	White	970	40	4.12	1,099	41	3.73
	Native	1,075	87	8.09	1,267	154	12.15
Shamva ...	White	112	4	3.57	107	6	5.61
	Native	178	20	11.24	191	25	13.09
Sinoia ...	White	83	3	3.62	116	2	1.72
	Native	105	16	15.24	149	23	15.44
Belingwe ...	White	14	2	14.29	6	...	...
	Native	56	6	10.71	45	1	2.22
Totals ...	White	3,524	143	4.06	3,827	131	3.42
	Native	4,301	408	9.49	5,168	653	12.64

TABLE 9.

Cases, with mortality rate per cent., of malarial fever admitted to hospitals in 1926, as compared with 1925.

Name of hospital.		1925.			1926.		
		Cases.	Deaths.	Mortality rate per cent.	Cases.	Deaths.	Mortality rate per cent.
Salisbury ... ..	White	182	...	...	130	...	...
	Native	124	3	2.42	78	1	1.28
Umtali ... ..	White	178	1	0.56	137	...	...
	Native	114	1	0.87	99	3	3.03
Gwelo ... ..	White	41	...	...	55	1	1.82
	Native	93	1	1.08	41	1	2.44
Fort Victoria ... ..	White	31	...	...	33	...	...
	Native	11	...	...	6	...	...
Gwanda ... ..	White	4	...	...	5	...	...
	Native	9	...	...	10	1	10.00
Enkeldoorn ... ..	White	15	...	...	12	...	...
	Native	16	...	...	8	1	12.50
Gatooma ... ..	White	107	...	...	76	1	1.32
	Native	22	...	...	15	2	13.33
Bulawayo ... ..	White	115	1	0.86	82	1	1.22
	Native	100	2	2.00	84	3	3.57
Shamva ... ..	White	54	...	...	39	1	2.56
	Native	12	2	16.67	22	...	...
Sinoia ... ..	White	36	...	...	45	...	...
	Native	14	2	14.29	19	2	10.53
Belingwe ... ..	White	2	...	...	...	...	...
	Native	4	...	...	...	...	...
Totals ... ..	White	765	1	0.13	614	4	0.65
	Native	519	11	2.12	382	14	3.67

TABLE 10.

Cases, with mortality rate per cent., of hæmoglobinuric fever (blackwater) admitted to hospitals in 1926, as compared with 1925.

Name of hospital.		1925.			1926.		
		Cases.	Deaths.	Mortality rate per cent.	Cases.	Deaths.	Mortality rate per cent.
Salisbury ... ..	White	8	1	12.40	7	1	14.29
	Native	4	...	...	...	...	...
Umtali ... ..	White	13	2	15.38	5	1	20.00
	Native	3	...	...	2*	1	50.00
Gwelo ... ..	White	2	1	50.00	2	1	50.00
	Native	...	...	...	...	...	...
Fort Victoria ... ..	White	1	1	100.00	...	...	...
	Native	...	...	...	...	...	...
Gwanda ... ..	White	1	1	100.00	...	...	...
	Native	...	...	...	...	...	...
Enkeldoorn ... ..	White	...	...	...	1	...	...
	Native	...	...	...	...	...	...
Gatooma ... ..	White	14	4	28.57	4	1	25.00
	Native	...	...	...	...	...	...
Bulawayo ... ..	White	4	1	25.00	4	1	25.00
	Native	...	...	...	...	...	...
Shamva ... ..	White	7	2	28.57	10	5	50.00
	Native	...	...	...	...	...	...
Sinoia ... ..	White	1	...	...	3	1	33.33
	Native	...	...	...	...	...	...
Belingwe ... ..	White	...	...	...	...	...	...
	Native	...	...	...	...	...	...
Totals ... ..	White	51	13	25.49	36	11	30.56
	Native	7	...	...	2	1	50.00

\* 1 Indian, 1 coloured.

TABLE 11.

Cases, with mortality rate per cent., of pneumonia admitted to hospitals during 1926, as compared with 1925.

Name of hospital.		1925.			1926.		
		Cases.	Deaths.	Mortality rate per cent.	Cases.	Deaths.	Mortality rate per cent.
Salisbury	White	13	2	15.30	45	11	24.44
	Native	120	23	19.20	416	113	27.16
Umtali	White	8	2	25.00	5	3	60.00
	Native	46	7	15.21	104	43	41.35
Gwelo	White	4	3	75.00	7	2	28.57
	Native	37	11	29.73	74	25	33.78
Fort Victoria	White	3	1	33.33	...	...	...
	Native	1	...	...	2	...	...
Gwanda	White	...	...	...	...	...	...
	Native	18	...	...	13	3	23.08
Enkeldoorn	White	...	...	...	1	...	...
	Native	2	...	...	5	1	20.00
Gatooma	White	9	4	44.40	4	...	...
	Native	48	21	43.75	52	23	44.23
Bulawayo	White	22	2	9.09	18	2	11.11
	Native	92	32	34.78	205	74	36.10
Shamva	White	1	1	100.00	1	...	...
	Native	6	1	16.67	5	2	40.00
Sinoia	White	3	1	33.33	1	...	...
	Native	5	3	60.00	22	12	54.55
Belingwe	White	...	...	...	...	...	...
	Native	4	1	25.00	...	...	...
Totals	White	64	16	25.00	82	18	21.95
	Native	379	99	26.12	898	296	32.96

TABLE 12.

Cases, with mortality rate per cent., of dysentery admitted to hospitals in 1926, as compared with 1925.

Name of hospital.		1925.			1926.		
		Cases.	Deaths.	Mortality rate per cent.	Cases.	Deaths.	Mortality rate per cent.
Salisbury	White	11	...	...	13	...	...
	Native	11	4	36.30	24	...	...
Umtali	White	11	...	...	11	...	...
	Native	1	...	...	14	1	7.14
Gwelo	White	6	1	16.66	7	...	...
	Native	2	2	100.00	7	1	14.28
Fort Victoria	White	1	...	...	1	...	...
	Native	...	...	...	2	...	...
Gwanda	White	1	...	...	...	...	...
	Native	...	...	...	...	...	...
Enkeldoorn	White	2	...	...	1	...	...
	Native	...	...	...	...	...	...
Gatooma	White	1	...	...	...	...	...
	Native	3	...	...	...	...	...
Bulawayo	White	6	1	16.66	15	...	...
	Native	8	2	25.00	13	7	53.85
Shamva	White	...	...	...	1	...	...
	Native	5	1	20.00	1	...	...
Sinoia	White	...	...	...	5	...	...
	Native	...	...	...	1	1	100.00
Belingwe	White	1	1	100.00	...	...	...
	Native	7	...	...	...	...	...
Totals	White	40	3	7.50	54	...	...
	Native	37	9	24.32	62	10	16.13

TABLE 13.

Cases, with mortality rate per cent., of typhoid fever admitted to hospitals in 1926, as compared with 1925.

Name of hospital.		1925.			1926.		
		Cases.	Deaths.	Mortality rate per cent.	Cases.	Deaths.	Mortality rate per cent.
Salisbury	White	4	...	...	7	1	14.29
	Native	2	1	50.00	11	4	36.37
Umtali	White	3	...	...	8	2	25.00
	Native	...	...	...	...	...	...
Gwelo	White	2	...	...	8	...	...
	Native	4	3	75.00	...	...	...
Fort Victoria	White	1	...	...	...	...	...
	Native	...	...	...	...	...	...
Gwanda	White	...	...	...	1	...	...
	Native	1	1	100.00	...	...	...
Enkeldoorn	White	1	...	...	1	...	...
	Native	...	...	...	...	...	...
Gatooma	White	3	...	...	...	...	...
	Native	...	...	...	...	...	...
Bulawayo	White	10	...	...	13	3	23.08
	Native	2	1	50.00	1	...	...
Shamva	White	...	...	...	...	...	...
	Native	...	...	...	...	...	...
Sinoia	White	...	...	...	...	...	...
	Native	...	...	...	...	...	...
Belingwe	White	...	...	...	...	...	...
	Native	...	...	...	...	...	...
Totals	White	24	...	...	38	6	15.79
	Native	9	6	66.67	12	4	33.33

TABLE 14.

Cases, with mortality rate per cent., of scurvy admitted to hospitals in 1926, as compared with 1925.

Name of hospital.		1925.			1926.		
		Cases.	Deaths.	Mortality rate per cent.	Cases.	Deaths.	Mortality rate per cent.
Salisbury	White	...	...	...	...	...	...
	Native	1	1	100.00	...	...	...
Umtali	White	...	...	...	...	...	...
	Native	...	...	...	2	...	...
Gwelo	White	...	...	...	...	...	...
	Native	10	5	50.00	4	1	25.00
Fort Victoria	White	...	...	...	...	...	...
	Native	...	...	...	...	...	...
Gwanda	White	...	...	...	...	...	...
	Native	4	1	25.00	3	1	33.33
Enkeldoorn	White	...	...	...	...	...	...
	Native	...	...	...	4	...	...
Gatooma	White	...	...	...	...	...	...
	Native	8	1	12.50	22	2	9.09
Bulawayo	White	...	...	...	...	...	...
	Native	13	...	...	38	1	2.63
Shamva	White	...	...	...	...	...	...
	Native	...	...	...	1	...	...
Sinoia	White	...	...	...	...	...	...
	Native	2	...	...	12	...	...
Belingwe	White	...	...	...	...	...	...
	Native	1	...	...	...	...	...
Totals	White	...	...	...	...	...	...
	Native	39	8	20.51	86	5	5.81



Name of disease.	EUROPEANS														NATIVES						Grand totals											
	0-1		1-5		5-15		15-25		25-35		35-45		45-55		55-65		65-75		75-85			Age unknown		Totals		Under 5 years		Over 5 years		Totals		
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M		F	M	F	M	F	M	F	M	F		
Brought forward	1	3	6	8	2	4	10	4	12	9	9	5	15	11	14	3	6	4	4	...	...	...	79	51	4	3	263	11	267	14	346	65
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
60. Encephalitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61. Simple meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61c. Cerebro-spinal fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
63. Other diseases of the spinal cord	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
64. Cerebral hemorrhage, apoplexy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
66. Paralysis without specific cause	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
67. General paralysis of the insane	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
68. Other forms of mental alienation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
69. Epilepsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
71. Convulsions of infants	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
74. Other diseases of the nervous system	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
76. Diseases of the ears	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III. DISEASES OF THE CIRCULATORY SYSTEM.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
77. Pericarditis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
78. Acute endocarditis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
79. Organic diseases of the heart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
80. Angina pectoris	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
81. Diseases of the arteries, atheroma, aneurism, etc.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
82. Embolism and thrombosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
84. Diseases of the lymphatic system (lymphangitis, etc.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
85. Hemorrhage; other diseases of the circulatory system	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
IV. DISEASES OF THE RESPIRATORY SYSTEM.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
87. Diseases of the larynx	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
88. Diseases of the thyroid body	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
89. Acute bronchitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
90. Chronic bronchitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
91. Broncho-pneumonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
92. Pneumonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
93. Pleurisy	...	...	...	...	...	...	...	...	...	...	...	...	...	...																		

Name of disease.	EUROPEANS																NATIVES						Grand totals										
	0-1		1-5		5-15		15-25		25-35		35-45		45-55		55-65		65-75		75-85		Age unknown			Totals									
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		M	F								
Brought forward	7	7	10	12	6	6	13	5	13	11	14	8	26	16	30	14	16	7	7	...	1	...	143	86	23	11	523	15	546	26	689	112	
V. DISEASES OF THE DIGESTIVE SYSTEM.																																	
100. Diseases of the pharynx	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	1	...
101. Diseases of the oesophagus	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
102. Ulcer of the stomach	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
104. Diarrhoea and enteritis (under two years)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1	...	...	...	...	...	...	...	...	...
105. Diarrhoea and enteritis (two years and over)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
106a. Bilharziasis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
108. Appendicitis and typhilitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
109. Hernias, intestinal obstructions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
110. Diseases of the intestines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
112. Hydatid tumours of the liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
113. Cirrhosis of the liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
114. Biliary calculi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
115. Other diseases of the liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
116. Diseases of the spleen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
117. Simple peritonitis (non-puerperal)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
118. Other diseases of the digestive system (cancer and tuberculosis excepted)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VI. NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA.																																	
119. Acute nephritis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
120. Bright's disease	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
122. Other diseases of the kidneys and annexa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
126. Diseases of the prostate	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
127. Non-venereal diseases of the male genital organs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
132. Salpingitis and other diseases of the female genital organs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VII. THE PUERPERAL STATE.																																	
134. Accidents of pregnancy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
135. Puerperal hæmorrhage	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
136. Other accidents of labour	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
137. Puerperal septicæmia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
138. Puerperal albuminuria and convulsions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VIII. DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.																																	
142. Gangrene	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
144. Acute abscess	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
145. Other diseases of the skin and annexa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carried forward	16	8	14	12	6	7	14	8	13	15	16	10	27	17	38	16	17	7	8	...	2	...	171	100	28	12	567	20	595	32	766	132	

Name of disease.	EUROPEANS														NATIVES						Grand totals												
	0-1		1-5		5-15		15-25		25-35		35-45		45-55		55-65		65-75		75-85			Age unknown		Totals		Under 5 years		Over 5 years		Totals			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		M	F	M	F	M	F	M	F	M	F		
Brought forward	16	8	14	12	6	7	14	8	13	15	16	10	27	17	38	16	17	7	8	...	2	...	171	100	28	12	567	20	595	32	766	132	
IX. DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.																																	
146. Diseases of the bones (tuberculosis excepted)	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	4	...	4	...	6	...	
147. Diseases of the joints (tuberculosis and rheumatism excepted)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	
X. MALFORMATIONS.																																	
150. Congenital malformations (still-birth not included)	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	
XI. DISEASES OF EARLY INFANCY.																																	
151. Congenital debility, icterus and sclerema	13	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	5	...	...	...	4	...	4	...	17	9	
152. Other diseases peculiar to early infancy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...
XII. OLD AGE.																																	
154. Senility	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	1	3	...	...	6	2	...	...	...	3	...	3	...	9	2	
XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.																																	
155. Suicide by poison	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
159. Suicide by firearms	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
163. Other suicides	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
165. Other acute poisonings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
165a. Venomous bites and stings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
166. Conflagration	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
167. Burns (conflagration excepted)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
168. Absorption of deleterious gases (conflagration excepted)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
169. Accidental drowning	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
170. Traumatism by firearms	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
172. Traumatism by fall	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
173. Traumatism in mines and quarries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
176. Injuries by animals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
179. Effects of heat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
185. Fractures (cause not specified)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
186. Other external violence	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
186a. Execution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
XIV. ILL-DEFINED DISEASES.																																	
187. Ill-defined organic diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
188. Sudden death	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
189. Cause of death not specified or ill-defined	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	30	16	16	14	8	8	19	8	14	15	25	12	37	18	43	20	22	9	11	...	3	...	228	120	36	18	625	26	661	44	889	164	

TABLE 16.

## CLASSIFICATION OF DEATHS (EUROPEANS), 1926.

Deaths classified according to the international classification of causes of sickness and death.

## I.—GENERAL DISEASES.

Classifi- cation No.	Disease.	No. of Deaths.
1	Typhoid fever ... ..	6
4	Malaria ... ..	14
4a	Blackwater fever ... ..	21
6	Measles ... ..	3
8	Whooping cough ... ..	3
9	Diphtheria and croup ... ..	2
10	Influenza ... ..	16
14	Dysentery ... ..	3
20	Purulent infection and septicæmia ... ..	2
28	Tuberculosis of lungs ... ..	16
29	Acute miliary tuberculosis ... ..	1
31	Abdominal tuberculosis ... ..	2
40	Cancer and other malignant tumours of the stomach, liver ... ..	5
41	Cancer and other malignant tumours of the peritoneum, intestines, rectum ... ..	7
42	Cancer and other malignant tumours of the female genital organs ... ..	5
43	Cancer and other malignant tumours of the breast ... ..	4
45	Cancer and other malignant tumours of other organs and of organs not specified ... ..	10
46	Other tumours (tumours of the female genital organs excepted) ... ..	1
47	Acute articular rheumatism ... ..	1
50	Diabetes ... ..	2
55	Other general diseases (trypanosomiasis) ... ..	1
56	Alcoholism (acute or chronic) ... ..	5

## II.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.

60	Encephalitis ... ..	1
61	Simple meningitis ... ..	2
63	Other diseases of the spinal cord ... ..	1
64	Cerebral hæmorrhage, apoplexy ... ..	5
66	Paralysis without specified cause ... ..	2
67	General paralysis of the insane ... ..	2
68	Other forms of mental alienation ... ..	1
69	Epilepsy ... ..	1
71	Convulsions of infants ... ..	3
74	Other diseases of the nervous system ... ..	2
76	Diseases of the ears ... ..	2

## III.—DISEASES OF THE CIRCULATORY SYSTEM.

77	Pericarditis ... ..	1
78	Acute endocarditis ... ..	4
79	Organic diseases of the heart ... ..	18
80	Angina pectoris ... ..	2
81	Diseases of the arteries, atheroma, aneurism, etc. ... ..	2
82	Embolism and thrombosis ... ..	1

## IV.—DISEASES OF THE RESPIRATORY SYSTEM.

87	Diseases of the larynx ... ..	3
88	Diseases of the thyroid body ... ..	2
89	Acute bronchitis ... ..	3
90	Chronic bronchitis ... ..	3
91	Broncho-pneumonia ... ..	10
92	Pneumonia ... ..	20
93	Pleurisy ... ..	1
95	Gangrene of the lung ... ..	1
96	Asthma ... ..	4
98	Other diseases of the respiratory system (tuberculosis excepted) ... ..	1
98a	Miners' phthisis ... ..	1

Carried forward ... .. 229

## V.—DISEASES OF THE DIGESTIVE SYSTEM.

Classifi- cation No.	Disease.	No. of Deaths.
	Brought forward ...	229
100	Diseases of the pharynx ...	3
101	Diseases of the œsophagus ...	1
102	Ulcer of the stomach ...	1
104	Diarrhœa and enteritis (under 2 years) ...	6
105	Diarrhœa and enteritis (2 years and over) ...	1
108	Appendicitis and typhilitis ...	2
109	Hernia, intestinal obstructions ...	4
110	Diseases of the intestines ...	1
113	Cirrhosis of the liver ...	1
114	Biliary calculi ...	1
117	Simple peritonitis (non-puerperal) ...	4
118	Other diseases of the digestive system (cancer and tuberculosis excepted) ...	1

## VI.—NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA.

119	Acute nephritis ...	4
120	Bright's disease ...	1
122	Other diseases of the kidneys ...	1
127	Non-venereal diseases of the male genital organs ...	1
132	Salpingitis and other diseases of the female genital organs ...	1

## VII.—THE PUERPERAL STATE.

134	Accidents of pregnancy ...	1
136	Other accidents of labour ...	2
137	Puerperal septicæmia ...	2
138	Puerperal albuminuria and convulsions ...	1

## VIII.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.

142	Gangrene ...	1
145	Other diseases of the skin and annexe ...	1

## IX.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.

146	Diseases of the bones (tuberculosis excepted) ...	2
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## X.—MALFORMATIONS.

150	Congenital malformations (still-birth not included) ...	1
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## XI.—DISEASES OF EARLY INFANCY.

151	Congenital debility, icterus and sclerema ...	18
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## XII.—OLD AGE.

154	Senility ...	8
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## XIII.—AFFECTIONS PRODUCED BY EXTERNAL CAUSES.

155	Suicide by poison ...	2
159	Suicide by firearms ...	7
163	Other suicides ...	1
165	Other acute poisonings ...	3
166	Conflagration ...	3
168	Absorption of deleterious gases (conflagration excepted) ...	1
169	Accidental drowning ...	7
170	Traumatism by firearms ...	1
172	Traumatism by fall ...	1
173	Traumatism in mines and quarries ...	2
175	Traumatism by other crushing (vehicles, railways, landslides) ...	1
185	Fractures (cause not specified) ...	3

## XIV.—ILL-DEFINED DISEASES.

187	Ill-defined organic diseases ...	1
188	Sudden death ...	1
189	Cause of death not specified or ill-defined ...	14

Total ... 348

Deaths classified according to the international classification of causes  
of sickness and death.

Classification No.	Disease.	No. of Deaths.
1	Typhoid fever	5
4	Malaria	8
4a	Blackwater fever	2
10	Influenza	126
14	Dysentery	14
19	Other epidemic diseases	1
20	Purulent infection and septicæmia	3
24	Tetanus	8
28	Tuberculosis of lungs	73
29	Acute miliary tuberculosis	2
31	Abdominal tuberculosis	3
32	Pott's disease	1
34	Tuberculosis of other organs	2
35	Disseminated tuberculosis	3
37	Syphilis	13
40	Cancer and other malignant tumours of the stomach, liver	5
41	Cancer and other malignant tumours of the peritonæum, intestines, rectum	2
42	Cancer and other malignant tumours of the female genital organs	1
45	Cancer and other malignant tumours of other organs and of organs not specified	4
49	Scurvy	3
54	Anæmia, chlorosis	1
55	Other general diseases (trypanosomiasis)	1

60	Encephalitis	...	...	...	...	...	...	2
61	Simple meningitis	...	...	...	...	...	...	13
61c	Cerebro-spinal fever	...	...	...	...	...	...	6
64	Cerebral hæmorrhage, apoplexy	...	...	...	...	...	...	3
68	Other forms of mental alienation	...	...	...	...	...	...	18
69	Epilepsy	...	...	...	...	...	...	6
76	Diseases of the ears	...	...	...	...	...	...	1

77	Pericarditis	...	...	...	...	...	2
79	Organic diseases of the heart	...	...	...	...	...	13
82	Embolism and thrombosis	...	...	...	...	...	1
84	Diseases of the lymphatic system (lymphangitis, etc.)	...	...	...	...	...	1
85	Hæmorrhage, other diseases of the circulatory system	...	...	...	...	...	2

89	Acute bronchitis	...	...	...	...	...	4
90	Chronic bronchitis	...	...	...	...	...	1
91	Broncho-pneumonia	...	...	...	...	...	21
92	Pneumonia	...	...	...	...	...	192
93	Pleurisy	...	...	...	...	...	1
95	Gangrene of the lung	...	...	...	...	...	2
98	Other diseases of the respiratory system (tuberculosis excepted)	...	...	...	...	...	2

102	Ulcer of the stomach ...	...	...	...	...	...	1
104	Diarrhoea and enteritis (under 2 years) ...	...	...	...	...	...	3
105	Diarrhoea and enteritis (2 years and over)	...	...	...	...	...	1
106a	Bilharziasis ...	...	...	...	...	...	1
108	Appendicitis and typhilitis ...	...	...	...	...	...	5
109	Hernia, intestinal obstruction ...	...	...	...	...	...	3
110	Diseases of the intestines ...	...	...	...	...	...	1
112	Hydatid tumour of the liver ...	...	...	...	...	...	1
113	Cirrhosis of the liver ...	...	...	...	...	...	7
115	Other diseases of the liver ...	...	...	...	...	...	4
116	Diseases of the spleen ...	...	...	...	...	...	6
117	Simple peritonitis (non-puerperal)	...	...	...	...	...	7

Carried forward	...	...	612
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VI.—NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM  
AND ANNEXA.

Classifi- cation No.	Disease.	Brought forward ...	No. of Deaths.
119	Acute nephritis ...	...	612
120	Bright's disease ...	...	2
122	Other diseases of the kidneys and annexa ...	...	1
126	Diseases of the prostate ...	...	2
			1

VII.—THE PUERPERAL STATE.

135	Puerperal hæmorrhage ...	...	1
136	Other accidents of labour ...	...	1
137	Puerperal septicæmia ...	...	1

VIII.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.

142	Gangrene ...	...	4
144	Acute abscess ...	...	2

IX.—DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.

146	Diseases of the bones (tuberculosis excepted) ...	...	4
147	Diseases of the joints (tuberculosis and rheumatism excepted) ...	...	1

XI.—DISEASES OF EARLY INFANCY.

151	Congenital debility, icterus and sclerema ...	...	8
152	Other diseases peculiar to early infancy ...	...	2

XII.—OLD AGE.

154	Senility ...	...	3
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XIII.—AFFECTIONS PRODUCED BY EXTERNAL CAUSES.

165a	Venomous bites and stings ...	...	2
166	Conflagration ...	...	6
167	Burns (conflagration excepted) ...	...	5
168	Absorption of deleterious gases (conflagration excepted) ...	...	1
169	Accidental drowning ...	...	1
173	Traumatism in mines and quarries ...	...	2
175	Traumatism by other crushing (vehicles, railways, landslides, etc.) ...	...	1
176	Injuries by animals ...	...	1
179	Effects of heat ...	...	1
185	Fractures (cause not specified) ...	...	13
186	Other external violence ...	...	3
186a	Execution ...	...	6

XIV.—ILL-DEFINED DISEASES.

187	Ill-defined organic disease ...	...	1
189	Cause of death not specified or ill-defined ...	...	17

Total ... 705

Included in the foregoing are the following Indian and coloured deaths, classified as follows:—

Classifi- cation No.	Disease.	No. of Deaths. Indian. Coloured.
1	Typhoid fever ...	1
4a	Blackwater fever ...	2
10	Influenza ...	4
14	Dysentery ...	1
28	Tuberculosis of lungs ...	1
40	Cancer and other malignant tumours of the stomach, liver ...	1
42	Cancer and other malignant tumours of the female genital organs ...	1
64	Cerebral hæmorrhage, apoplexy ...	1
79	Organic diseases of the heart ...	2
91	Broncho-pneumonia ...	4
92	Pneumonia ...	3
93	Pleurisy ...	1
104	Diarrhoea and enteritis (under 2 years) ...	1
108	Appendicitis and typhilitis ...	1
109	Hernia, intestinal obstruction ...	1
126	Diseases of the prostate ...	1
142	Gangrene ...	1
144	Acute abscess ...	1
151	Congenital debility, icterus and sclerema ...	4
152	Other diseases peculiar to early infancy ...	1
154	Senility ...	1
176	Injuries by animals ...	1
187	Ill-defined organic disease ...	1
189	Cause of death not specified or ill-defined ...	1
	Total ...	18 22

TABLE 18.

Return of diseases and deaths (in-patients) in all Government hospitals  
for the year 1926.

## EUROPEANS.

Diseases.	Remaining in hospital at end of 1925.	Yearly total.		Total cases treated.	Remaining in hospital at end of 1926.
		Admis- sions.	Deaths.		
INFECTIVE DISEASES.					
Diphtheria ... ..	...	6	...	6	...
Dysentery—Amœbic ... ..	...	46	...	46	1
Bacillary ... ..	...	8	...	8	...
Enteric ... ..	5	38	6	43	7
Erysipelas ... ..	...	3	...	3	...
Gonorrhœa ... ..	...	2	...	2	...
Influenza ... ..	4	162	2	166	3
Malaria—(a) Tertian ... ..	4	439	1	443	5
(b) Quartan ... ..	...	38	1	38	1
(c) Æstivo-autumnal ... ..	3	127	1	130	1
(d) Chronic ... ..	...	10	1	10	...
(e) Blackwater ... ..	1	36	11	37	...
Measles ... ..	1	5	...	6	...
Malta fever ... ..	4	11	...	15	4
Pneumonia ... ..	3	82	18	85	1
Rheumatic fever ... ..	1	20	...	21	...
Septicæmia ... ..	1	2	2	3	...
Syphilis—(a) Primary ... ..	...	8	...	8	...
(b) Secondary ... ..	...	2	...	2	...
(c) Inherited ... ..	...	1	...	1	1
Tuberculosis ... ..	5	34	10	39	8
Whooping cough ... ..	...	1	...	1	...
Other infective diseases ... ..	...	6	...	6	...
INTOXICATIONS.					
Alcoholism ... ..	1	16	2	17	...
Morphinism ... ..	...	2	...	2	...
GENERAL DISEASES.					
Anæmia ... ..	...	5	...	5	...
Diabetes ... ..	...	13	2	13	2
Exophthalmic goitre ... ..	...	1	...	1	...
Hodgkin's disease ... ..	...	1	1	1	...
Purpura ... ..	...	1	...	1	...
Other general diseases ... ..	10	12	...	22	...
LOCAL DISEASES.					
Diseases of the nervous system—					
Sub-section 1—					
Neuritis ... ..	1	34	...	35	3
Meningitis ... ..	...	1	1	1	1
Myelitis ... ..	...	2	1	2	...
Encephalitis ... ..	...	1	1	1	...
Congestion of brain ... ..	...	2	...	2	...
Sub-section 2—					
Apoplexy ... ..	2	6	...	8	...
Paralysis ... ..	2	5	3	7	2
Chorea ... ..	...	6	...	6	1
Epilepsy ... ..	...	19	...	19	1
Neuralgia ... ..	...	2	...	2	...
Hysteria ... ..	...	17	...	17	...
Sub-section 3—Mental diseases—					
Melancholia ... ..	...	2	1	2	...
Other diseases of the nervous system ... ..	7	17	...	24	1
Diseases of the eye—					
Conjunctivitis ... ..	...	10	...	10	1
Keratitis ... ..	...	4	...	4	1
Ulceration of cornea ... ..	...	4	...	4	...
Iritis ... ..	...	6	...	6	...
Other diseases of the eye ... ..	2	22	...	24	1
Diseases of the ear—					
Inflammation ... ..	...	12	...	12	1
Other diseases ... ..	...	18	...	18	1
Diseases of the nose ... ..					
...	...	17	...	17	...
Carried forward ... ..	57	1,345	65	1,402	48

Diseases.	Remaining in hospital at end of 1925.	Yearly total.		Total cases treated.	Remaining in hospital at end of 1926.
		Admis- sions.	Deaths.		
Brought forward ... ..	57	1,345	65	1,402	48
Diseases of the circulatory system—					
Pericarditis ... ..	...	1	1	1	...
Endocarditis ... ..	...	7	5	7	1
Valvular mitral ... ..	...	12	3	12	...
Aortic ... ..	...	1	...	1	...
Pulmonary ... ..	...	2	2	2	...
Arterial sclerosis ... ..	...	2	1	2	...
Aneurism ... ..	1	1	1	2	...
Other diseases of the circulatory system ... ..	...	15	1	15	1
Diseases of the respiratory system—					
Laryngitis ... ..	...	12	1	12	1
Bronchitis ... ..	1	70	4	71	1
Broncho-pneumonia ... ..	...	5	1	5	...
Abscess of lung ... ..	...	1	...	1	...
Pleurisy ... ..	...	15	...	15	1
Empyema ... ..	...	6	1	6	1
Other diseases of the respiratory system ... ..	...	27	1	27	...
Diseases of the digestive system—					
Stomatitis ... ..	...	1	...	1	...
Caries of teeth ... ..	...	69	...	69	2
Sore throat ... ..	...	5	...	5	...
Inflammation of tonsils ... ..	...	238	...	238	...
Gastritis ... ..	2	49	...	51	2
Ulceration of stomach ... ..	...	10	...	10	2
Stricture of stomach ... ..	...	1	...	1	...
Dyspepsia ... ..	...	27	...	27	1
Enteritis ... ..	1	29	2	30	2
Appendicitis ... ..	6	245	3	251	9
Colitis ... ..	1	18	...	19	1
Ulceration of intestines ... ..	...	5	...	5	...
Hernia ... ..	3	38	1	41	1
Diarrhœa ... ..	...	11	...	11	...
Constipation ... ..	...	15	...	15	...
Colic ... ..	...	14	...	14	1
Hæmorrhoids ... ..	...	17	...	17	...
Hepatitis—acute ... ..	...	16	...	16	...
Abscess ... ..	...	8	1	8	...
Cirrhosis ... ..	...	3	...	3	...
Jaundice ... ..	...	5	...	5	...
Peritonitis ... ..	...	1	1	1	...
Ascites ... ..	...	3	...	3	...
Other diseases of the digestive system ... ..	8	38	...	46	3
Diseases of the lymphatic system—					
Splenitis ... ..	...	2	...	2	...
Inflammation of lymphatic gland ... ..	...	9	...	9	...
Lymphangitis ... ..	...	2	...	2	...
Diseases of the urinary system—					
Acute nephritis ... ..	...	8	2	8	2
Bright's disease ... ..	...	3	...	3	...
Pyelitis ... ..	...	9	...	9	...
Calculus ... ..	...	5	1	5	1
Renal colic ... ..	...	9	...	9	...
Cystitis ... ..	...	23	...	23	1
Vesical calculus ... ..	...	1	...	1	...
Suppression ... ..	...	1	...	1	...
Hæmaturia ... ..	...	9	...	9	...
Other diseases of the urinary system ... ..	...	7	...	7	...
Diseases of the generative system—					
Male organs—					
Urethritis ... ..	...	1	...	1	...
Stricture ... ..	...	13	...	13	2
Prostatitis ... ..	...	6	...	6	...
Hydrocele ... ..	...	4	...	4	...
Epididymitis ... ..	1	3	...	4	...
Abscess of testicle ... ..	...	2	...	2	...
Other diseases of male organs ... ..	...	8	1	8	1
Female organs—					
Ovaritis ... ..	...	15	...	15	1
Ovarian cyst ... ..	...	10	...	10	...
Endometritis ... ..	1	45	...	46	1
Displacement of uterus ... ..	...	4	...	4	...
Vaginitis ... ..	...	2	...	2	...
Dysmenorrhœa ... ..	...	8	...	8	...
Menorrhagia ... ..	...	9	...	9	...
Abortion ... ..	1	27	1	28	...
Retained placenta ... ..	...	1	...	1	...
Premature birth ... ..	...	1	1	1	...
Puerperal septicæmia ... ..	...	2	1	2	...
Mastitis ... ..	...	6	...	6	...
Abscess of breast ... ..	...	2	...	2	...
Other diseases of female organs ... ..	4	46	1	50	2
Carried forward ... ..	87	2,691	103	2,778	89

Diseases.	Remaining in hospital at end of 1925.	Yearly total.		Total cases treated.	Remaining in hospital at end of 1926.
		Admis- sions.	Deaths.		
Brought forward ... ..	87	2,691	103	2,778	89
Diseases of organs of locomotion—					
Osteitis ... ..	...	9	...	9	1
Arthritis ... ..	...	27	...	27	1
Bursitis ... ..	...	5	...	5	1
Other diseases of organs of locomotion	4	14	1	18	...
Diseases of connective tissue	...	3	...	3	...
Cellulitis ... ..	2	57	...	59	1
Abscess ... ..	3	56	...	59	...
Elephantiasis ... ..	1	...	...	1	...
Other diseases of connective tissue	...	14	...	14	...
Diseases of the skin—					
Urticaria ... ..	...	1	...	1	...
Eczema ... ..	1	3	...	4	...
Boil ... ..	...	13	...	13	...
Carbuncle ... ..	2	7	...	9	...
Herpes ... ..	...	4	...	4	...
Oriental sore ... ..	...	2	...	2	...
Scabies ... ..	...	2	...	2	...
Other diseases of the skin	...	19	...	19	...
Ulcers ... ..	...	8	...	8	1
Injuries—General ... ..	8	15	3	23	...
Local ... ..	5	406	...	411	17
Fractures and burns	3	67	2	70	1
Surgical operations ... ..	...	9	...	9	...
Major (219) ... ..	...	5	...	5	...
Minor (412) ... ..	1	16	...	17	...
Tumours ... ..	4	32	...	36	4
Malignant ... ..	2	14	19	16	2
Benign ... ..	...	14	...	14	1
Malformations ... ..	2	7	...	9	...
Poisons ... ..	1	17	1	18	2
Parasites—					
Trematoda (flukes) ... ..	...	1	...	1	...
Cestoda—					
Taenia solium ... ..	...	1	...	1	...
Taenia saginata ... ..	...	2	...	2	...
Nematoda—					
Ascaris ... ..	...	1	...	1	...
Bilharzia ... ..	...	11	...	11	1
Not otherwise classified	...	168	1	168	5
Senility ... ..	1	1	1	2	2
Curettage ... ..	...	25	...	25	...
Snake bite ... ..	...	2	...	2	1
Climatic bubo ... ..	...	2	...	2	...
Confinements ... ..	...	31	...	31	1
Undiagnosed ... ..	...	45	...	45	...
Totals ... ..	127	3,827	131	3,954	131

TABLE 19.

Return of diseases and deaths (in-patients) in all Government hospitals  
for the year 1926.

## NATIVES.

Diseases.	Remaining in hospital at end of 1925.	Yearly total.		Total cases treated.	Remaining in hospital at end of 1926.
		Admis- sions.	Deaths.		
INFECTIVE DISEASES.					
Cerebro-spinal fever ... ..	...	2	2	2	...
Chicken-pox ... ..	...	4	...	4	...
Dysentery—Amoebic ... ..	...	52	9	52	5
Bacillary ... ..	1	10	1	11	1
Enteric ... ..	1	12	4	13	2
Gonorrhœa ... ..	1	43	...	44	1
Influenza ... ..	4	301	14	305	1
Kala azar ... ..	...	4	...	4	...
Leprosy—(a) Nodular ... ..	...	2	...	2	...
(b) Anaesthetic ... ..	...	1	...	1	...
Malaria—(a) Tertian ... ..	7	223	2	230	4
(b) Quartan ... ..	...	41	1	41	2
(c) Estivo-autumnal ... ..	3	105	7	108	3
(d) Chronic ... ..	...	13	4	13	...
(e) Blackwater ... ..	...	2	1	2	...
Measles ... ..	...	1	...	1	...
Malta fever ... ..	1	1	...	2	...
Pneumonia ... ..	8	898	296	906	29
Rheumatic fever ... ..	1	24	...	25	5
Septicæmia ... ..	...	13	11	13	...
Trypanosomiasis (sleeping sickness) ... ..	1	3	1	4	...
Syphilis—(a) Primary ... ..	14	289	3	303	27
(b) Secondary ... ..	2	39	1	41	...
(c) Inherited ... ..	...	3	2	3	2
Tetanus ... ..	...	13	10	13	...
Tuberculosis ... ..	14	141	86	155	25
Yaws ... ..	...	4	...	4	...
Other infective diseases ... ..	...	7	...	7	...
INTOXICATIONS.					
Alcoholism ... ..	...	2	...	2	...
GENERAL DISEASES.					
Anæmia ... ..	...	7	...	7	...
Anæmia—pernicious ... ..	...	1	1	1	...
Purpura ... ..	...	5	1	5	...
Scurvy ... ..	12	86	5	98	12
Other general diseases ... ..	...	3	...	3	...
LOCAL DISEASES.					
Diseases of the nervous system—					
Sub-section 1—					
Neuritis ... ..	3	25	...	28	4
Meningitis ... ..	...	26	23	26	4
Myelitis ... ..	...	2	...	2	...
Encephalitis ... ..	...	4	3	4	1
Abscess of brain ... ..	...	2	2	2	...
Sub-section 2—					
Apoplexy ... ..	...	1	...	1	...
Paralysis ... ..	1	12	...	13	2
Epilepsy ... ..	3	18	3	21	...
Neuralgia ... ..	...	13	...	13	...
Sub-section 3—Mental diseases—					
Mania ... ..	...	1	...	1	...
Melancholia ... ..	...	1	...	1	...
Dementia ... ..	1	4	...	5	...
Delusional insanity ... ..	...	5	...	5	...
Other diseases of the nervous system ... ..	1	1	1	2	...
Diseases of the eye—					
Conjunctivitis ... ..	4	52	...	56	2
Keratitis ... ..	...	17	...	17	1
Ulceration of cornea ... ..	...	13	...	13	5
Iritis ... ..	1	8	...	9	...
Optic neuritis ... ..	...	2	...	2	...
Cataract ... ..	2	3	...	5	1
Other diseases of the eye ... ..	1	26	...	27	4
Carried forward ... ..	87	2,591	494	2,678	143

\* One Indian and one coloured.

Diseases.	Remaining in hospital at end of 1925.	Yearly total.		Total cases treated.	Remaining in hospital at end of 1926.
		Admis- sions.	Deaths.		
Brought forward ... ..	87	2,591	494	2,678	143
Diseases of the ear—					
Inflammation ... ..	1	6	...	7	...
Other diseases ... ..	...	9	...	9	...
Diseases of the nose ... ..	...	1	...	1	...
Diseases of the circulatory system—					
Pericarditis ... ..	...	6	4	6	...
Endocarditis ... ..	...	2	2	2	...
Valvular mitral ... ..	1	10	7	11	2
Pulmonary ... ..	...	2	...	2	...
Aneurism ... ..	...	1	...	1	...
Other diseases of the circulatory system ...	...	19	8	19	3
Diseases of the respiratory system—					
Laryngitis ... ..	...	15	...	15	...
Bronchitis ... ..	4	91	5	95	3
Broncho-pneumonia ... ..	3	12	3	15	1
Gangrene of lung ... ..	...	3	3	3	...
Emphysema ... ..	1	...	...	1	...
Pleurisy ... ..	...	20	...	20	2
Empyema ... ..	...	3	2	3	2
Other diseases of the respiratory system ...	...	7	1	7	...
Diseases of the digestive system—					
Stomatitis ... ..	1	5	...	6	...
Caries of teeth ... ..	...	7	...	7	...
Sore throat ... ..	...	4	...	4	...
Inflammation of tonsils ... ..	...	10	...	10	...
Gastritis ... ..	...	22	...	22	...
Ulceration of stomach ... ..	...	1	...	1	...
Hæmatemesis ... ..	...	3	...	3	...
Enteritis ... ..	...	10	1	10	1
Appendicitis ... ..	1	9	4	10	...
Colitis ... ..	...	4	...	4	...
Hernia ... ..	2	19	2	21	...
Diarrhœa ... ..	1	31	...	32	2
Constipation ... ..	...	27	...	27	...
Colic ... ..	1	13	...	14	...
Hæmorrhoids ... ..	1	4	...	5	2
Pancreatitis ... ..	...	1	1	1	...
Hepatitis—acute ... ..	...	8	1	8	...
Abscess ... ..	...	24	...	24	1
Cirrhosis ... ..	3	10	8	13	...
Jaundice ... ..	1	3	1	4	...
Peritonitis ... ..	...	9	8	9	...
Ascites ... ..	1	8	1	9	1
Other diseases of the digestive system ...	1	14	6	15	2
Diseases of the lymphatic system—					
Splentitis ... ..	...	9	1	9	...
Inflammation of lymphatic gland ... ..	1	5	...	6	...
Suppuration of lymphatic gland ... ..	...	3	...	3	...
Lymphangitis ... ..	5	20	...	25	2
Other diseases of the lymphatic system ...	2	8	3	10	2
Diseases of the urinary system—					
Acute nephritis ... ..	...	9	2	9	1
Bright's disease ... ..	...	2	1	2	...
Pyelitis ... ..	...	2	2	2	...
Calculus ... ..	...	1	...	1	...
Cystitis ... ..	...	10	...	10	...
Hæmaturia ... ..	...	1	...	1	...
Other diseases of the urinary system ...	...	8	1	8	...
Diseases of the generative system—					
Male organs—					
Urethritis ... ..	...	...	2	...	...
Stricture ... ..	...	1	...	1	...
Prostatitis ... ..	...	1	...	1	...
Hydrocele ... ..	1	3	...	4	...
Orchitis ... ..	...	16	...	16	...
Epididymitis ... ..	...	1	...	1	...
Other diseases of the male organs ...	...	2	1	2	...
Female organs—					
Ovaritis ... ..	1	1	...	2	...
Ovarian cyst ... ..	2	...	...	2	...
Endometritis ... ..	...	9	...	9	...
Displacement of uterus ... ..	...	1	...	1	...
Vaginitis ... ..	...	1	...	1	...
Menorrhagia ... ..	...	2	...	2	...
Leucorrhœa ... ..	...	1	...	1	...
Abortion ... ..	...	8	...	8	...
Delayed labour ... ..	...	5	...	5	...
Retained placenta ... ..	...	5	1	5	...
Puerperal septicæmia ... ..	...	1	...	1	1
Other diseases of the female organs ...	1	11	1	12	3
Carried forward ... ..	123	3,191	577	3,314	174

Diseases.	Remaining in hospital at end of 1925.	Yearly total.		Total cases treated.	Remaining in hospital at end of 1926.
		Admis- sions.	Deaths.		
Brought forward ... ..	123	3,191	577	3,314	174
Diseases of organs of locomotion—					
Osteitis ... ..	1	10	2	11	...
Arthritis ... ..	...	35	1	35	3
Spondylitis ... ..	...	3	...	3	...
Bursitis ... ..	3	13	...	16	...
Other diseases of organs of locomotion ...	1	46	1	47	1
Diseases of connective tissue—					
Cellulitis ... ..	8	93	7	101	11
Abscess ... ..	8	86	2	94	6
Elephantiasis ... ..	...	1	...	1	1
Other diseases of the connective tissue ...	4	24	...	28	7
Diseases of the skin—					
Urticaria ... ..	...	2	...	2	...
Eczema ... ..	...	19	...	19	...
Boil ... ..	...	5	...	5	...
Oriental sore ... ..	4	14	...	18	1
Scabies ... ..	...	2	...	2	...
Acne ... ..	...	1	...	1	...
Ulcers ... ..	21	151	...	171	18
Other diseases of the skin ... ..	1	32	1	33	4
Injuries—General ... ..	1	84	12	85	11
Local ... ..	62	842	4	904	52
Fractures and burns ... ..	24	114	22	138	12
Surgical operations—major ... ..	6	37	4	43	6
minor ... ..	...	84	...	84	5
Tumours—malignant ... ..	2	24	14	26	...
benign ... ..	2	10	...	12	...
Malformations ... ..	...	2	...	2	1
Poisons ... ..	1	9	2	10	...
Parasites—					
Protozoa ... ..	...	2	...	2	...
Trematoda (flukes) ... ..	...	1	...	1	...
Cestoda— <i>tenia saginata</i> ... ..	...	1	...	1	...
Nematoda—					
<i>Ascaris</i> ... ..	...	1	...	1	...
<i>Filariasis</i> ... ..	...	1	...	1	...
<i>Bilharziasis</i> ... ..	...	12	...	12	1
Not otherwise classified ... ..	...	191	...	191	4
Snake bite ... ..	2	17	4	19	1
Other bites ... ..	1	...	...	1	...
Gun-shot wounds ... ..	1	...	...	1	...
Onychia ... ..	1	...	...	1	...
Not diagnosed ... ..	2	...	...	2	...
Confinements ... ..	1	7	...	8	...
Ainhum ... ..	...	1	...	1	...
Totals ... ..	280	5,168	653	5,448	319

TABLE 20.

Table giving the number of beds in each Government hospital and Ingutsheni Mental Hospital, the daily average number of patients treated, the revenue and expenditure of each, and the approximate charge on public funds for each patient in hospital during 1926.

Name of hospital.	No. of beds.		Daily average of patients treated.			No. of nursing staff.	No. of native staff.	Gross expenditure.	Revenue.	Deficit of revenue over expenditure.	Approximate charge on public funds for each patient treated.
	White.	Coloured and native.	White.	Coloured and native.	Total white, coloured and native.						
Salisbury ...	60	100	56.60	77.60	134.20	42	59	18,726	7,831	10,895	£ 3 16 6
Bulawayo ...	83	67	51.05	67.40	118.45	38	52	16,021	9,582	6,439	2 11 11
Umtali ...	36	20	15.40	22.10	37.50	7	14	4,643	2,249	2,394	2 10 8
Gwelo ...	30	53	10.00	31.20	41.20	6	15	4,401	1,661	2,740	4 9 3
Fort Victoria ...	12	14	2.75	9.95	12.70	4	10	1,518	282	1,236	5 0 6
Gwanda ...	9	22	1.15	6.09	7.24	1	6	886	262	624	3 1 10
Enkeldoorn...	7	4	1.50	2.61	4.11	2	4	900	121	779	4 10 1
Gatooma ...	19	67	5.90	87.60	93.50	6	17	4,061	1,674	2,387	2 4 5
Shamva ...	18	19	2.26	11.11	13.37	3	13	1,561	397	1,164	3 14 7
Sinoia ...	10	7	2.77	6.40	9.17	3	7	1,053	368	685	2 10 0
Belingwe ...	8	13	.02	3.70	3.72	1	2	420	103	317	6 4 4
Ingutsheni Mental Hospital	68	250	37.34	176.73	214.07	12	20	7,666	1,317	6,349	18 16 3

TABLE 22.

Return of Government and pauper patients treated in Government hospitals during 1926.

Name of hospital.	Number of free patients.			Total number of units treated.			Cost of maintenance.	Loss of revenue represented, reckoning 5s. a day for whites, and 2s. 6d. a day for natives, plus extras.
	White.	Native.	Totals.	White.	Native and coloured.	Totals.		
Salisbury	263	622	885	5,685	15,841	21,526	£ s. d. 4,843 7 0	£ s. d. 3,497 15 4
Bulawayo	222	600	822	5,975	13,758	19,733	4,193 5 3	3,214 5 0
Umtali	41	171	212	1,670	3,336	5,006	1,126 7 0	949 19 4
Gwelo ...	54	220	274	969	7,078	8,047	1,508 16 3	1,192 1 0
Fort Victoria	38	167	205	295	3,015	3,310	565 9 2	420 6 8
Gwanda	12	81	93	59	1,032	1,091	172 14 10	145 15 0
Enkeldoorn	28	75	103	216	646	862	204 14 6	127 12 6
Gatooma	25	571	596	175	16,565	16,740	1,674 0 0	3,207 0 0
Shamva	19	92	111	231	2,550	2,781	405 11 3	376 10 0
Sinoia ...	14	44	58	117	691	808	131 6 0	111 17 6
Beipingwe	2	37	39	23	1,192	1,215	182 5 0	185 9 2
Ingutsheni Mental Hospital	51	202	253	18,751	50,434	69,185	6,053 13 9	10,383 7 6
Totals	769	2,882	3,651	34,166	116,138	150,304	21,061 10 0	23,811 19 0

TABLE 21.  
STATEMENT OF PROGRESS AT GOVERNMENT HOSPITALS FOR THE YEAR 1928.

Name of hospital.	Total number of patients maintained.	NO. OF PATIENTS MAINTAINED.						EXPENDITURE.														EARNINGS.				REVENUE RECEIVED.				REVENUE PER UNIT OF PATIENTS MAINTAINED.				TOTAL AMOUNT RECEIVED.																																																																																																																																																																																																																												
		Staff.		Patients.		Total.		Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	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Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.	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Provisional and contingent expenses.	Per unit of total.	Provisional and contingent expenses.</

\* These figures are inclusive of the amount of £201, representing value of produce from hospital farms and gardens.  
† In calculating this figure, the amount £201 as above is deducted from total expenditure.



