

Report of the Medical Officer of Health on the public health and sanitary circumstances of Johannesburg.

Contributors

Johannesburg (South Africa)

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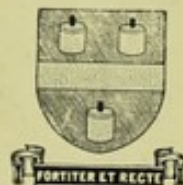
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M.O.H. Report,
1933—34.



City of Johannesburg.

REPORT of the MEDICAL OFFICER OF HEALTH on the PUBLIC HEALTH and SANITARY CIRCUMSTANCES of JOHANNESBURG during the Year 1st JULY, 1933—30th JUNE, 1934.

ARTHUR J. MILNE, M.B., Ch.B., D.P.H., D.T.M.

Medical Officer of Health; Hon. Cons. Medical Officer of the Rand Water Board; Medical Officer under Native Labour Regulations, Johannesburg Mining District; Lieut.-Colonel (Specialist Hygiene Officer), Union Defence Force; President, South African Health Officials' Association.

JOHANNESBURG,

NOVEMBER, 1934.




Johannesburg:

Printed by Radford, Adlington, Ltd., cor. Bissik and Marshall Streets

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Report of the Medical Officer of Health, 1933—1934.

Public Health Department,
City Hall,
Johannesburg,

November, 1934.

TO HIS WORSHIP THE MAYOR (Mr. Councillor M. FREEMAN) and
CITY COUNCILLORS OF THE CITY OF JOHANNESBURG.

GENTLEMEN,

I have the honour to present herewith my report of the health conditions of Johannesburg for the year 1933-34.

It is a pleasure to be able to record that the work of all members, professional, clerical and technical, of your Public Health Department has maintained the high level befitting the largest city in the Union of South Africa. Personally and officially I desire to acknowledge gratefully their valued assistance, often in difficult situations, and their loyalty both to the Council which they serve and to myself.

A detailed record for the year of inspections, etc., undertaken by the inspectorate staff is submitted on page 37.

I also desire to express my thanks in particular to the occupant of the Mayoral Chair during 1933-34 (Councillor D. Penry Roberts), and to the Chairman (Mr. Councillor S. Hancock) and members of the Public Health Committee who extended to me much kindly assistance and courtesy, and to all other Heads and Sub-Heads of Departments for their willing co-operation and assistance.

I have the honour to be, Gentlemen,

Your obedient servant,

A. J. MILNE,

Medical Officer of Health.

INDEX.

	PAGE		PAGE
Abattoir	26	Illegitimate Births	7
Altitude	7	Infantile Mortality	12
Ambulance Removals	26	Infantile Paralysis	23
Analysis of Foods	28	Infectious Diseases, Notifiable	21
Analysis of Milk	28	Influenza	24
Analysis of Water	28, 33	Insanitary Properties	35
Animals Slaughtered	26	Inspection of Foodstuffs	26, 27
Antea Sewage Farm	34	Inspections	37
Ante-Natal Nurses	16	Introduction	4
Anthrax	24	Isolation Hospital	25, 26
Area	7		
		Klipspruit Sewage Farm	34
Bacteriological Diagnosis	25		
Bio-Chemist	34	Latitude	7
Birth-rate	7	Leprosy	23
Births	7, 8	Licensed Places	38
Births, Illegitimate	7	Live Stock Market	26
Boreholes	27	Longitude	7
Bruma Sewage Farm	34		
		Malignant Disease or Cancer	18
Cancer	18	Maternity	12, 13, 14, 15, 16
Causes of Death	9, 10, 11	Measles	18
Census, 1931	7	Meat Inspection	26
Child Welfare	12, 13, 14, 15, 16	Membranous Croup	24
Climate	7	Meningitis	23
Clinics, Child	16	Milk Analysis	28
Closing Orders	35	Milk from Outside Districts	32, 33
Coloured Infantile Mortality	12	Milk Supply	28, 29, 30, 31, 32, 33
Cydna Sewage Farm	34	Miners' Phthisis	17
		Mines' Sanitation	34
Dairies	28, 29, 30, 31, 32, 33	Mortality Factors	10, 11
Death-rates	9, 10, 11	Mortality, Infantile	12
Death-rates, Foreign	9		
Deaths	9	Native Housing	8
Deaths, Causes of	9, 10, 11	Notifiable Diseases	21
Demolition Orders	35	Notification of Tuberculosis	25
Diarrhoeal Diseases	17	Nursery Health Class	15
Diphtheria	24	Nursing Homes	26
Encephalitis Lethargia	25	Ophthalmia Neonatorum	21
Enteric Fever	21, 22	Organic Diseases of Heart	17
Erysipelas	23	Orlando Native Township	8
		Outside Dairy Inspection	32, 33
Factors of Mortality	10, 11		
Fever Hospital	25, 26	Phthisis	25
Fish	26	Phthisis, Miners'	17
Food Inspection	26, 27	Plague Prevention	23
Foods, Analysis of	28	Plans, Inspection of	36
Foreign Death-rates	9	Pneumonia	17
		Poliomyelitis	23
Health Propaganda	16	Population	7
Health Visitors	13, 14, 16	Pre-school Children	15
Heart Disease	17	Prosecutions	38
Hospital Isolation	25, 26	Puerperal Septicæmia	12, 24

INDEX—(Continued).

	PAGE		PAGE
Rat Destruction	23, 24	Tuberculosis	25
Rate	7	Tuberculosis Notification	25
Rateable Value	7	Typhoid Fever	21, 22
Rietfontein Hospital	26	Typhus	24
Rock Drill Pneumonia	17		
		Underground Sanitation in Mines ...	34
Sanitary Inspectors—Record of Duties	27	Urban Areas Act	8
Scarlet Fever	24		
Score Cards—Dairies	29, 32	Vaal River	33
Sewage Disposal	33, 34	Veneral Disease	19, 20
Sewerage	33	Visible Dirt Tests	30, 32
Silicosis	17		
Slums	8	Water Analysis	27, 33
Small-pox	21	Water Supply	33
Springkell Sanatorium	26		
Staff	5, 6, 15	Zuurbekom	33
Swimming Baths	27	Zwartkopjes	33

CITY OF JOHANNESBURG.

PUBLIC HEALTH COMMITTEE, 1933-1934:

Councillor S. Hancock (Chairman).
 Councillor M. Freeman (Vice-Chairman).
 Councillor S. F. du Toit.
 Councillor L. Leveson.
 Councillor G. Martin.
 Councillor W. H. Port.
 Councillor R. Thompson.
 His Worship the Mayor (ex officio).

PUBLIC HEALTH DEPARTMENT.

STAFF.

Administrative and Office—

- 1 Medical Officer of Health: Arthur J. Milne, M.B., B.Ch., D.P.H., D.T.M.
- 1 Assistant Medical Officer of Health: John Joseph Middleton, M.B., M.C.P.S. (Ontario), D.P.H. (deceased 23/12/33).
- 1 Acting Assistant Medical Officer of Health: J. H. Rauch, M.B., B.Ch., D.P.H.
- 1 Chief Clerk: F. Thompson, Cert. R.S.I. (S.A.).
- 1 Typist Correspondent: Miss E. Oliver.
- 1 Licensing Clerk and Typist: Miss O. V. Joel.
- 1 Assistant Licensing Clerk and Typist: Miss A. M. Stewart.
- 1 Junior Clerk: W. van Derau.
- 1 Messenger: J. Boshoff.

Technical—

- 1 Bio-chemist: Harold Wilson, B.Sc. (Lond.), A.M.C.I.
- 2 Assistant Chemists: J. A. McLachlan and K. A. Murray.

Inspectorial Staff—

- 1 Chief Sanitary Inspector: G. Bidwell, Cert. R.S.I. (Eng.).
- 1 Plans Inspector: C. J. Crothall, Cert. R.S.I. (Eng.).

18 District Sanitary Inspectors:

A. Beale.	E. A. Smorenburg.	H. H. Alexander.
A. C. Lumsden	N. A. Meintjes.	C. R. Morrison.
(left 1/3/34).	E. C. Heather.	J. S. Pitman.
J. R. Sabiston	W. C. E. Lewis.	J. Smith.
(left 19/5/34).	H. Ballantyne.	R. H. Pope.
A. Patterson.	M. A. Elyat.	J. Wilson.
F. I. Hamilton	E. M. Coetzee.	R. W. G. Grant.
(left 30/5/34).		

All Certified Royal Sanitary Institute (S.A.).

2 Probationary Sanitary Inspectors:

A. H. Spargo.
 W. G. Howarth.

Both Certified Royal Sanitary Institute (S.A.).

- 1 Housing Inspector appointed to deal with Insanitary Properties under the Local Government Ordinance: P. Squires, Cert. R.S.I. (S.A.).

2 Mines Sanitation Inspectors:

F. Smith, Cert. R.S.I. (S.A.).
 D. Smith, Cert. R.S.I. (S.A.).

2 Food and Drug Inspectors:

S. G. Russell, Cert. R.S.I. (S.A.).
 J. S. Russell, Cert. R.S.I. (S.A.).

5 Dairy Inspectors:

W. C. Watson, Cert. R.S.I. (S.A.).
 G. Christie, Cert. R.S.I. (Eng.).
 J. W. Forreth, Cert. R.S.I. (S.A.).
 I. J. Distiller, Cert. R.S.I. (S.A.).
 J. H. Haskins, Cert. R.S.I. (S.A.).

Infectious Diseases and Disinfecting Station—

- 1 Infectious Diseases Inspector: A. C. Fraser, Cert. R.S.I. (S.A.).
- 2 Disinfecting Inspectors: H. J. Hancock and J. A. M. Bain.
- 1 Disinfecting Engineer: J. P. Jonas, six native assistants.

Maternity and Child Welfare—

- 1 Pediatric Officer:
B. G. v. B. Melle, M.B., B.Ch. (Oxford), F.R.C.S.E.
- 2 Obstetric and Ante-Natal Officers:
W. H. Maxwell, M.A., M.B., L.R.C.P., F.R.C.S.
F. K. Te Water, M.B., B.Ch., L.R.C.P., F.R.C.S.E.
- 1 Senior Health Visitor:
C. Morisse.
- 7 Health Visitors:

<ul style="list-style-type: none"> (1) M. G. Ferris. (2) E. Ide. (3) M. Craig. (4) G. K. Jordan. (5) T. G. White. (6) E. Orn. (7) L. W. Godfrey. 	}	<p>All Trained General Nurses and Midwives and all certificated Health Visitors and School Nurses, Royal Sanitary Institute.</p> <p>S.H.V., Cert. R.S.I. (S.A.).</p> <p>(2) Cert. R.S.I. (S.A.), Sanitary Inspector and Meat and Food Inspection.</p>
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- 5 Ante-Natal Nurses:

<ul style="list-style-type: none"> (1) M. S. Wilson. (2) R. E. Smith. (3) D. H. Vos. (4) A. Siebert. (5) A. Marshall. 	}	<p>All Trained General Nurses and Midwives.</p> <p>(1) Cert. R.S.I. (S.A.), Health Visitor and School Nurse.</p>
--	---	--
- 1 Supervisor, Nursery Health Class: Miss E. Brosius.
- 2 Assistants, Nursery Health Class.

Fever Hospital—

- 1 Physician: H. A. Looser, M.D.
- 1 Resident Medical Officer.
- Nursing Staff:
 - Permanent: 1 Matron, 3 Sisters.
 - Temporary: 1 Staff Nurse, 8 Probationers.
- Administrative: 1 Clerk.
1 Typist and Switchboard Attendant.
- General: 23 Natives.

Veneral Diseases Clinic—

- 1 Director: H. Gluckman, M.R.C.S. (Eng.), L.R.C.P. (Lond.)
- 1 Clinic Orderly (Male).
- 2 Nursing Sisters.

Plague Rat-catching Staff—

- 1 Senior Rodent Inspector: R. J. Fox.
- 1 Junior Rodent Inspector: N. J. Smith.
- 8 Rat-catchers.
- 7 Rat-catching Youths.

Report, 1st July, 1933—30th June, 1934.

CLIMATE AND RATEABLE VALUE.

Latitude.—26 degrees 11 minutes 44 seconds South.

Longitude.—1 hour 52 minutes 10 seconds East.

Mean Altitude.—5,850 feet.

Climate.—The days are bright and warm, the nights cool, and in winter often very cold. The following averages of Johannesburg records for thirty years are kindly supplied by H. E. Wood, Esq., Union Astronomer: Temperature, average maximum 70·1 degrees F., average minimum 49·7 degrees F.; highest recorded 93·6 degrees F. on 21st December, 1926, lowest recorded 20·8 degrees F. on 23rd July, 1926. Annual rainfall, 29·68 inches on 96 days. Relative humidity, 59·5 per cent. (average of sixteen years). Bright sunshine, 8·9 hours daily.

Area.—The area of the City of Johannesburg is 52,330 acres (*vide Government Gazette*, October, 1903), the extreme length $11\frac{1}{2}$ miles, extreme breadth $9\frac{1}{2}$ miles, extent of perimeter $41\frac{1}{2}$ miles.

Annual Rateable Value.—As assessed in accordance with Ordinance 13 of 1928, and representing "the full and fair price or sum which the same would realise if brought at the time of valuation to voluntary sale," was in 1933-34 £74,356,987.

The rate for 1933-34 was 5½d. in the £ on land. Rate produced £522,964 9s. 9d.; Special Road Rate, 1d. in the £1 on land, producing £89,555 6s. 8d. Total, £612,519 16s. 5d.

In 1933-34 the valuation was: Land, £23,217,421; Improvements, £51,139,566.

POPULATION.

		Census. 3rd May, 1931.		Estimated. 30th June, 1934.
Whites	...	199,203	...	222,000
Natives	...		...	166,000
Eurafricans	...		...	14,350
Asiatics	...		...	10,350
Total	...		...	412,700

BIRTHS.

From 1st July, 1933, to 30th June, 1934, the number of white births registered was 4,379, as compared with 4,668 and 4,510 in 1931-32 and 1932-33 respectively.

The *white birth-rate* was 19·72 per 1,000 for 1933-34, the two previous years being 25·64 and 21·19.

For England and Wales in 1933 the birth-rate was 14·4, in Pretoria 22·58, in Capetown 17·73, and in Durban 16·8 for 1933-34.

White Illegitimate Births.—These numbered 131, and constituted 2·99 per cent. of all births, as against 4·5 in England and Wales in 1933, 5·31 in Capetown, and 3·94 in Pretoria in 1933-34.

The *native and coloured births* registered during 1933-34 numbered 2,406, as against 1,873 and 2,148 in 1931-32 and 1932-33 respectively. But as the ratio of females to males in the native and coloured population is not known, no native census having been made since 1921, it would merely mislead to strike a birth-rate.

The numbers, however, indicate very clearly what continues to happen in Johannesburg, as elsewhere in urban areas in South Africa, which is that in spite of the Natives (Urban Areas) Act and its amendments, urban authorities are threatened with the complex problem of dealing with a large and increasing mass of detribalised natives, who are not only unnecessary for the city's domestic and industrial requirements, but whose presence in the city implies grave handicaps in respect of native housing and the clearance of slum properties. In this regard it is notable that the City Council is proceeding rapidly with the extension of "Orlando" Native Township, where ultimately housing accommodation will be available for some 40,000 natives. This township is developing into an almost ideal native town and one which the Council may take a very legitimate pride in. There will certainly not be anything of the kind in the Union, or indeed in Southern Africa, to compare with it, thanks to the long-sighted policy of the Council and its Native Affairs Committee. The completion of this township, together with existing native housing at Klipspruit Location, the Western and Eastern Native Townships, the Wemmer Barracks, and the single men's and single women's hostel at Wolhuter, besides providing the native races with healthy and congenial housing accommodation, will in large measure solve the slum problem in the City itself so far as native occupation is concerned, provided the influx of undesirable and unnecessary natives is suitably controlled by the Native Affairs Department of the Union Government.

DEATHS AND DEATH-RATES.

The deaths herein referred to are those of persons who died within the extended Municipal Area as defined by Proclamations 13 of 1902 and 46 of 1903:

DEATHS.

Year	Whites	Natives	Eurafricans	Asiatics	All Persons
1923-24	1,562	2,314	321	143	4,340
1924-25	1,568	2,213	345	142	4,268
1925-26	1,600	2,238	309	114	4,261
1926-27	1,801	2,621	354	139	4,915
1927-28	1,858	2,696	440	137	5,131
1928-29	1,989	2,795	304	143	5,231
1929-30	1,942	3,115	339	172	5,568
1930-31	2,038	3,349	357	181	5,925
1931-32	2,070	3,309	356	183	5,918
1932-33	2,181	3,178	354	210	5,923
1933-34	2,264	3,872	380	194	6,710

DEATH-RATES.

DEATH-RATES (excluding non-residents)	White		Natives	Eur- africans	Asiatics	All Persons
	Gross	*Corrected for Age and Sex distrib.				
1923-24	9.76	—	19.06	29.43	26.70	14.61
1924-25	9.31	—	17.75	28.53	23.90	13.72
1925-26	9.50	—	17.95	25.56	19.19	13.70
1926-27	10.46	—	18.77	27.57	22.78	14.85
1927-28	10.50	—	18.52	31.16	21.39	14.96
1928-29	11.05	—	19.07	17.88	20.42	14.92
1929-30	10.67	—	21.62	18.83	22.93	15.72
1930-31	10.22	—	22.32	17.85	22.62	15.70
1931-32	10.01	—	21.84	17.45	22.60	15.35
1932-33	10.22	*10.83	20.55	25.28	21.00	15.11
1933-34	10.19	*10.80	23.32	26.48	18.74	16.25

* Factor for correction 1.06.

DEATH-RATE IN BRITISH, COLONIAL AND FOREIGN CITIES.

Appended, for purposes of comparison, are particulars as to the "Death-rate per 1,000 from All Causes" in large cities in other parts of the world:—

Greater London (i.e., Metro- politan and City Police Districts)			JOHANNESBURG—		
11.2 (1933)			Whites	10.19 (1933-34)	10.19 (1933-34)
12.3			Natives	23.32	23.32
8.8 (1933-34)			Eurafricans	26.48	26.48
9.4			Asiatics	18.74	18.74
6.95			All Persons	16.25	16.25
9.21					
8.59					
8.63					

Except in regard to South African towns, these figures are taken from the Statistical Review of the Registrar-General for England and Wales, 1933. The European Death-Rate is considerably lower than that of the great towns of England and Wales and compares favourably with the European rates in the last five years.

CAUSES OF DEATH.

The causes of and ages at death and the local distribution are analysed in the usual Tables A to D for "Whites," "Natives," "Eurafricans" and "Asiatics" respectively. For reasons of economy, these voluminous tables have not, however, been printed, but are available for inspection.

FACTORS OF MORTALITY, 1931-32, 1932-33 AND 1933-34.

DISEASE		1931-32		1932-33		1933-34		DISEASE		1931-32		1932-33		1933-34	
		Deaths	Rates	Deaths	Rates	Deaths	Rates			Deaths	Rates	Deaths	Rates	Deaths	Rates
Enteric Fever ...	W.	22	0.10	18	0.08	32	0.14	Diseases of the Heart ...	W.	329	1.60	342	1.13	354	1.54
	N.	74	0.48	84	0.34	82	0.49		N.	130	0.85	153	0.98	207	1.24
	E.	4	0.19	6	0.42	6	0.41		E.	26	1.27	31	2.21	40	2.78
	A.	1	0.12	2	0.20	2	0.19		A.	21	2.59	12	1.22	21	2.02
Measles ...	W.	3	0.01	14	0.06	2	0.009	Acute Bronchitis ...	W.	29	0.14	25	0.11	25	0.11
	N.	7	0.04	6	0.03	6	0.03		N.	163	1.04	166	1.07	183	1.10
	E.	3	0.14	3	0.21	1	0.06		E.	33	1.66	18	1.28	14	0.97
	A.	—	—	1	0.10	—	—		A.	13	1.60	16	1.60	15	1.44
Scarlet Fever ...	W.	6	0.02	2	0.009	1	0.004	Chronic Bronchitis ...	W.	65	0.34	55	0.25	71	0.31
	N.	—	—	—	—	—	—		N.	22	0.14	21	0.13	39	0.23
	E.	—	—	—	—	—	—		E.	5	0.24	10	0.71	13	0.90
	A.	—	—	—	—	—	—		A.	5	0.61	7	0.70	4	0.38
Whooping Cough ...	W.	11	0.05	10	0.04	14	0.06	Pneumonia ...	W.	319	1.55	304	1.42	300	1.65
	N.	19	0.12	1	0.006	12	0.07		N.	1,085	7.16	968	6.26	1,131	6.81
	E.	2	0.09	—	—	1	0.06		E.	94	4.60	83	5.92	89	6.20
	A.	1	0.12	—	—	4	0.38		A.	50	6.17	62	6.20	40	3.86
Diphtheria and Croup ...	W.	16	0.07	10	0.04	16	0.07	Silicosis ...	W.	39	0.18	33	0.15	34	0.15
	N.	2	0.01	2	0.01	5	0.03		N.	5	0.03	14	0.09	5	0.03
	E.	—	—	1	0.07	2	0.13		E.	5	0.24	7	0.50	3	0.20
	A.	—	—	1	0.10	—	—		A.	—	—	—	—	—	—
Influenza ...	W.	52	0.25	60	0.28	41	0.18	Other Respiratory Diseases ...	W.	41	0.20	36	0.16	31	0.13
	N.	26	0.16	16	0.10	21	0.12		N.	38	0.25	42	0.27	25	0.15
	E.	—	—	1	0.07	2	0.13		E.	3	0.14	1	0.07	5	0.34
	A.	—	—	2	0.20	—	—		A.	2	0.24	2	0.20	3	0.28
Tuberculosis of Lungs ...	W.	64	0.31	51	0.23	63	0.28	Diarrhoea and Enteritis ...	W.	102	0.49	145	0.68	125	0.56
	N.	216	1.42	220	1.42	223	1.34		N.	489	3.22	524	3.39	772	4.65
	E.	17	0.83	20	1.42	25	1.17		E.	53	2.59	57	4.07	61	4.25
	A.	10	1.23	10	1.00	12	1.15		A.	26	3.20	31	3.10	38	3.67
Other Forms of Tuberculosis...	W.	7	0.03	7	0.03	6	0.02	Acute Nephritis and Bright's Disease ...	W.	93	0.45	109	0.51	89	0.40
	N.	40	0.26	29	0.18	40	0.24		N.	54	0.35	60	0.39	71	0.42
	E.	2	0.09	2	0.14	4	0.27		E.	5	0.24	5	0.35	15	1.04
	A.	—	—	—	—	—	—		A.	6	0.74	3	0.30	4	0.38
Cancer ...	W.	174	0.85	219	1.02	222	1.00	Congenital Malformation Premature & Early Infancy	W.	147	0.71	156	0.73	144	0.64
	N.	22	0.14	26	0.17	28	0.16		N.	223	1.46	213	1.37	220	1.32
	E.	9	0.44	10	0.71	4	0.27		E.	38	1.86	34	2.42	30	2.09
	A.	3	0.39	5	0.50	6	0.51		A.	22	2.71	19	1.90	20	1.93
Meningitis ...	W.	27	0.13	21	0.09	23	0.10	Violent Deaths	W.	131	0.64	150	0.70	161	0.72
	N.	45	0.29	39	0.25	46	0.27		N.	334	2.20	317	2.05	411	2.47
	E.	4	0.19	5	0.35	5	0.34		E.	19	0.93	19	1.36	19	1.32
	A.	2	0.24	3	0.30	—	—		A.	7	0.86	8	0.80	6	0.57
Cerebral Haemorrhage and Softening	W.	58	0.28	54	0.25	67	0.30		W.	—	—	—	—	—	—
	N.	15	0.09	9	0.05	12	0.07		N.	—	—	—	—	—	—
	E.	4	0.19	6	0.42	10	0.68		E.	—	—	—	—	—	—
	A.	3	0.37	1	0.10	3	0.28		A.	—	—	—	—	—	—

The following observations are suggested by an inspection of this table:—

- (1) That during 1933-34 the chief factors of mortality were:—

(a) *For Whites*.—Heart diseases (354), pneumonia (300), cancer (222), violent deaths (161), congenital debility (144), diarrhoea and enteritis (125), acute nephritis and Bright's disease (89), chronic bronchitis (71), cerebral hæmorrhage (67), tuberculosis of lungs (63), influenza (41), silicosis (34), enteric fever (32), other respiratory diseases (31), acute bronchitis (25), and meningitis (23).

(b) *For Natives*.—Pneumonia (1,131), diarrhoea and enteritis (772), violent deaths (411), tuberculosis of lungs (223), congenital debility (220), heart diseases (207), acute bronchitis (183), enteric fever (82), acute nephritis and Bright's disease (71), meningitis (46), other forms of tuberculosis (40), chronic bronchitis (39), cancer (28), influenza (27), other respiratory diseases (25), cerebral hæmorrhage (12), and silicosis (5).

(c) *For Eurafrians*.—Pneumonia (89), diarrhoea and enteritis (61), heart diseases (40), congenital debility (30), tuberculosis of lungs (25), violent deaths (19), nephritis (15), acute bronchitis (14), chronic bronchitis (13), cerebral hæmorrhage (10), and enteric fever (6).

(d) *For Asiatics*.—Pneumonia (40), diarrhoea and enteritis (38), heart diseases (21), congenital debility (20), acute bronchitis (15), tuberculosis of lungs (12), violent deaths (6), chronic bronchitis (4), and acute nephritis (4).

(2) That the comparison with the two previous years is as follows:—

(a) *As regards Whites*, the principal increases are in respect of heart diseases, 354 as compared with 342 in 1932-33 and 329 in 1931-32; chronic bronchitis, 71 as compared with 55 in 1932-33 and 65 in 1931-32; enteric, 32 as compared with 18 in 1932-33 and 22 in 1931-32; and cerebral hæmorrhage, 67 as compared with 53 in 1932-33 and 58 in 1931-32. The principal decrease is in respect of diarrhoeal diseases, 125 as compared with 145 in 1932-33; and nephritis, 89, as compared with 109 in 1932-33.

(b) *As regards Natives*, the principal increases are in respect of diarrhoeal diseases, 772 as compared with 524 in 1932-33 and 489 in 1931-32; pneumonia, 1,131 as compared with 968 in 1932-33 and 1,085 in 1931-32; violent deaths, 411 as compared with 315 in 1932-33 and 334 in 1931-32. Chronic bronchitis also shows an increase, the figure being 39 as compared with 21 in 1932-33 and 22 in 1931-32, whilst other respiratory diseases, with 25 deaths, compares very favourably with 42 in 1932-33 and 38 in 1931-32.

(c) *As regards Eurafrians* there is nothing worthy of comment except a slight decrease in respect of acute bronchitis and an increase in nephritis and heart diseases.

(d) *As regards Asiatics*, there is an increase in respect of heart diseases and diarrhoea and enteritis, and a big decrease in pneumonia from 62 in 1932-33 to 40 in 1933-34.

Acute lung conditions are still, as always they have been, the greatest bug-bear in our general mortality rate. A total of 1,699 deaths from pneumonia and other acute lung conditions in all races is appalling, but not above the average for many years past.

Reduction of this percentage mortality sounds feasible, but is it, considering our vast daily variations in temperature. One sometimes wonders. The incidence and mortality rate of these diseases in these parts under climatic circumstances, such as we experience *nolens volens* is not likely to decrease very much until such time as an immunising agent applicable to all and sundry races is discovered by our research workers, or when curative measures revolutionise our present day methods of treatment. If prevention and cure of these conditions could be attained, it would be very wonderful. Perhaps one day research into the prevention and cure of these conditions will help us out. Let us hope that it will be soon. Still we can, if we would, attempt to minimise the evil. To do so means what? Briefly I would put it: (1) sleep out, (2) sleep in blankets, (3) discard superfluous clothing at all times, (4) eat and drink rationally, (5) cold or tepid rather than warm baths, (6) salt water nasal and throat douches during the cold weather, (7) stout footwear and thicker socks of heat retaining materials in winter, (8) a day or two "off" when "flu" feelings encompass. And the rest I think must be in the lap of the gods since curative and preventive potions are not yet.

INFANTILE MORTALITY, MATERNAL MORTALITY AND MATERNITY AND CHILD WELFARE MEASURES.

Infantile Mortality, i.e. deaths of infants under one year per each 1,000 births registered, was: Whites 82.43, Eurafrians 213.06 and Asiatics 174.25.

The following table shows the white infantile mortality rate in recent years:—

1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1931-32	1932-33	1933-34
78.55	74.01	83.29	83.39	72.77	78.62	79.08	76.61	80.04	82.43

This rate is slightly higher, though not sufficiently so as to warrant comment. Possibly the slight increase may be due to economic circumstances and the considerable influx of population from the country side, which flow is increasingly difficult to stem. The survival of country born children in their natural surroundings is, one thinks, more likely than when country born children are transplanted into crowded urban areas, where living conditions, often in single rooms occupied by the whole family are the rule rather than the exception.

The small increase in any case does not detract in the least from the Council's increasing Maternal and Child Welfare activities.

MATERNAL MORTALITY.

	Puerperal Sepsis per 1,000 Births		Other Causes per 1,000 Births		All Causes per 1,000 Births	
	Joh'burg	E. & W.	Joh'burg	E. & W.	Joh'burg	E. & W.
1924-25	1.26	1.39 (1924)	4.79	2.50	6.06	3.89
1925-26	1.50	1.56 (1925)	4.00	2.51	5.50	4.07
1926-27	1.72	1.59 (1926)	1.97	2.52	3.69	4.11
1927-28	3.33	1.56 (1927)	1.90	2.55	5.23	4.11
1928-29	1.49	1.79 (1928)	2.35	2.63	3.85	4.42
1929-30	1.07	1.80 (1929)	2.77	2.53	3.85	4.33
1930-31	1.42	1.92 (1930)	1.01	2.48	2.44	4.40
1931-32	1.05	1.66 (1931)	1.89	2.45	2.94	4.11
1932-33	1.55	1.61 (1932)	0.22	2.60	1.77	4.21
1933-34	3.65	1.82 (1933)	4.33	2.68	7.99	4.51

The above table shows the Maternal Mortality Rate for Puerperal Sepsis, Other Causes and All Causes. A jump in the average rate of about three deaths per thousand births in recent years to about eight deaths per thousand births in 1933-34, must give food for serious thought. Admittedly the rate is abnormally high both in regard to Puerperal Sepsis and Other Causes.

The "Other Causes" are explainable, at least to some extent, when we find that of the 16 deaths in this category no less than 11 were occasioned by non-preventable conditions, i.e. 4 Ectopic Gestations, 4 Post Partum Hæmorrhage, 2 Placenta Prævia, and 1 Cæsarian Section.

Examining the tabulated figures of Puerperal Sepsis cases we find that extraordinarily high figures were recorded in 1927-28, and now again in 1933-34. In both these periods Scarlet Fever was epidemic in Johannesburg, and it is a reasonable deduction that in the presence of large streptococcal infections such as Scarlet Fever, the maternal mortality rate on account of septic complications of child-birth is more than likely to show a substantial increase over years when streptococcal infections are not prevalent.

MATERNAL AND CHILD WELFARE MEASURES.

1.—GENERAL SUMMARY.

Year	Number of		Mothers referred to		Infants sent to Children's Hospital and O.P.D.	Infants Reported to Children's Aid Society	Mothers Attending		Cases Referred to Pediatric Officer	Ante-Natal Clinic	Assisted at Clinics
	First Visits	Re-visits	Maternity Hospital	Ante-Natal Nurse			Welfare Clinics	Health Visitors' Office			
1932-33 ...	2,380	9,202	94	305	501	25	43,693	321	787	2,093	15,204
1933-34 ...	2,559	10,210	95	321	415	12	44,382	246	1,225	1,935	13,708

2.—BIRTHS INVESTIGATED.

Year	Legitimate		Illegitimate		Full Time		Premature		Stillborn	
	1932-33 ...	2,350	1932-33 ...	36	1932-33 ...	2,334	1932-33 ...	52	1932-33 ...	20
1933-34 ...	"	2,640	"	41	"	2,617	"	64	"	27

Year	Attended by			Condition of Mother				Condition of Infant				Condition of Home						
	Doctor	Midwife		Friends	Good *	Fair	Poor	Sick	Good	Fair	Poor	Sick	Dead	Good	Fair	Bad	Clean.	Dirty
		Trained	Untrained															
1932-33	285	1,626	744	40	2,283	70	3	24	2,317	40	3	3	23	1,911	435	34	2,369	11
1933-34	404	2,022	639	8	2,579	61	6	19	2,563	56	7	16	39	2,190	441	38	2,655	14
								(Dead 1)										

† Unattended 1.

3.—METHODS OF FEEDING.

Breast Milk	Cow's Milk	Tinned Milk	Breast and Complemental	Other Foods	Feeding Bottles				Comforter Used
					Pattern		Condition		
					Good	Bad	Good	Bad	
2,473	40	32	106	30	85	2	85	2	743

MATERNAL AND CHILD WELFARE MEASURES.

4.—NATIVE TOWNSHIPS.

First Visits	Re-visits	Welfare Clinics and Office Attendances	Feeding		Comforter Used
			Breast	Other	
Health Visitors 813	Health Visitors 9,609 Native Nurses 9,593	5,648	730	35	152

5.—COLOURED (October, 1933, to June, 1934.)

First Visits	Re-visits	Legitimate	Illegitimate	Full Time	Premature.	Attended by		
						Trained Midwife	Untrained Midwife	Friends No One
118	716	92	28	117	1	15	92	8 3

These tables reveal the extension of the Child and Maternal Welfare work of the Department. Comparing the figures for 1932-33 with those for 1933-34 we find that in the latter year period there were 2,669 first visits as compared with 2,380 in 1932-33, there were 10,210 revisits as compared with 9,202, there were 321 cases referred to Ante-Natal Nurses as compared with 305 cases, there were 415 infants sent to the Children's Hospital and Out-Patient Department as compared with 501, there were 44,382 attendances at Clinics as compared with 43,693, and there were 1,935 attendances at Ante-Natal Clinics as compared with 2,093. In other words, Child and Maternal work in the Department is an ever and constantly increasing factor in the Department's activities. The figures demonstrate indisputably an increasingly greater demand for the services of your Maternal and Child Welfare staff and appreciation of the Clinic provisions afforded. That demand is not only a tribute to the services which the Council provides, but an appreciation of the services of the staff.

Breast Feeding.—In previous reports comment has been made in regard to the percentage of breast-fed infants. In 1932-33, the percentage was within a fraction of 96 per cent. and in the year under review it is 92.2 per cent. This high percentage of breast-fed infants is to a considerable extent the result of persuasion by the staff and their persistence in advocating the breast feeding by all mothers of their infants. The effect of the provision of accessory foods for mothers at the Clinics has no doubt also been a factor in the maintenance of the percentage of breast-fed infants. Whatever the stimulus, the results are extremely satisfactory and gratifying.

STAFF AND CLINICS.

Health Visitors.—The Council employs one Senior Health Visitor and seven Health Visitors, five of whom are entirely engaged on post-natal measures among the European population. All these Health Visitors are qualified general nurses and midwives, and in addition hold the certificate of the Royal Sanitary Institute for Health Visitors and School Nurses. Infant Clinics are held weekly at the Central Clinic (New Market Buildings), Nursery Health Class, Sixth Street, Vrededorp, Masonic Hall, Jeppestown, Oddfellows' Hall, Turffontein, and Newlands Viljoen Saal. During the year the Senior Health Visitor, who had in 1929-30 established Native Clinics in the Council's Native Townships, received the assistance of an additional Health Visitor, devoting her whole time to native infant welfare. This native welfare work is progressing and these Clinics are now well established and promise to exert a very beneficial influence on the native infantile mortality. The attendances at all Clinics and the activities of all the Health Visitors are incorporated in the foregoing table. At all the European Clinics tea is provided for the attending mothers by the Council, and nursing mothers are provided by the Council with foodstuffs and medical comforts when necessary. Very considerable amounts of such foodstuffs and medical comforts are provided. The Council also provides large quantities of pasteurised milk delivered at the home to poor mothers for consumption by infants who are not breast-fed or who have passed the breast-fed stage up to two years of age. The expenditure for pasteurised and acidophilus milk so supplied during the year was £2,014 6s. 3d. Standard layettes are also provided for destitute mothers at the Central Clinic, where the mothers are provided with the necessary material free, but are required to attend to make up the materials.

The Council's Pediatric Officer (Dr. B. G. v. B. Melle) attends all the Clinics and deals with all infants who require specialised dietetic and medical attention.

Pre-School Children.—This aspect of Child Welfare has received considerable attention during the year. From one Nursery Health Class conducted by the Supervisor, Miss Brosius, who is specially qualified in this class of work, and in a somewhat unsuitable public hall, the Department has extended to four such classes in Vrededorp, Jeppe, Ophirton and Auckland Park. The first-named class is conducted in a building erected at a cost of £600 by the Council and specially designed to meet the requirements of pre-school children. The others are held in temporary premises as yet, but it is hoped that in the near future they will also be conducted in specially designed buildings erected by the Council. The children attending these classes, all of whom are the children of indigent parents and between 2 to 7 years, are given simple health exercises and are instructed in such simple hygiene measures as head and body cleanliness, teeth cleaning, etc., etc., interspersed with occupational instruction, games, physical exercises and general kindergarten. They receive a daily ration of one-third of a pint of pasteurised milk, and are weighed and have their body measurements taken at regular and frequent intervals. Their physical defects are dealt with by the Department's Pediatric Officer and their mental abnormalities by its Psychiatrist. One is glad to report that the care of this very much neglected, in the past, pre-school age is in process of rapid and extensive development, and that the Provincial Government is impressed with the necessity, so much so, that it has in mind the desirability of subsidising local authorities who have or are prepared to establish pre-school classes.

Ante-Natal Nurses.—The Council employs four Ante-Natal Nurses, stationed at two Centres—Western and Central. These Ante-Natal Nurses are qualified general nurses and midwives. They extend ante-natal care to expectant mothers in the homes, shepherd these mothers to the Ante-Natal Clinics, arrange for their confinement in the Queen Victoria Maternity Hospital when desired, or themselves conduct the confinements in the homes. This branch of the work is extending rapidly, as will be seen by the comparative figures in the table, and has become a great boon to poor expectant mothers, who in the past have had to submit in their confinements to the tender mercies of the crude and unqualified midwife.

Ante-Natal Clinics.—Two Ante-Natal Clinics are conducted on Tuesday and Friday afternoons at the New Market Buildings. The attendance, shown in the General Summary above, continues to increase, and expectant mothers are now clamouring to avail themselves of this service, which is, of course, designed to ensure safe confinements. Two Specialist Obstetric Officers attend the Ante-Natal Clinics, and, besides carrying out the necessary procedure for the examination of expectant mothers attending the Clinics, render assistance, when necessary, at the confinements which the Ante-Natal Nurses conduct. During the year the Ante-Natal Nurses attended 343 confinements, paid 3,593 post-confinement visits, and made 2,759 visits to expectant mothers in their homes prior to their confinements. Students of the Witwatersrand University attend both the Ante-Natal Clinics and the confinements conducted in the homes of the Ante-Natal Nurses. Such attendance is an integral part of the medical curriculum, and affords facilities to medical students, which they are increasingly taking advantage of. These facilities are now extended to pupil midwives receiving their training at the Queen Victoria Hospital. Pupil midwives are availing themselves of the facilities afforded with enthusiasm.

In the past year it has also been possible to arrange for the attendance at confinements of medical students in the Council's Native Townships by the co-operation of the Manager of the Native Affairs Department.

This arrangement has resulted in increased facilities for pupil midwives attending confinements conducted by the Council's Ante-Natal Nurses. The teaching of obstetrics both to students and pupil midwives has, in consequence, been placed on a satisfactory basis, thanks to the facilities now afforded by the Council and its Welfare service.

HEALTH PROPAGANDA.

The Department's activities on propaganda lines were continued during the year. The principal propaganda measures were:—

- (a) Distribution of leaflets on health subjects.
- (b) Preparation of new original posters illustrating various health subjects.
- (c) Distribution of booklets on health matters. These publications include "Care of Mother and Child," "Your Health, Look into it" (a booklet dealing with every aspect of public health), "Prevention and Destruction of Rats and Mice," "The House or Typhoid Fly." It may be mentioned that by arrangement with the Registrar of Births and Deaths, a copy of the booklet "Care of Mother and Child," is handed to every person registering a birth.
- (d) Advertisements in the local papers at some cost, illustrating various public health matters. More especially was public attention called to clean milk production by means of illustrations, and the Press were good enough to elaborate by appropriate articles. Indeed, the Press have assisted greatly in this connection.
- (e) An elaborate and comprehensive Public Health Exhibit was staged at the Witwatersrand Agricultural Show during Easter week, in a large hall placed at the Department's disposal free by the Secretary of the Witwatersrand Agricultural Society. The Exhibit included a large Dairy Section and Sections dealing with Rodent Destruction, Fly Destruction, Unsound Foodstuffs, House construction and drainage, Bacteriology and Parasitology, General Sanitation, Maternal, Infant and Pre-School Child Welfare, Red Cross methods, etc., etc. A special feature was a Bioscope Hall where two films, prepared under the direction of the Acting Assistant Medical Officer of Health, were shown at frequent intervals. The films depicted Clean Milk Production in City Dairies, and Field Rodent Destruction methods. Large numbers of the public availed themselves of the opportunity of learning public health methods under the instruction of the Department's Health Inspectors, who willingly gave their services as demonstrators even on public holidays. The Exhibit was an unqualified success.

PNEUMONIA.

The death-rates per 1,000 from this disease are as follows:—

	Whites	Natives	Eurafricans	Asiatics	England and Wales
1924-25	0.71	2.82	2.31	2.86	1.00 (1924)
1925-26	1.06	4.42	4.71	3.03	0.95 (1925)
1926-27	1.13	4.68	6.07	5.73	0.82 (1926)
1927-28	1.47	5.09	4.46	5.30	0.94 (1927)
1928-29	1.50	5.48	3.29	7.00	0.78 (1928)
1929-30	1.74	7.03	4.77	7.66	1.10 (1929)
1930-31	1.39	7.03	4.55	5.75	0.69 (1930)
1931-32	1.55	7.16	4.60	6.17	0.80 (1931)
1932-33	1.42	6.26	5.92	6.20	0.73 (1932)
1933-34	1.65	6.81	6.20	3.86	0.74 (1933)

This mortality rate is higher for Whites than it has been, with the exception of 1929-30, in the last ten years. It will inevitably be so until some wizard determines a prophylactic and a curative remedy for acute lung conditions. Already in this report I have said that the time to expect such improvement is "not yet."

MINERS' PHTHISIS, ROCK DRILL PNEUMONIA OR SILICOSIS.

41 deaths (33 Whites, 5 Natives and 3 Eurafricans) were registered during 1933-34, as compared with 54 (33 Whites, 14 Natives and 7 Eurafricans) and 51 (41 Whites, 5 Natives and 5 Eurafricans) in 1932-33 and 1931-32 respectively. The smaller white mortality, taking into account the larger numbers employed, is encouraging and is a tribute to the efficiency of mine preventive measures.

ORGANIC DISEASES OF THE HEART.

These heart affections include pericarditis, endocarditis, angina pectoris, valvular disease and other diseases of the circulatory system. The deaths recorded during the year 1st July, 1933, to 30th June, 1934, were 354 for Whites, as compared with 329 and 342 for the two previous years. This figure represents a rate of 1.54 per 1,000 as against 3.304 for England and Wales in 1933. For Natives the rate was 1.24; for Eurafricans, 2.78; and for Asiatics, 2.02.

DIARRHOEAL DISEASES.

The following are the mortality rates per 1,000 of population for the period under notice:—

	Whites	Natives	Eurafricans	Asiatics	England and Wales.
1924-25	0.64	2.03	5.93	4.20	0.19 (1924)
1925-26	0.59	2.30	5.54	2.69	0.21 (1925)
1926-27	0.99	3.02	4.74	3.11	0.21 (1926)
1927-28	0.59	2.32	4.67	2.96	0.15 (1927)
1928-29	0.63	2.52	3.00	1.42	0.16 (1928)
1929-30	0.65	3.33	2.72	2.53	0.17 (1929)
1930-31	0.78	4.10	3.10	3.87	0.13 (1930)
1931-32	0.49	3.22	2.59	3.20	0.13 (1931)
1932-33	0.68	3.39	4.07	3.10	0.14 (1932)
1933-34	0.56	4.65	4.25	3.67	0.13 (1933)

This rate is appreciably lower for Europeans and, with the exception of 1931-32, compares favourably with the rates for the past decennium. The rates for other nationalities are more or less normal, the native rate excepted, which is not unduly high considering native influx into the City.

MALIGNANT DISEASE OR CANCER.

During 1933-34, the deaths from cancer numbered 259 Whites (including 37 non-residents), 39 Natives (including 11 non-residents), 4 Eurafrican and 6 Asiatics, as compared with 252 Whites (including 33 non-residents), 39 Natives (including 13 non-residents), 10 Eurafricans and 5 Asiatics in 1932-33 and 205 Whites (including 31 non-residents), 39 Natives (including 13 non-residents), 12 Eurafricans (including 3 non-residents) and 3 Asiatics (including 1 non-resident) in 1931-32.

Of the 259 Whites, 132 were males and 127 females, and 253 were over the age of 35 years, the rates being 1.00, 1.02 and 0.85 for the three years respectively, as compared with 1.52 per 1,000 for England and Wales in 1933.

In the following table is set forth the part of the body affected:—

	Whites			Natives			Eurafricans			Asiatics		
	1931-32	1932-33	1933-34	1931-32	1932-33	1933-34	1931-32	1932-33	1933-34	1931-32	1932-33	1933-34
Stomach	98	114	88	13	11	9	3	1	1	3	3	4
Womb	24	48	41	3	5	6	5	4	—	—	—	1
Breast	23	27	24	2	2	3	1	1	1	—	—	—
Liver	9	5	16	13	17	12	3	—	1	—	2	—
Neck and Throat ...	8	13	15	2	2	—	—	—	—	—	—	—
Mouth and Jaw ...	4	4	4	—	—	1	—	2	1	—	—	—
Tongue	4	1	8	1	—	—	—	—	—	—	—	—
Lung	5	7	11	1	—	1	—	1	—	—	—	—
Rectum	8	8	6	1	1	1	—	—	—	—	—	1
Prostate	1	3	15	3	—	1	—	—	—	—	—	—
Head and Face ...	2	—	2	—	1	—	—	—	—	—	—	—
Bladder	1	7	12	—	—	1	—	—	—	—	—	—
Bones	—	—	1	—	—	—	—	—	—	—	—	—
Colon	5	6	8	—	—	2	—	1	—	—	—	—
Spleen	1	—	—	—	—	—	—	—	—	—	—	—
Legs and Feet ...	—	—	—	—	—	1	—	—	—	—	—	—
Hand and Arm ...	—	—	1	—	—	—	—	—	—	—	—	—
Penis	1	1	1	—	—	—	—	—	—	—	—	—
Chest	—	1	—	—	—	—	—	—	—	—	—	—
Eye	—	—	1	—	—	—	—	—	—	—	—	—
Kidney	4	3	1	—	—	—	—	—	—	—	—	—
Glands	—	1	—	—	—	—	—	—	—	—	—	—
Brain	2	1	—	—	—	—	—	—	—	—	—	—
Spine	—	2	—	—	—	—	—	—	—	—	—	—
Unspecified	5	—	4	—	1	1	—	—	—	—	—	—
Total	205	252	259	39	39	39	12	10	4	3	5	6

Whilst the incidence of Malignant Disease shows no increase, it is still more than desirable that persons of 35 years or over should on the least suspicion seek skilled medical advice as consistently advocated by the National Cancer Association of South Africa.

MEASLES.

The death-rates per 1,000 were as follows:—

	1929-30	1930-31.	1931-32	1932-33.	1933-34.
Whites	0.005	0.02	0.01	0.06	0.009
Natives	0.02	0.006	0.04	0.03	0.03
Eurafricans	0.05	—	0.14	0.21	0.06
Asiatics	—	0.12	—	0.10	—

VENEREAL DISEASE.

186 White and 2,727 Coloured cases of Syphilis and other venereal diseases from Johannesburg were treated at Rietfontein Hospital during the year 1933-34.

Though the Union Health Department, on account of financial stringency, is still unable to accede, for purposes of part refund under the Public Health Act, to the Council's request for approval of Non-European Clinics, the Council decided to continue to forego the question of refunds and to maintain its Non-European Clinic for Native women and children entirely at its own expense. On two afternoons a week suitable accommodation in the Out-patient Department of the Non-European Hospital is available. The Clinic, opened in May, 1931, is functioning admirably under the supervision of the Director. Though the number of patients and attendances is not yet formidable, the Clinic has certainly justified its establishment and, as it becomes more widely known and appreciated, its usefulness will become more and more apparent. It is hoped that in the near future Government refunds will materialise for this Clinic.

STATISTICAL REPORT OF DIRECTOR FOR PERIOD 1st JULY, 1933 TO 30th JUNE, 1934.

Venereal Clinic (European).

1.—SUMMARY.

Out Patients		Specimens		Salvarsan	
No. of New Patients	Total Attendances	No. sent to Institute	No. Examined at Clinic	No. of Patients treated with 606 or Substitutes	No. of Doses Administered
1,391	12,425	831	706	1,354	4,826

2.—ATTENDANCES AND DISEASES.

Attendances of New Patients				Attendances of Old Patients			
Gonorrhœa		Syphilis		Soft Chancre		Not V.D.	
M	F	M	F	M	F	M	F
826	153	273	139	—	—	—	—
4,183	970	3,803	2,078	—	—	—	—

3.—LABORATORY. NUMBER OF SPECIMENS EXAMINED AND RESULTS OF EXAMINATION.

Clinic						Institute										Total Number of Specimens Examined
Gonococci		Spirochaetes		Others		Gonococci		Spirochaetes		Wasserman Test						
+	-	+	-	+	-	+	-	+	-	+++	++	+	-	?		
303	297	—	—	44	62	38	37	—	—	301	16	32	361	46		

Venereal Clinic (Non-European: Females and Children Only).

1.—SUMMARY.

Out Patients		Specimens		Salvarsan	
No. of New Patients	Total Attendances	No. sent to Institute	No. Examined at Clinic	No. of Patients treated with 606 or Substitutes	No. of Doses Administered
179	1,080	24	—	70	616

2.—ATTENDANCES AND DISEASES.

Attendances of New Patients								Attendances of Old Patients							
Gonorrhœa		Syphilis		Soft Chancres		Not V.D.		Gonorrhœa		Syphilis		Soft Chancres		Not V.D.	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
—	—	—	179	—	—	—	—	—	—	—	201	—	—	—	—

3.—LABORATORY. NUMBER OF SPECIMENS EXAMINED AND RESULTS OF EXAMINATION.

Clinic.				Institute											Total Number of Specimens Examined.
Gonococci		Others		Gonococci		Spirochaetes		Wasserman Test					Others		
+	-	+	-	+	-	+	-	+++	++	+	-	?	+	-	
-	-	-	-	-	-	-	-	7	10	-	6	1	-	-	24

REMARKS.

1. ATTENDANCES OF PATIENTS.

(a) *European Centre*—As compared with the previous year there has been a drop of 101 in the number of new patients who presented themselves at this Centre.

The total attendances for the period exceeded those for the previous year by 775.

(b) *Non-European Centre*.—The attendances of new patients at this Centre exceeded the number for the previous year by 8.

The total attendances for the period exceeded those for the previous year by 165. The figures for the total attendances both for the European and Non-European Centres are encouraging in that they indicate an increased average attendance per patient.

2. ACCOMMODATION FOR THE IN-PATIENT TREATMENT OF ACUTE CASES.

In the annual report for the period of 1932-33, your Director emphasised the need which exists for the establishment of a number of beds and a suitably-equipped operating theatre somewhere in the Johannesburg City Council's area, for the admission and treatment of acute and other carefully selected cases. During the year under review the need for such an arrangement was felt acutely on many occasions.

Patients suffering from complications, requiring immediate attention, were visited by your Director at their homes where appropriate medical aid was administered under the most adverse conditions. This was rendered necessary in order to tide them over the period which had to elapse before they could be admitted as in-patients in the Rietfontein Hospital.

3. GENERAL.

As in the past, courses of instruction have been given at your European Centre to the following groups:—

- (1) 5th and 6th year Medical and Dental Students of the University of the Witwatersrand.
- (2) Members attending the Department of Public Health Course of the University.
- (3) The ladies who are taking the Health Visitors and School Nurses Course under the auspices of the Witwatersrand Technical College.

HENRY GLUCKMAN, M.R.C.S., L.R.C.P.,

Director, Johannesburg City Council's
"Special Treatment Centres."

OPHTHALMIA NEONATORUM.

CASES NOTIFIED.

				1931-32	1932-33	1933-34.
Ophthalmia Neonatorum—						
Whites	...	...	...	13	7	17
Natives	...	...	...	6	5	7
Eurafricans	...	...	...	1	2	2
Asiatics	...	...	...	1	—	—
				21	14	26
Gonorrhoeal Ophthalmia—						
Whites	...	...	...	3	3	3
Natives	...	...	...	2	—	—
Eurafricans	...	...	...	—	—	—
Asiatics	...	...	...	—	—	—
				5	3	3
All Cases—						
Whites	...	...	...	16	10	20
Natives	...	...	...	8	5	7
Eurafricans	...	...	...	1	2	2
Asiatics	...	...	...	1	—	—
				26	17	29

The increase in cases notified shows a not undue increase, but possibly more meticulous notification.

NOTIFIABLE INFECTIOUS DISEASES.

During the year under notice, 1,874 cases were notified, viz., 1,030 amongst Whites, 783 amongst Natives, 51 amongst Euraficans, and 10 amongst Asiatics. These occurrences are discussed elsewhere in this Report.

The procedure adopted in regard to notified infectious diseases, disinfection, etc., has been the same as recorded in previous years.

1,424 houses and 20,648 articles of clothing, bedding, etc., were disinfected.

SMALL-POX.

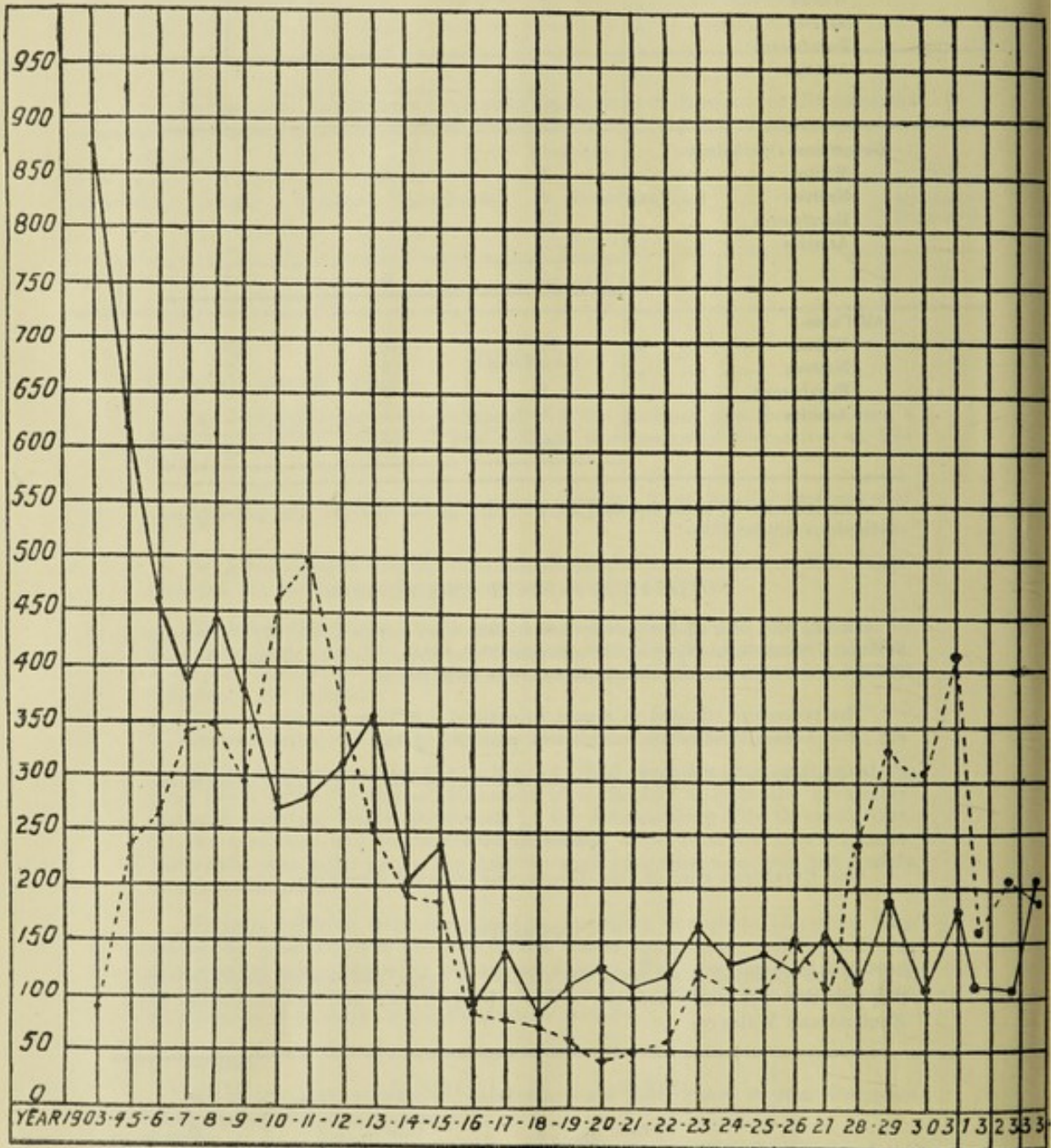
One Eurafican case of this disease was reported during the year.

ENTERICA.

In the following is set forth the number of cases, and deaths, together with the case-rate per cent. and the death-rate per 1,000, and the death-rate for England and Wales:—

	1931-32				1932-33				1933-34			
	Cases	Deaths	Case-rate %	Death-rate	Cases	Deaths	Case-rate %	Death-rate	Cases	Deaths	Case-rate %	Death-rate
Whites ...	111	22	19·81	0·10	102	18	17·64	0·08	202	32	15·84	0·14
Natives ...	156	74	49·43	0·48	202	84	41·58	0·54	180	82	45·55	0·49
Eurafricans ...	11	4	36·36	0·19	18	6	33·33	0·42	16	6	37·50	0·41
Asiatics ...	8	1	12·5	0·12	3	2	66·66	0·20	3	2	66·66	0·19
England and Wales ...				0·006 (1931)				0·006 (1932)				0·006 (1933)

YEARLY INCIDENCE OF ENTERIC FEVER IN THE 31 YEARS,
1903-4 TO 1933-34.



Whites—Continuous Line.

Natives—Dotted Line.

There is nothing in this incidence to comment on except its continued lowness.

ERYSIPELAS.

97 White, 9 Native and 1 Asiatic cases of Erysipelas were notified in 1933-34, as compared with 58 White and 14 Native in 1931-32 and 60 White, 23 Native and 2 Asiatic cases in 1932-33.

Progressively there have been 72 cases of this disease in 1931-32, 85 in 1932-33, and now 107 in 1933-34. Why? It may be only surmise, but is it perhaps on account of the prevalence of streptococcal infections? Under the heading of Maternal Mortality reference is made to the relationship between that mortality rate (streptococcal incidence) and the incidence of Scarlet Fever. Without dogmatising in these relationships it almost looks probable that the flow of streptococcal infections (Scarlet Fever, Puerperal Sepsis and Erysipelas) are intimately co-related, and that research into their relations is well worth investigation.

MENINGITIS.

The following table shows the registered number of deaths, with death-rates, from meningitis during the triennium 1931-34:—

	1931-32		1932-33		1933-34	
	Deaths	Death-rate	Deaths	Death-rate	Deaths	Death-rate
Whites	27	0·13	21	0·09	23	0·10
Natives	45	0·29	39	0·25	46	0·27
Eurafricans	4	0·19	5	0·35	5	0·34
Asiatics	2	0·24	3	0·30	—	—

The death-rate and incidence is much the same as in previous years.

INFANTILE PARALYSIS.

(Acute Poliomyelitis.)

3 White cases were reported in 1933-34, as compared with 2 White and 1 Native case in 1931-32 and 4 White, 1 Native and 1 Asiatic case in 1932-33.

The possible extension of this disease is always an anxiety, but there is no indication of spread.

LEPROSY.

3 White and 41 Native cases were notified in 1933-34; 39 of the Native cases were infected before arrival in the Municipal Area and all were transferred to the Government Leper Institute in Pretoria.

Most of the leper cases are importations. Secondary cases of leprosy rarely, if ever, occur in Johannesburg.

PLAGUE PREVENTION.

No cases of plague occurred during the period under review.

A safety zone continues to be maintained at an approximate radius of three miles beyond the Municipal boundaries. This has necessitated the carrying out of field rodent destruction in 15 distinct areas, totalling many thousands of acres. 555 Capex Cartridges, 174 lbs. Cyanogas, 56 lbs. Wheat and 6 oz. Strychnine have been used in this work. In addition, other large areas have been surveyed. 1,342 veld rodents were found dead.

CITY RODENT WORK.

626 visits of inspection have been made by the City Rodent Staff; 203 premises, including bioscopes, theatres, grain stores, furniture stores, cafés, restaurants, refuse tips, and private houses were specially dealt with and advice given for the destroying of rodents and rendering premises rodent-proof. Eleven statutory notices have been served on owners of buildings to execute work for rodent eradication and prevention.

As a result of these measures, the owners of many large buildings now constantly employ rat-catchers.

Stocks in grain stores and the Municipal Market have been frequently "turned over," and numbers of rats have been destroyed by trained Municipal dogs.

All rodents found dead, all rodents obtained from railway trucks and a proportion of trapped rats are sent to the South African Institute for Medical Research for bacterial examination. During the year 1933-34, of the 14,730 rats and 1,407 mice caught, 3,342, or 22·07 per cent., were so examined; none were plague infected.

5,164 Trucks conveying produce have been examined at the Kazerne and Newtown Railway Siding. Municipal dogs are employed in this work.

All hares coming into the Municipal Area have been seized and destroyed.

It is of some import that the City Council should be aware that so far as the possible introduction of plague infected rodents into the City is concerned, the Department has done everything possible to prevent such a calamity. It has done so advisedly. With large experience in plague-ridden lands, your M.O.H. has no hesitation in saying that the City of Johannesburg has taken more elaborate steps to exclude plague infection from surrounding plague infected areas (comparatively close) than has any Local Authority in the Union, or, indeed, the majority of cities which have a possible plague menace. For the protection afforded the Council is greatly indebted to its rodent staff, who not only know their business, but carry it out. In this connection one may say that for propaganda purposes the Department exhibited a complete cine film of its anti-rat measures at the Department's Health Exhibit in April last at the Witwatersrand Agricultural Show. These remarks on plague prevention would be incomplete without reference to the Council's ratting dogs. It is true that they are well kennelled and well fed. They are also well bred and well trained, and in their activities and work—*unpaid servants of the Council*—they are indefatigable in plague prevention. Anyone who has seen them at work cannot but appreciate their contribution to plague prevention.

SCARLET FEVER.

In 1933-34 there were 395 White, 2 Native and 4 Eurafrican cases of this disease. There was one death among the White population, the death-rate being 0·004. In the two previous years the cases notified were 392 White in 1931-32, and 323 White in 1932-33, the mortality rate being 0·01 and 0·09 per 1,000 respectively. The rate per 1,000 in England and Wales for 1933 was 0·02.

TYPHUS.

One White (imported) case and 7 Native (6 imported) cases were reported in 1933-34, as against 4 imported cases in 1931-32 and 5 cases (3 imported) in 1932-33.

DIPHTHERITIC DISEASE, INCLUDING MEMBRANOUS CROUP.

The occurrence of diphtheritic disease in 1933-34 numbered 222 (211 Whites, 9 Natives and 2 Eurafricans), in 1931-32 217 (204 Whites, 5 Natives and 8 Eurafricans), and in 1932-33 146 (135 Whites, 4 Natives, 4 Eurafricans and 3 Asiatics). The case mortality for Whites being 7·58, 7·84 and 7·40 per cent. for the respective years in order mentioned above, and the death-rate per 1,000 was 0·07 in 1931-32, 0·04 in 1932-33 and 0·07 in 1933-34, as compared with 0·07 for England and Wales in 1933. The low case mortality and the low death-rate are worthy of note and reflect credit on the medical and nursing staff of the Fever Hospital.

PUERPERAL SEPTICÆMIA, ETC.

In 1933-34 65 cases (38 Whites, 18 Natives, 7 Eurafricans and 2 Asiatics) were reported, as compared with 49 (31 Whites, 11 Natives, 3 Eurafricans and 4 Asiatics) in 1931-32 and 53 cases (27 Whites, 23 Natives and 3 Eurafricans) in 1932-33. The death-rate for 1933-34 was 3·65 per 1,000 births for Whites, as against 1·82 in England and Wales for 1933. The incidence of this disease is referred to under Maternal Mortality and is a matter for concern.

ANTHRAX.

Two Natives cases of this disease were notified in 1933-34.

INFLUENZA.

The number of registered deaths from influenza during the year was 41 Whites, 21 Natives and 2 Eurafricans. These figures, as compared with most years, are insignificant.

ENCEPHALITIS LETHARGICA.

Three White cases were notified in 1933-34 as against no case in 1931-32, and one in 1932-33. 12 Whites and 2 Native deaths were registered. The attention of medical practitioners is again called to their failure to notify cases of this notifiable disease and the penalty for non-notification, which will be applied for in the Courts in cases of such failure in future.

TUBERCULOSIS.

Appended is a statistical summary of the mortality from tuberculosis in Johannesburg for the years 1931-32, 1932-33 and 1933-34:—

DEATH-RATE PER 1,000.

	Pulmonary Phthisis			Other Forms of Tuberculosis		
	1931-32	1932-33	1933-34	1931-32	1932-33	1933-34
Johannesburg—						
Whites	0·31	0·33	0·28	0·03	0·03	0·02
Natives	1·42	1·42	1·34	0·26	0·18	0·24
Eurafricans	0·83	1·17	1·15	0·09	0·14	0·27
Asiatics	1·23	1·00	1·15	—	—	—
<hr/>						
	1931	1932	1933	1931	1932	1933
England and Wales ...	0·742	0·687	0·690	0·154	0·150	0·137

Notification of Tuberculosis.—334 notifications were received during 1933-34, namely, in regard to 21 Whites, 295 Natives, 14 Euraficans and 4 Asiatics.

The incidence in Natives is practically confined to Natives employed on the Mines.

BACTERIOLOGICAL DIAGNOSIS.

The following are particulars of the specimens examined under this heading for the City Council at the South African Institute for Medical Research during the year 1933-34:—

Disease.	Positive.	Negative.
Typhoid	638	1,764
Tuberculosis	491	9
Diphtheria	715	2,138
Haemolytic Streptococcus ...	509	1,076
Gonococcus	25	25
B. Pestis	—	2
Bilharzia	—	1
Leprosy	3	42
Anthrax	7	7
	2,388	5,064

The figures do not include rats examined for suspected plague (vide p. 24).

ISOLATION HOSPITALS.

Fever Hospital.—The number of White cases treated at the Fever Hospital in Johannesburg was 580 as compared with 503 in 1932-33, as follows: Diphtheria 204, scarlet fever 179, erysipelas 76, measles 63, enteric fever 23, meningitis 9, chicken-pox 6, whooping cough 6, mumps 5, German measles 4, syphilis 2, poliomyelitis 2, typhus 1.

The cost of the upkeep of the Fever Hospital for 1933-34 was £12,962 14s. 1d.

The Hospital grounds, which in the previous year were improved at considerable cost, now reflect the greatest credit on Mr. Frith, the horticulturist in charge, and are now unrecognisable in beauty as compared with their former barren and gloomy aspect.

Springkell Sanatorium.—16 non-miners suffering from tuberculosis were being treated at the Springkell Sanatorium on 1st July, 1933, and 27 fresh cases were sent there during 1933-34. Four patients died and 14 left. The cost of treatment of these cases was £2,240 16s.

Rietfontein Hospital.—3 lepers, 1 scabies, 1 scarlet fever and 1 suspect small-pox, and 81 Native cases of chicken-pox, 37 leprosy, 37 measles, 14 diphtheria, 21 mumps, 14 whooping cough, 8 scarlet fever, 2 anthrax, 1 meningitis, 1 small-pox and 2 erysipelas were removed for treatment to the Rietfontein Hospital. Rietfontein Hospital was paid £532 4s. for these services.

Government refunds an amount of £10,000 per annum towards the cost of treatment of infectious diseases cases, including tuberculosis, and maintenance of special treatment centre.

AMBULANCE REMOVALS.

During the period under review, 15 White cases and 220 Coloured were removed to Rietfontein Hospital, 425 White cases to the Fever Hospital, and 73 White cases to the General Hospital. In addition, 20 White patients were removed to the Children's Hospital, 40 patients to the Non-European Hospital, 27 Whites to Springkell Sanatorium, and 70 Whites to Private Hospitals. Five cases were also removed from outside districts at the request of, and on payment by, the local authorities concerned.

NURSING HOMES.

There are 42 nursing homes in Johannesburg, all of which are periodically inspected by District Inspectors or Health Visitors and the Technical Medical Staff.

LIVE STOCK MARKET AND PUBLIC ABATTOIR.

The following figures have been kindly supplied by the Director, Abattoir and Live Stock Market:—

During 1933-34 1,098,825 animals passed through the Live Stock and Quarantine Yards, and 117,613 cattle, 392,899 sheep, etc., 14,941 calves and 82,109 pigs, or a total of 607,562 animals, were slaughtered at the Abattoir; 1,802,715 lbs. imported meat was inspected, and 1,878,158 lbs. meat was condemned.

FOOD AND DRUGS REPORT FOR YEAR ENDING 30th JUNE, 1934.

Foods Condemned.

The following foods were condemned by the food and Drugs Inspectors:—Fish, 43,989 lbs.; smoked fish, 2,750 lbs.; tinned fish, 4,590 lbs.; meat, 38 lbs.; poultry, 186; tinned meat, 110 lbs.; tinned fruit, 1,497 lbs.; jam, 226 lbs.; cream, 2 gallons; milk, 5 gallons; dried fruit, 5,000 lbs.; flour, 120 lbs.; sauce, 724 bottles; salad cream, 80 lbs.; olives, 200 lbs.; macaroni, 300 lbs.; game, 800 lbs.; infants' powders, 96 doz.; food preservatives, 1 doz.; boric powder, 15 doz.; boracic crystals, 4 doz.; chamomile flowers, 10 doz. During the period under review they passed 225,596 lbs. of bacon, etc., 8,874,630 lbs. of fish, 888,105 lbs. smoked, cured or dried fish, 14,072 lbs. game, 5,059 dressed poultry and 10,119 lbs. meat.

Food, Drugs and Disinfectants Act.

The labelling sections in this Act provide the necessity for perpetual vigilance, and generally there is a big improvement in the labelling of the articles affected. Infringements are not encountered to the same extent as was the case when the Act was first promulgated.

Manufacturers, producers and their printers are continuously being interviewed regarding the correct labelling of the various products and doubtful or improper labels submitted to the Secretary for Public Health for action.

A Soda Fountain survey was made during the period under review and 103 warning notices with specimen labels were served; a comprehensive report on all fountains then existent was submitted to the Union Department of Public Health. The chief difficulty with this class of trade is that these fountains frequently

change hands or are removed to different premises and to keep up with these changes and effectively supervise the labelling, requires considerably more time than our other important duties permits.

With the exception of routine milk sampling, and now that the Food and Drugs Act appears to be more widely known, this section, on your instruction, has concentrated more on doubtful foodstuffs and complaints than on the general sampling which has been the practice in the past more or less as a check on the quality of foodstuffs in relation to the standards prescribed in the Act. The co-operation of the Government Analyst in this connection is much appreciated as, where an adulteration or some similar breach of the Act is suspected, they are able to provide a rapid qualitative test in order to establish whether a certain article is adulterated so that in positive cases an immediate purchase of an official sample may be made; this concentration of sampling is reflected in the following summary where it can be clearly seen that although the number of samples taken may be less than the previous year, the number of prosecutions is relatively higher.

Food Poisoning.

One fairly serious case of food poisoning was reported and investigated, but after bacteriological examination and what was known of the condition of the tin in question (a minute fracture), no blame could be attached to either the seller or the manufacturer.

A certain brand of cheap sardines was found to contain considerably more tin than is permitted under the Food and Drugs Act and the matter was referred to the Secretary for Public Health.

Certain other brands of sardines were submitted for chemical analysis in view of their having blown containers whilst appearing sound, faulty tinning being suspected. The results were negative.

Complaints.

Complaints from tradesmen and other members of the public have been received throughout the year in connection with all classes of foodstuffs and although immediate investigation or sampling revealed insufficient cause for action, in many cases several successful prosecutions were conducted as indicated in the summary.

Boreholes

Since this section has been delegated the supervision of all boreholes from October, 1933, 55 inspections, and many other re-inspections, have been made on new or existing boreholes and 30 samples of water submitted for bacterial examination or chemical analysis.

Swimming Baths.

In conjunction with the Bio-chemist samples for chemical analysis and bacteriological examination were taken from each of the ten baths during the season. The results were satisfactory.

Regular inspections have been carried out on all premises where foodstuffs are manufactured, stored, retailed or packed and the co-operation of all branches of this and other Departments in the functioning of this section has been valuable and much appreciated.

S. G. RUSSELL,

JNO. S. RUSSELL,

Food and Drugs Inspectors.

ANALYSIS OF FOODS, ETC.

Milk.—Appended is a tabulated summary of the results of analyses and prosecutions:—

	1931-32	1932-33	1933-34
Number of Samples taken ...	459	543	694
Number examined bacterially .	83	82	93
Number deficient Solids-not Fat	6	35	81
Number deficient Fat	8	5	26
Number of Prosecutions ...	13	15	42
Amount of Fines	£20	£41	£118

In addition to the 736 water examinations (see page 33) 748 articles of food, etc., were examined during 1933-34 at the Government Laboratories. Details are appended:—

Description.	Genuine or Pure.	Adulterated or Impure.
Milk	613	81
Aerated Drinks	13	—
Soap	4	—
Coffee	8	—
Lard	1	—
Honey	1	4
Ice Cream	5	6
Ghee	—	1
Baking Powder	1	—
Ground Cloves	1	—
Ground Almonds	4	—
Orange Squash	1	—
Chocolate Coverture	1	—
Butter	1	—
Bread	2	—

This is 3.36 samples per annum per 1,000 of the white population.

The following comments are offered:—

MILK SUPPLIES AND DAIRY INSPECTION.

(a) INSPECTION OF DAIRIES INSIDE THE MUNICIPAL AREA.

Local Milk Affairs.

During March, 1933, several general dealers were proceeded against by the Council for selling milk from unlicensed dairy premises such as grocers' shops, tea-rooms, etc. In anticipation of the action to be taken by the Council, these traders formed an Association with the object of challenging the validity of the Dairy By-laws governing the production, handling and sale of milk and cream within the Municipal Area.

It was agreed to by the Solicitors for the Council and those for the defence that a "test case" should be arranged and this procedure was followed. After several remands the presiding Magistrate on 5th July, 1933, found the accused guilty and imposed a fine on him. An appeal was noted by counsel for the defence and during October of that year the appeal was upheld by the Supreme Court in Pretoria.

This decision necessitated the drafting of By-laws to meet the position that had arisen, and the Council's legal advisers have now the matter in hand. A certain delay has occurred owing to it being found expedient for the Council to obtain additional powers from the Provincial Executive to enable it to frame suitable regulations.

Meantime, milk is being sold in and from unlicensed shops, with the result that licensed dairymen are being forced out of business. The licensee of a milkshop is regulated as to what he can sell and he has to conform to certain trading hours. Generally speaking, the city milkshops are well conducted and worthy of the encouragement that it is hoped the new By-laws will afford.

During the earlier months of 1934 the city experienced an acute shortage of milk, which was mainly due to stock sickness and inferior grazing, but the supply was almost normal again by the beginning of June.

Local Producing Dairies.

The conditions generally at the local producing dairies remain satisfactory, nevertheless objections to their presence in rapidly filling residential areas are received from time to time. It is noticeable that several of the smaller dairies are being forced out of business, mainly on account of grazing difficulties. On the other hand, new dairies are being opened up on agricultural lots within the Municipal Area.

Sources of City Milk Supplies.

1. Approximate gallonage of milk arriving daily by rail	...	10,000
2. Approximate gallonage of milk arriving daily by road from outside areas	...	7,000
3. Approximate gallonage produced locally daily	...	6,000
		<hr/>
		23,000

Of the quantity of milk used daily, approximately 3,250 gallons are pasteurised or subjected to other forms of heat treatment.

Yearly Competitions for Gold Medal and Certificate of Merit Awards.

These competitions are conducted in conjunction with the Council's system of scoring dairies, which takes place each quarter of the year. To become eligible to enter these competitions, a dairyman must gain a score averaging at least 90 per cent. over the four quarters of the year. In addition, marks are awarded for bacterial purity and absence of visible dirt in milk samples taken in the ordinary course of sale or distribution. In each of the four sections of the competition, gold medals are awarded for:—

- (a) Highest general efficiency;
- (b) Bacterial milk purity.

Certificates of Merit are awarded to competitors whose average score in the competition is 80 per cent. and over.

Awards to All Classes of Local Dairymen for the Year ended 30th June, 1933.

Five gold medals and 42 certificates of merit.

Firms entitled to compete 30th June, 1933	...	59
Firms entitled to compete 30th June, 1934	...	65
		<hr/>
Increase	...	6

Awards to Outside Dairymen for the Year ended 30th June, 1933.

Two gold medals and 14 certificates of merit.

Firms entitled to compete 30th June, 1933	...	28
Firms entitled to compete 30th June, 1934	...	23
		<hr/>
Decrease	...	5

Bacteriological Results of Milk Samples for which Gold Medals were Awarded.

Raw Milk—City Producer Retailer Section:	800 micro-organisms per c.c.
“ “ Outside “ “ “	1,700 “ “
“ “ Milkshop Section:	16,000 “ “
Pasteurised Milk:	No award.

NOTE.—“ Certified Milk ” is generally regarded as milk which does not contain more than 30,000 organisms per c.c.

Number and Average Scores of Local Producing Dairies.

Number of dairies scored for year ended 30th June, 1933	...	124
Number of dairies scored for year ended 30th June, 1934	...	110
Decrease	...	14

Average score return, year ended 30th June, 1933: 82.5 per cent.

Average score return, year ended 30th June, 1934: 83.41 per cent.

Number and Average Scores of Milkshops—Raw Milk Depots.

Number of milkshops scored for year ended 30th June, 1933	...	80
Number of milkshops scored for year ended 30th June, 1934	...	87
Increase	...	7

Average score return, year ended 30th June, 1933: 84.2 per cent.

Average score return, year ended 30th June, 1934: 84.5 per cent.

Number and Average Score of Milk Pasteurising Depots.

Number for the years 1933 and 1934: 6.

Average score return, year ended 30th June, 1933: 90.25 per cent.

Average score return, year ended 30th June, 1934: 92 per cent.

Typhoid Carrier Tests.

Five hundred and twenty-seven dairy employees were subjected to the Widal blood tests and seven "reactors" were isolated. The "reactors" were natives who were either subjected to treatment at the Municipal Native Hospital or handed over to the Chief Pass Officer for repatriation at the Council's expense. A slight outbreak of enteric fever occurred amongst the customers of one local dairy and this was traced to an employee who, although previously tested, was found to be an intermittent carrier.

Tests for the Presence of Visible Dirt in Milk.

One thousand one hundred and sixty-six tests were made of milk in the course of sale and distribution, the samples of milk being taken during the early morning and mid-day from milk deliveries in the street and at local milkshops. The results were classified as follows:—

1. Good—where no dirt was visible on the test wad	...	1,006
2. Fair—where dirt was visible in a minor degree	...	137
3. Bad—where dirt was highly visible	...	23
		<u>1,166</u>

Number of warning notices issued: 57.

Number of prosecutions instigated: 19.

Propaganda Work.

Quarterly returns showing the results of score-card inspections of dairy premises were published and attractive illustrations regarding milk were inserted periodically in the local morning and evening papers. The "Rand Daily Mail" still continues to devote a page each fortnight in its "Clean Milk Campaign," and in this it receives the support of leading dairy firms. "The Star" has allocated, free of cost, certain space (together with an attractive milk poster specially prepared) in its Home Economics Exhibition. In this Exhibition several thousand copies of a pamphlet prepared by this Department, viz., "Milk—The Food for Everybody," are being distributed. The support given by the local Press in milk matters is greatly appreciated.

Departmental Exhibit at Rand Show—Easter, 1934.

A display of modern dairying equipment, refrigerating plants, cattle stalling, sterilising apparatus, milk-testing outfits and general section activities, received favourable comments from the Press, dairy farmers and general public. Thanks are due to the local business firms for the assistance they rendered in lending material, which greatly contributed to making the display a success.

Preparation of Dairy Films.

Several hundred feet of film was prepared showing:—

- (a) Modern methods of milk production, handling and distribution, together with up-to-date buildings and equipment.
- (b) Milk arriving at Johannesburg Station from outside dairies, including chemical sampling and tests for milk purity: also showing the operation in force at a modern milk depot, including testing, milk clarification, low temperature pasteurising methods, aeration, cooling and refrigeration, machine bottling and effective methods of sterilising utensils.

These films were shown daily in the Departmental Hall at the Rand Show.

Matters Affecting Outside Centres Dealt With.

Questionnaire by Division of Economics re Milk Distribution.

Questionnaire by Bloemfontein Council re Milk Matters.

Information to Kroonstad Council re Score Card System.

Departmental dairy plans sent on request to School of Agriculture, Potchefstroom.

Departmental dairy plans sent on request to the Editor, "The Farmer's Weekly," Bloemfontein.

Inspections, Court Attendances, Special Reports, etc.

1. Number of inspections made	...	...	...	3,868
2. Number of attendances at Public Health Committee Meetings	...	...	...	7
3. Number of special reports made to M.O.H.	...	...	...	50
4. Number of plans submitted for new dairy premises	...	...	...	18
5. Number of attendances in Magistrates' Courts	...	...	...	41
6. Number of prosecutions for contraventions of By-laws	...	...	...	32
(convictions 22, discharges 10 (9 cases on account of test case); total fines paid, £67 15s.)				

*GENERAL.**Raw Milkshops and Pasteurising Depots.*

1. Number of milkshop licences applied for or dealt with	...	181
2. Number of milk depot licences applied for or dealt with	...	6
3. Number of licences for other trades on milkshop sites	...	97
		<hr/> 284 <hr/>

Milk Producing Dairies and Stockyards.

Number of applications received or inspected for licences: 157.

(a) Number of producing dairies scored	...	...	110
(b) Number of dairies keeping less than 5 cows, not scored	...	...	11
(c) Number of licences refused, lapsed or where trading has ceased	...	...	24
(d) Number of licensed dairies where no cows are kept	...	...	9
(e) Number of new licence applications not yet issued	...	...	1
(f) Number of stockyards	...	...	2
			<hr/> 157 <hr/>

Licences for these stockyards in Newtown are being held over pending entire reconstruction of dairy premises. Plans have been submitted for the necessary work.

In conclusion, I wish to record my appreciation to all members of the Dairy and Food and Drugs Staffs, for their willing co-operation.

Yours obediently,

W. C. WATSON,
Senior Dairy Inspector.

(b) INSPECTION OF DAIRIES OUTSIDE THE MUNICIPAL AREA.

Quantity of Milk Introduced Daily into Johannesburg.

The quantity of milk introduced daily into Johannesburg varies from 16,000 gallons in winter to 18,000 gallons in summer. Approximately 10,000 gallons per day are consigned by rail to the different stations within the city and the balance is conveyed by road transport. Milk depots and milkshops receive from 13,000 to 14,000 gallons per day, while 3,000 to 4,000 gallons are supplied direct to the consumer by dairy farmers licensed to retail milk in Johannesburg.

Twenty dairy farmers have established their own milk depots in the city and are retailing some 3,000 gallons of milk per day to the public.

Between two-thirds and three-quarters of the milk supply to Johannesburg is obtained from sources outside the Municipal Area.

Number and Situation of Dairy Farms.

The number of dairy farms from which milk was supplied to Johannesburg during the year under review is 359, an increase of 22 over the preceding year. These farms are situated in the districts of Standerton, Ermelo, Bethal, Heidelberg, Pretoria, Vereeniging, Witwatersrand, Krugersdorp, Rustenburg, Ventersdorp and Potchefstroom in the Transvaal, and in the Heilbron, Kopjes and Parys districts in the Orange Free State.

The increase of permit holders is likely to continue as there is a general tendency among milk producers to establish their dairies outside municipal areas where there are greater opportunities for increasing their business and grazing can be obtained for dairy cattle.

Applications by Dairy Farmers for Permits to Introduce Milk into Johannesburg.

Applications received	386
Granted	359
Refused or withdrawn	27

Milk cannot be introduced into Johannesburg from farms or dairies outside the Municipal Area without a permit from the Council, which permit is only issued when the Council's requirements are complied with.

Applications by Dairy Farmers for Licences to Retail Milk in Johannesburg.

Applications received	70
Granted	66
Refused or withdrawn	4

Inspection of Farm Dairies.

Regular and systematic inspections were carried out on all dairy farms where milk was produced and supplied to Johannesburg. The results of these inspections were reported without delay and any unsatisfactory conditions or infringement of the Dairy By-laws immediately dealt with.

The total number of inspections made was 1,650.

Score-card Inspection.

Under this system 52 farm dairies licensed to retail milk in this city were scored quarterly. The scores ranged from 81 to 94 per cent.

Control of Milk Supplies.

Periodical inspections were made at all railway stations inside Johannesburg and on the main roads leading into the city of all supplies of milk arriving in or in transit to Johannesburg. Four supplies from unpermitted sources were discovered. Further supplies were immediately prohibited.

Tests for Visible Dirt in Milk.

This test, which is carried out by passing a pint of milk through a cotton-wool pad of approximately one square inch in area, thereby arresting and rendering visible all solid impurities, was applied to 724 supplies of milk at railway stations or on dairy farms. The results were: Good 523, fair 170, bad 31. Each dairy farmer responsible for supplying dirty milk was warned by letter that, should he in future consign to Johannesburg milk which contained visible dirt, proceedings would be taken for the cancellation of his permit without further notice.

Infectious Diseases on Dairy Farms.

Four cases of scarlet fever and one case of enteric fever occurred on dairy farms from which milk was being supplied to this city. With the exception of one case of scarlet fever, which was satisfactorily isolated on a farm, all the patients were removed to hospital.

On removal of patients, all dairy utensils and appliances were sterilised and the premises thoroughly disinfected.

Witwatersrand Agricultural Show, 1934.

In the dairy section of the Public Health Department's exhibit at the Agricultural Show we erected and displayed a number of modern fittings and appliances of special interest to milk producers. These exhibits included the stanchion system of stalling milch cows with milking machine attached, an ethyl-chloride milk cooler in operation, a charcoal cooler for storing milk and a hot-water installation with suitable plant for cleaning and sterilising dairy utensils, etc. Many dairy farmers, interested in the production of clean, wholesome milk, expressed their appreciation of this exhibit.

We desire to express appreciation of the manner in which the great majority of dairy farmers endeavour to comply with the requirements of the Council's By-laws and their genuine efforts to provide a clean milk supply to Johannesburg.

Thanks are also due to officials at railway stations and particularly those at Johannesburg Station for willing assistance and co-operation in milk inspection on railway property.

G. CHRISTIE,

JAS. W. FORRETT,

Farm Dairy Inspectors.

WATER SUPPLY.

Water is supplied in bulk by the Rand Water Board to the City Council. The Council controls the distribution of water throughout the city and owns the reticulation. The following table shows the quantity and percentage of water pumped from various sources by the Rand Water Board and is taken from the Twenty-ninth Annual Report of the Chief Engineer, Rand Water Board:—

Source	Total Quantity Pumped during Year ending 31st March, 1934	Percentages
	Gallons	
From Zwartkopjes	210,849,000	2·72
From Zuurbekom	1,971,021,000	25·47
From Vaal River	5,558,551,000	71·81
Grand Total	7,740,421,000	100·00

The length of the mains within the Municipal Area is now 554·96 miles, 13·08 miles have been added during 1933-34, while during the same period 2,908,280,600, or 7,968,000 gallons of water per day, were supplied to consumers connected to same.

CHEMICAL AND BACTERIOLOGICAL EXAMINATIONS.

Seven hundred and thirty-six samples of water were taken for examination during the year 1933-34, also 30 samples from private boreholes and wells and 20 from swimming baths.

It is desired to acknowledge the obligation of the City to the Officials of the Rand Water Board, who have at all times been assiduous in securing an adequate and pure supply of water to the City and in the area of their reticulation.

SEWERAGE.

The City Engineer has kindly supplied the following information:—

On 30th June, 1934, there were 374·84 miles of sewers and 40 miles of 4in. house connections completed.

On the same date 37,562 premises had been connected.

The Council's Sewerage System now includes outfalls to the Council's Sewage Farm at Klipspruit, and to the new Sewage Disposal Works at Antea (Langlaate) for the Western Basin, Cydna (Melrose) for the North-Eastern Basin, and Bruma (South Kensington) for the Eastern Basin.

Klipspruit Sewage Farm.

At this sewage farm great progress has been made. The sedimentation processes have been so improved that the farm, instead of being hailed as a sink of iniquity, has become a pleasant place to passers-by on the Potchefstroom road. Besides, the installation of large acreages of filters at the North-Western and South-Eastern Boundaries of the farm ensures that the final farm effluent can be discharged with impunity into any stream. This effluent to-day is very well within the standards of sewage farm effluents laid down by the Royal Sewage Commission and indeed compares favourably with any effluent discharged from any sewage farm in Great Britain, America or the Continent of Europe.

Sewage Disposal Works.

Of these there are three—Antea, Cydna and Bruma. The working of the first two have led to no complaints, and Bruma is now functioning well. These Works are an example of up-to-date sewage disposal processes. They are Works which will unquestionably lead to that knowledge of proper and exact sewage disposal so desirable throughout South Africa, and in spite of trade-wastes difficulties are model sewage disposal works, which give the minimum aerial offence to immediate residents. In the solution of activated sludge methods as applicable to South African conditions these Works have been of great value.

The Bio-Chemist's staff has been increased and his routine work is functioning admirably. But it is not so much in the routine analysis that he is to be congratulated, but in the research work, especially in respect of activated sludge processes, which will lay in time the foundations of complete and innocuous sewage disposal in South Africa, where this subject is but in its infancy. His researches are being continued.

MINES SANITATION.

The usual procedure has been carried out in regard to systematic inspections of the mining properties in the Johannesburg area.

This work has included frequent inspections of all Native compounds, hospitals and locations, married and single White quarters, contractors' compounds, brickfields, dairies and cowsheds, Native eating houses, stone crushing works, mine boarding houses, railway stations and quarters, pumping and power stations, disposal of refuse, the sanitary arrangements at the various works and the supervision of the daily cleaning up and scavenging at all places and premises on the surface.

All plans submitted in regard to new, or additions and alterations to existing housing accommodation, drainage or other sanitary requirements have been examined by the Medical Officer of Health and amended when necessary.

All cases of infectious disease among White, Natives and Coloured persons have been visited, inquired into and reported on in the usual way.

UNDERGROUND SANITATION.

Systematic inspections are made in regard to underground sanitation of all mining properties in the Johannesburg area. This supervision includes the inspection of all sanitary arrangements on all levels, working places, stations; the inspection of disused stopes, ladderways, etc., and the provision of suitable drinking water supplies on each level.

It is very satisfactory to be able to report that the work of supervising sanitary work and cleansing methods underground is carried out by white men, and there is no doubt that this accounts for the general high standard which has been maintained throughout the year.

It is desired to acknowledge the ready, reasonable and sympathetic attitude of Mine Managers in regard to requirements called for by the department.

The Government Mining Engineer and the Director of Native Labour have been kept in close touch with the general work of mine sanitation under the Department's direction.

INSANITARY PROPERTIES.

During the year under review the following Closing and Demolition Orders were granted by the Court in the following districts:—

CLOSING ORDERS, 275.

Burghersdorp	7	Newtown	8
Fordsburg	22	Marshalls	4
Ferreiras	6	Bertrams	26
Troyeville	4	Johannesburg	56
Doornfontein	33	Farm Doornfontein No. 24	4
Malay Location	37	Melville	4
Denver	2	Lorentzville	1
New Doornfontein	4	Mayfair	1
Judith Paarl	1	City and Suburban	2
Jeppes	4	La Rochelle	1
North Doornfontein	1	Vrededorp	37
Ophirton	9	Turffontein	1

DEMOLITION ORDERS, 60.

Ferreiras	8	Fordsburg	7
Marshalls	3	Malay Location	25
Burghersdorp	9	Booyens	2
Booyens Reserve	2	Ophirton	3
Lake View	1		

Owing to the operation of the Slums Act, no Closing Orders were applied for during the month of June, 1934.

Considerable activity in regard to re-arrangement or reconstruction in regard to Insanitary Properties in the Municipal Area has been effected. Two hundred and twenty-four Insanitary Properties having been reconstructed or re-arranged to render them fit for human habitation, and also 135 properties have been demolished.

The properties re-arranged or reconstructed are situated in the following districts:—

Johannesburg	20	Marshalls	1
City and Suburban	1	Ferreiras	11
Fordsburg	27	Malay Location	63
Lorentzville	1	Jeppes	13
Judith Paarl	1	Bertrams	16
Booyens	4	Doornfontein	27
Troyeville	1	Kensington	1
Farm Doornfontein No. 24	3	New Doornfontein	2
Wolhuter	4	Denver	5
La Rochelle	2	Ophirton	4
Vrededorp	1	Spes Bona	1
Burghersdorp	12	Newtown	3

The 135 properties demolished were situated in the following districts:—

Malay Location	51	Jeppes	7
Johannesburg	20	Ophirton	3
Denver	1	Bertrams	9
Ferreiras	8	New Doornfontein	4
Fordsburg	6	Judith Paarl	2
Lake View	1	Wolhuter	1
Burghersdorp	11	Marshalls	4
Booyens	2	Doornfontein	3
Mayfair	1	Newtown	1

INSPECTION OF PLANS.

All building and drainage plans submitted to the Council through the City Engineer continue to be examined by the Plans Inspector (Mr. C. J. Crothall, M.I.A.), who works in close and harmonious co-operation with the City Engineer's staff. All defects or breaches of By-laws are attended to before the plans are approved. Much valuable work bearing on housing conditions of all classes of the community is accomplished by this procedure.

In connection with the extensive slum work now being carried out, the system of examination in vogue is particularly valuable, as it affords opportunities for specially qualified advice to be tendered to owners and architects in regard to the remodelling of dwellings which cannot be entirely condemned as unfit for habitation.

During the year there has been unprecedented building activity, which has necessitated the appointment of an Assistant Plans Inspector (Mr. E. Coetzee, A.M.I.S.E.), transferred from the District Inspector's staff.

The number of plans approved for the year ended 30th June, 1934, was 6,922, an increase of 1,059 over the previous year, and the estimated cost of erection was £3,928,738, showing an increase of no less than £2,220,835. Building activity is not only maintained, but is increasing to "boom" conditions, which will be reflected in heavy increases in next year's statistics.

In addition to the ground covered by the Special Inspectors, the District Inspectorate Staff have accomplished 416 inspections in connection with repairs to buildings, and 54 inspections in connection with unauthorised buildings. They have also in respect of insanitary properties, where necessary alterations were of a minor character, served 120 notices, paid 3,489 visits of inspection and secured the demolition of 18 and the vacation of 31 properties (*vide* following schedule):—

ANNUAL RECORD OF DUTIES PERFORMED BY DISTRICT INSPECTORS ONLY.

From 1st July, 1933, to 30th June, 1934.

INSPECTIONS.			
BUILDINGS—		CYANIDE FUMIGATIONS—	
Repairs to	416	Supervised	2,511
Unauthorised	54	INFECTIOUS DISEASES—	
CLOSETS AND URINALS—		Cases Investigated	351
Inspected	10,510	Contacts	106
Additional Provided	68	Vaccination	—
French Drains	301	Licensing Court	137
HOUSES—		LICENSED PREMISES—	
Dwellings	11,478	Aerated Water and Ice	
INSANITARY DWELLINGS—		Factories	326
Notices	120	Asiatic Eating Houses	106
Visits	1,145	Bakeries	1,476
Demolished	18	Barbers' Shops	1,194
Vacated	31	Bioscopes	179
INTERVIEWS—		Boarding Houses	497
Owners, Agents, etc.	1,948	Butchers' Shops	3,312
Native Housing	2,867	Cowsheds	9
NUISANCES—		Dairies	20
Animals	367	General Dealers	9,358
Drainage	926	Hotel Dining Rooms	319
Fly	280	Ice Creameries	132
Manure	695	Kaffir Eating Houses	2,076
Mosquito	134	Laundries	736
Rats	626	Lodging Houses	62
Refuse	2,189	Milk Shops	13
Slopwater	1,195	Noxious Trades	2,269
Smoke	140	Nursing Homes	374
Stables	1,445	Private Cows	14
Stormwater	205	Restaurants	991
Unspecified	1,928	Tea Rooms	1,944
SAMPLES TAKEN—		NOTICES SERVED—	
Water	170	Statutory	1,544
Service Complaints	332	Others	800
Slum Properties	2,344	Prosecutions	41
Wells and Boreholes	177	Attendance at Court	39
		Special Duty	136

LICENSED PLACES.

From 1st July, 1933, to 30th June, 1934, 4,422 applications for licences of various kinds have been dealt with, the premises in question being in all cases carefully examined as to sanitary requirements.

	1933-34		
	Granted	Refused or not taken out	Total
1. Tea Shops, Eating Houses, Restaurants, etc.	859	86	945
2. Dairies	236	33	269
3. Milk Shops	245	31	276
4. Butchers' Shops	612	68	680
5. Bakers and Confectioners	132	14	146
6. Permits to introduce Milk	493	57	550
7. Kaffir and Asiatic Eating Houses	197	29	226
8. Nursing Homes	42	4	46
9. Laundries	65	2	67
10. Ice Creameries	356	7	363
11. Noxious or Offensive Trades	370	36	406
12. Aerated Water and Ice Factories	32	—	32
13. Hairdressers and Barbers	385	26	411
14. Lodging House	3	3	6
	4,027	396	4,423

PROSECUTIONS.

Ninety-three persons were prosecuted for various breaches of the Public Health Act and By-Laws, 85 were convicted, and fines aggregating £293 were imposed. Particulars are appended:—

By-laws Infringed.	Race of Accused.			Totals.
	Whites.	S.A. Coloured	Asiatic.	
Prevention of Nuisances ...	18	1	3	22
Sale of Food and Drugs:				
Milk	21	1	1	23
Honey	3	—	—	3
Clean Milk	10	—	—	10
Dairies and Milk Shops ...	4	—	—	4
Butchers	6	—	—	6
Bakery	2	—	—	2
Restaurant and Tea Room	1	—	—	1
Ice Cream	4	—	2	6
Kaffir Eating House ...	4	—	—	4
Licences	1	—	—	1
Closing Order	4	—	—	4
Rats	2	—	—	2
Fumigation	5	—	—	5
Totals ...	85	2	6	93
RESULTS—				
Convicted and Fined ...	73	2	6	81
Convicted and Cautioned	4	—	—	4
Dismissed	5	—	—	5
Withdrawn	3	—	—	3
Prohibition Order Granted	3	—	—	3
AMOUNT OF FINES ...	£277 15 0	£4 0 0	£11 5 0	£293 0 0

This work is supervised by the Medical Officer of Health, under whose directions proofs of evidence, summonses, subpoenas and charge-sheets are prepared and handed to the Council's Solicitors.

