

Annual report of the Medical Officer of Health / City Council of Pretoria.

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CITY COUNCIL OF PRETORIA



FORTY-FOURTH

Annual Report

OF THE

Medical Officer of Health

FOR THE

YEAR 1947-1948



WALLACHS' PTA.—66530—6/5/49

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CITY COUNCIL OF PRETORIA

FORTY-FOURTH

Annual Report

OF THE

Medical Officer of Health

FOR THE

YEAR 1947-1948

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PUBLIC HEALTH COMMITTEE

Councillor L. R. B. de Klerk (Chairman)
 Councillor V. H. B. de Klerk (Vice-Chairman)
 Councillor L. B. de Klerk
 Councillor L. C. J. de Klerk
 Councillor C. W. de Klerk

STAFF OF THE PUBLIC HEALTH DEPARTMENT AS AT 30th JUNE, 1948.

H. NELSON, M.A., M.D., C.B.E., B.A.O.,
 D.P.H., D.T.M. & S.S., F.R.C.S., F.R.C.P., F.R.C.S.D., F.R.C.S.(S), F.R.C.S.(G), F.R.C.S.(C), F.R.C.S.(E), F.R.C.S.(I), F.R.C.S.(J), F.R.C.S.(K), F.R.C.S.(L), F.R.C.S.(M), F.R.C.S.(N), F.R.C.S.(O), F.R.C.S.(P), F.R.C.S.(Q), F.R.C.S.(R), F.R.C.S.(S), F.R.C.S.(T), F.R.C.S.(U), F.R.C.S.(V), F.R.C.S.(W), F.R.C.S.(X), F.R.C.S.(Y), F.R.C.S.(Z)
 T. LUTHER, M.B., Ch.B., L.R.C.P., F.R.C.S., F.R.C.S.D., F.R.C.S.(S), F.R.C.S.(G), F.R.C.S.(C), F.R.C.S.(E), F.R.C.S.(I), F.R.C.S.(J), F.R.C.S.(K), F.R.C.S.(L), F.R.C.S.(M), F.R.C.S.(N), F.R.C.S.(O), F.R.C.S.(P), F.R.C.S.(Q), F.R.C.S.(R), F.R.C.S.(S), F.R.C.S.(T), F.R.C.S.(U), F.R.C.S.(V), F.R.C.S.(W), F.R.C.S.(X), F.R.C.S.(Y), F.R.C.S.(Z)
 A. PETER, M.D., B.A.,
 R. E. W. DICK, M.B., Ch.B., L.R.C.P., F.R.C.S., F.R.C.S.D., F.R.C.S.(S), F.R.C.S.(G), F.R.C.S.(C), F.R.C.S.(E), F.R.C.S.(I), F.R.C.S.(J), F.R.C.S.(K), F.R.C.S.(L), F.R.C.S.(M), F.R.C.S.(N), F.R.C.S.(O), F.R.C.S.(P), F.R.C.S.(Q), F.R.C.S.(R), F.R.C.S.(S), F.R.C.S.(T), F.R.C.S.(U), F.R.C.S.(V), F.R.C.S.(W), F.R.C.S.(X), F.R.C.S.(Y), F.R.C.S.(Z)

Introductory Letter.

YOUR WORSHIP THE MAYOR,

and MEMBERS OF THE CITY COUNCIL, PRETORIA.

I have the honour to present to you the Forty-fourth Annual Report of the Health Department for the year ended 30th June, 1948.

The report is a resumé of the work for the year and contains most of the important matters relevant to the health of the people of this City.

In general the very good health conditions which have existed here in the past have been maintained.

The Infantile Mortality rate for Natives is the lowest ever recorded. The European death rate the second lowest and the rates for Native and Asiatic deaths, the lowest.

The compulsory pasteurization of milk in Pretoria has been brought one step further. The Council has agreed in principle that all milk supplies, excepting certain special high grade milk must be pasteurized. It is hoped before the end of the year to lay the necessary by-laws before the Council for consideration.

I wish to thank your Worship and Members of the City Council for the assistance which they afforded to me during the year. Councillor C. H. Parsons has again been Chairman of the Health Committee this year. I wish to record my appreciation of the great help and support which he in particular, and all the members of the Health Committee gave me.

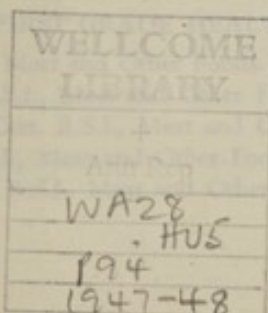
The review of the work will show that there has been an ever growing increase in the activities of the Department and that a very high standard of health has been maintained. This is entirely due to the enthusiasm and hard work of the entire staff, and I am quite convinced that the Public of Pretoria appreciates that its Health Department is doing a very good job of work. I wish to record my appreciation of the loyalty and efficiency of the staff.

I am also grateful for the assistance given me by the Public, the Heads and sub-Heads of other Departments.

Once again I wish to emphasize my personal deep appreciation of the really excellent co-operation which this Department has always received from the Press, without whose assistance we would never have been able to attain the advancement made in Public Health in this City.

H. NELSON,

Medical Officer of Health.



Introductory Letter

YOUR WORTHY THE HONORABLE
MEMBERS OF THE CITY COUNCIL

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the proposed amendment to the charter of the City of New York, and in reply to inform you that the same has been forwarded to the proper authorities for their consideration. The report of the committee on the subject of the proposed amendment is now before the Council, and it is expected that it will be reported to the Council at an early day. I am, Sir, very respectfully,
Your obedient servant,
J. J. [Signature]

THE CITY CLERK
CITY OF NEW YORK

PUBLIC HEALTH COMMITTEE.

Councillor L. H. Fourie (Chairman).
 Councillor V. H. Rudd (Vice-Chairman).
 Councillor L. Bernstein.
 Councillor L. C. J. Besaans.
 Councillor C. W. Sinclair.

STAFF OF THE PUBLIC HEALTH DEPARTMENT AS AT 30th JUNE, 1948.

H. NELSON, M.A., M.D., Ch.B., B.A.O.,
 D.P.H., D.T.M. F. R. San. I. Medical Officer of Health.
 T. LOTTER, M.B., Ch.B., L.R.C.P. & S.,
 L.R.F.P.S., D.P.H. Deputy Medical Officer of Health.
 A. PIJPER, M.D., D.Sc. Pathologist (Part-time).
 R. E. W. DICKS, M.B., Ch.B., D.P.H. . . . Assistant Medical Officer of Health (Isolation
 Hospital).
 S. BEHR, B.A., M.B., Ch.B., B.A.O. . . . Venereologist.
 A. T. B. H. BODENSTAB, M.B., Ch.B., D.P.H.,
 D.T.M. & H. Assistant Medical Officer of Health.
 M. VERA BUHRMANN, M.B., Ch.B., D.P.H. Assistant Medical Officer of Health—Child
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 R. BUCHAN, M.B., Ch.B., D.P.H. . . . Additional Assistant Medical Officer of Health.
 M. GETZ, M.B., Ch.B. Temporary Medical Officer—Child Welfare.
 I. P. MARAIS, B.Sc., Agric., B.V. Sc., D. Med.
 Vet. Veterinary Officer.
 W. G. VAN ASWEGEN, B.Sc., B.V.Sc. . . Assistant Veterinary Officer.
 F. T. E. NICHOLSON, Cert. R.S.I. and Meat
 and Other Foods, Cert. of Agric. Dairying
 Natal Chief Health Inspector.
 L. E. THOMAS, Cert. R.S.I. and Meat and
 Other Foods, Cert. Trop. Hyg., Adv., Know-
 ledge, San. Eng. Building Construction and
 Drawing (Adv.) Assistant Chief Health Inspector.
 W. G. FUNSTON, Cert. R.S.I. and Meat and
 Other Foods, Trop. Hyg. Senior Health Inspector in Charge (Admini-
 strative).
 H. M. DE VAAL, B.Sc., Applied and Industrial
 Chemistry; M.S.A. Chem. I, M. Inst. S.P. Chief Chemist and Analyst.
 P. R. LOEWENSTEIN, B.Sc. (Eng.) M.S.A.
 Chem. I, A.M. Inst. S.P. Assistant Chemist and Analyst.
 P. J. J. PIENAAR, M.Sc., M.S.A. Chem. I . . Chemist, Grade II.
 A. L. GOLDBERG, B.Sc. (Eng.), M.S.A. Chem.
 I, A.M. Inst. S.P., M.R.S.I. Chemist, Grade II.
 N. P. LE M. NICOLLE, B.Sc., A.M.S.A. Chem. I Chemist, Grade II.

SENIOR HEALTH INSPECTORS IN CHARGE.

K. C. J. LUCOUW, Cert. R.S.I.
 A. VELTHUYSEN, Cert. R.S.I.
 J. L. COETZEE, Cert. Meat and Other Foods.
 R. BLOEMINK, Cert. R.S.I. Meat and Other Foods, Trop. Hyg. Adv. Knowledge.
 F. B. TAIT, Cert. R.S.I., Meat and Other Foods, Trop. Hyg., Adv. Knowledge San. Science.
 E. J. JAMMINE, Cert. R.S.I., Meat and Other Foods, Adv. Knowledge, Trop. Hyg.

SENIOR HEALTH INSPECTORS.

N. VORSTER, Cert. R.S.I., Meat and Other Foods, Trop. Hyg.
 D. W. BURGESS, Cert. R.S.I., Meat and Other Foods, Trop. Hyg.
 J. S. R. MARAIS, Cert. R.S.I., Meat and Other Foods, Trop. Hyg.

FIRST GRADE HEALTH INSPECTORS.

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 O. A. BERGMAN, Cert. R.S.I., Meat and Other Foods, Trop. Hyg.

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 M. D. NEL, Cert. R.S.I., Meat and Other Foods.
 J. C. THERON, Cert. R.S.I., Meat and Other Foods.
 P. R. Q. WILBRAHAM, Cert. R.S.I., Meat and Other Foods, San. Science.
 P. T. FURSTENBURG, Cert. R.S.I., Meat and Other Foods, Adv. Knowledge, Trop. Hyg.

THIRD GRADE HEALTH INSPECTORS.

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 H. G. MOMMSEN, Cert. R.S.I.
 A. DE LA H. SERFONTEIN, Cert. R.S.I.
 T. J. VAN HEEVER, Cert. R.S.I., Trop. Hyg.
 J. T. GORDON, Cert. R.S.I., Meat and Other Foods, Trop. Hyg.
 H. L. NEETHLING, Cert. R.S.I., Trop. Hyg.

CLERICAL STAFF.

Senior Clerk:

R. O. R. CARRUTHERS, Cert. R.S.I., Meat and Other Foods, Trop. Hyg.

Record Clerk:

I. M. MALLETT (Miss).

Junior Clerks:

J. H. LEACH, C. P. LEACH, J. KRUGER.

Typistes:

T. I. DAVIDSON, K. J. HAUPT, D. R. WELTHAGEN, K. KATZENELLENBOGEN.

SUB-ECONOMIC SCHEMES.

Woman Housing Manager: K. S. MARTIN, Dip. Public Health, Cert. Gen. Nursing and Midwif.
 Asst. Manageress: G. F. PIENAAR, Lower Secondary Teacher's Cert., Univ. of Cape Town,
 A.R.S.I., Assoc. Soc. of Women Housing Managers, Octavia Hill Training.

Clerk: O. M. SPIERS.

Typist: E. J. VILJOEN (Mrs.).

Handymen: J. BRODIE, P. J. CRONJE, G. L. FERREIRA, G. M. J. DE KOCK and J. H. KIRSTEN.

DISINFECTING OFFICER.

V. J. BESTER.

RODENT ERADICATORS.

J. P. SCHOLTZ.

A. J. VLOK.

ANTI-MALARIAL STAFF.

B. HATTINGH.

J. B. VAN WEZEL.

H. C. A. DE BEER.

HEALTH VISITORS.

F. L. ROSS, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse.

G. S. J. PRETORIUS, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse; Mothercraft.

E. W. MURRAY, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Inspector; Cert. R.S.I. Health Visitor and School Nurse, Mothercraft.

B. M. SCHOLTZ, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse.

H. C. E. PRETORIUS, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse.

A. S. SCHULTZ, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse; Mothercraft.

- D. H. BRONKHORST, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse; Mothercraft.
 A. C. M. VAN DER WESTHUIZEN, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse; Mothercraft.
 I. L. KOCKOTT, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse; Mothercraft.
 J. WINKEL, Gen. Nursing; Health Visiting; Maternity Nursing; Tuberculosis Home Visiting.
 D. G. MORGAN, Cert. S.A. Medical Council; (Gen. and Midwif.); Mothercraft.

NON-EUROPEAN NURSES.

- | | |
|--------------------------------|---------------------------------|
| D. F. THOMAS, Cert. Midwife. | GRACE MSIMANG, Cert. Midwife. |
| SALMINA HUMA, Cert. Midwife. | IVY MBOBO, Cert. Midwife. |
| ANNA NTJA, Cert. Midwife. | TALITHA LEEUW, Cert. Midwife. |
| VIOLET PHATUDI, Cert. Midwife. | GLORIA MOGALE, Cert. Midwife. |
| JOHANNA PAUL, Cert. Midwife. | DEBORAH RAMSKIN, Cert. Midwife. |
| GRACE PHOOKO, Cert. Midwife. | EUPHEN NDUNA, Cert. Midwife. |

NON-EUROPEAN CLINIC ORDERLIES.

- | | |
|-----------------|------------------|
| JACOB MOHOHLO. | WALTER MATABOGE. |
| JOSEPH MONTODI. | HENRY SETHEKGE. |

PUBLIC CONVENIENCE ATTENDANTS.

- | | |
|----------------|--------------------|
| TEN EUROPEANS. | TWO NON-EUROPEANS. |
|----------------|--------------------|

ATTENDANT—MUNICIPAL WASH-HOUSES.

R. J. GROBLER.

POUNDMASTERS.

- | | | |
|-------------|--------------|-------------|
| C. J. OTTO. | L. J. BOTHA. | C. W. SHORT |
|-------------|--------------|-------------|

CARETAKER.

J. HINDLEY.

ADDITIONAL MEDICAL STAFF (ISOLATION WARDS).

PART-TIME STAFF :

- | | | |
|------------------------|---------|-------------------------------------|
| DR. E. A. GRÜNBERGER.. | | } Ear, Nose and Throat Specialists. |
| DR. J. H. W. CASEWELL | | |
| DR. H. J. BESSELAAR | | } Surgical Specialists. |
| DR. G. VAN DYK | | |

TEMPORARY STAFF :

- | | | |
|--|---------|--------------------|
| S. M. PRUNS, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse; Mothercraft.. | | } Health Visitors. |
| A. M. PRINS, Cert. S.A. Medical Council (Gen. and Midwif.); Cert. R.S.I. Health Visitor and School Nurse .. | | |
| H. M. E. VAN DER MERWE, Midwifery Cert.; Mothercraft Certificate | | |
| H. C. FICK, Cert. S.A. Nursing Council; (Gen. and Midwif.); Florence Nightingale Foundation Council Diploma for Public Health Social Services and Hospital and Training School Administration; Infectious Diseases; Mothercraft .. | | |
| | | |

D. H. BROWNE, JR., M.D., Chief, U.S. Army Medical School, Washington, D.C.
 A. C. M. VAN DER WERF, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 J. L. KOCOTT, M.D., Chief, U.S. Army Medical School, Washington, D.C.

J. WINGEL, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 D. G. MORGAN, M.D., Chief, U.S. Army Medical School, Washington, D.C.

NON-EUROPEAN NURSES

D. F. THOMAS, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 SALVINA RUINA, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 ANNA NINA, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 ROBERT PIATUCCI, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 KATHARINA PAUL, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 GRACE PHOENIX, M.D., Chief, U.S. Army Medical School, Washington, D.C.

NON-EUROPEAN CLINIC ORDERLIES

JACOB MONROE, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 JOSEPH MONROE, M.D., Chief, U.S. Army Medical School, Washington, D.C.

THREE CONTINENT ATTENDANTS

TWO NON-EUROPEANS

ATTENDANT-GENERAL WASHINGTON

R. J. CROWLEY, M.D., Chief, U.S. Army Medical School, Washington, D.C.

EXAMINERS

C. J. OTTO, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 J. L. BOWEN, M.D., Chief, U.S. Army Medical School, Washington, D.C.

CARETAKER

JOHN BOWEN, M.D., Chief, U.S. Army Medical School, Washington, D.C.

ADDITIONAL MEDICAL STAFF ASSASSIN WARD

PART-TIME STAFF

DR. E. W. BOWEN, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 DR. J. W. CROWLEY, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 DR. H. J. BOWEN, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 DR. G. VAN DER WERF, M.D., Chief, U.S. Army Medical School, Washington, D.C.

TEMPORARY STAFF

S. M. BOWEN, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 R. J. CROWLEY, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 A. M. BOWEN, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 H. J. BOWEN, M.D., Chief, U.S. Army Medical School, Washington, D.C.
 H. C. BOWEN, M.D., Chief, U.S. Army Medical School, Washington, D.C.

CITY COUNCIL OF PRETORIA.

FORTY-FOURTH ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

CLIMATIC DATA.

Latitude: 25 degrees, 44 minutes, 3 seconds South.

Longitude: 1 hour, 52 minutes, 48 Seconds East.

Mean Altitude: 4,480 feet.

Temperature: (Statistics kindly supplied by the Chief Meteorologist, Pretoria).

	Mean Max.	Mean Min.	Highest Reading.	Lowest Reading.	Mean Relative Humidity at		Rainfall.	
					8.30 a.m. %	3 p.m. %	Inches.	Days.
1947:								
July	63.6	32.7	73.6	24.0	56	24	0.05	2
August	75.2	42.8	83.0	36.8	50	24	0.00	—
September	75.0	48.0	86.0	40.8	52	30	0.31	4
October	82.1	55.3	92.0	46.8	55	29	1.51	10
November	83.7	58.7	93.8	49.9	57	35	4.25	12
December	79.5	59.0	86.8	52.9	71	49	5.07	15
1948:								
					8 a.m.	2 p.m.		
January	83.2	58.6	91.2	50.5	71	47	4.58	12
February	78.6	57.4	84.5	49.3	74	54	2.43	10
March	76.9	59.0	82.5	49.0	84	61	8.98	16
April	73.9	48.2	79.5	40.5	77	43	1.52	5
May	70.2	44.1	74.8	37.5	81	42	0.38	3
June	68.2	35.5	74.5	28.8	71	30	0.00	—

AREA OF MUNICIPALITY.

The area of Pretoria and suburbs, inclusive of Town Lands, is 60.37 square miles. The town is built on and between three parallel ranges of quartzite hills running East and West, the soil in the valleys being largely shale.

ANNUAL RATEABLE VALUES.

	1946/47.	1947/48.
Land	£8,630,454	£19,033,909
Buildings	£25,244,280	£34,585,320
TOTALS	<u>£33,874,734</u>	<u>£53,619,229</u>

The values of unrateable land and buildings were £6,033,128 and £9,246,270, respectively.

The total values therefore were:—

	1946/47.	1947/48.
Land	£19,840,135	£25,067,037
Buildings	£31,835,540	£43,831,590
TOTALS	<u>£42,675,675</u>	<u>£68,898,627</u>

For the year under review the rates imposed were 7d. per £ on land and 1½d. per £ on buildings.

POPULATION.

POPULATION exclusive of inmates of Institutions (Leper and Mental Asylums):—

	Population as at Census taken during May, 1946.
European	106,986
Native	52,872
Asiatic	4,179
Eurafrican	2,741
	<u>166,778</u>

POPULATION inclusive of Institutions:—

European	108,386
Non-European	61,192
	<u>169,578</u>

The above figures have again been supplied by the Director of Census. Unfortunately the figures are still those obtained from the May, 1946 census, and no estimate of the present population of Pretoria is as yet available. It must be noted that the figures are only for the Pretoria Municipal area.

Pretoria, being the largest Military centre in the Union, accommodated many troops and their families during the war. This created an abnormally large temporary increase in the population. Demobilisation is nearly complete, and most of these temporary residents have now returned to their home towns.

The increase in the population figure* has once again become more stable and a steady growth is being maintained, as a result of natural increase and industrial expansion. This increase in population is very evident from the continued acute housing shortage.

The Principal Vital Statistics for the Year under review, corrected for outward transfers are:—

	European.	Native.	Asiatic.	Eur-African.	Total Non-European.	All Races.
Population	106,986	52,872	4,179	2,741	59,792	166,778
Birth Rates	27.06	9.95	42.59	21.16	12.74	21.93
Death Rates	6.12	6.49	10.77	18.24	7.33	6.55
Infantile Mortality per 1,000 live births	33.16	138.78	61.84	224.14	127.30	52.78
Percentage of illegitimate to live births	1.14	50.96	1.51	31.03	37.66	8.75
Death rate from Tuberculosis, all forms, per 1,000 population	.11	1.04	1.20	3.61	1.17	.55

BIRTHS.

(Figures for 1946-47 in brackets).

The following births were registered in Pretoria during the year:—

	European.	Native.	Asiatic.	Eur-African.	Total Non-European.	All Races.
Local Births	2895 (3205)	526 (455)	178 (201)	58 (62)	762 (718)	3657 (3923)
Births where mothers were not residents of Pretoria	882 (779)	—	—	—	163 (140)	1045 (919)
Illegitimate births (included in local births)	33 (34)	268 (252)	1 (3)	18 (20)	287 (275)	320 (309)
Stillbirths	44 (34)	—	—	—	49 (43)	93 (77)

BIRTH RATES.

European	27.06 (29.96)
Native	9.95 (8.61)
Asiatic	42.59 (48.10)
Eurafrican	21.16 (22.62)
All Non-European	12.74 (12.01)
All Races	21.93 (23.52)

Rates of natural increase, being the excess of births over deaths in proportion to population, are as follows:—

European	20.94 (23.78) per 1,000.
Asiatic	31.83 (35.89) per 1,000.
Eurafrican	2.92 (8.03) per 1,000.

Europeans.

The birth rate for the year under review showed a drop but has remained fairly constant over the last ten years.

When the estimate of the present population figure (which will no doubt show an increase) is available the birth rate figure will be still lower, although this need not cause any undue concern.

Non-Europeans.

In several of the previous annual reports mention is made of the difficulty of giving a true reflection of the birth rate for natives owing to the inaccuracy of the notification of native births.

If all native births were registered the birth rate figure would be much higher. This year's rate of 9.95 is 1.34 higher than last year and is the highest birth rate since 1930.

The birth rate of 42.59 for Asiatics shows a steady but definite decrease and is the lowest since 1932-33, and the rate of 21.16 for Eurafrians is the lowest ever recorded. Here too the rate is dropping steadily every year. The number of births this year was 58 as compared with 62 for the previous year.

The birth rate for all non-Europeans is 12.74, 0.73 higher than last year.

The birth rate of 21.93 for all races is 1.59 lower than last year.

DEATHS.

(Figures for 1946-47 in brackets).

	European.	Native.	Asiatic.	Eur- African.	Total Non- European.	All Races.
Local deaths (all ages)	655 (661)	343 (354)	45 (51)	50 (40)	438 (445)	1093 (1106)
Deaths of persons not being local residents	363 (297)	—	—	—	655 (579)	1018 (876)
Total Deaths ..	1018 (968)	—	—	—	1093 (1024)	2111 (1982)

The "Non-local" deaths occurred at:—

	Pretoria and other Hospitals	Mental Hospital.	Leper Asylum.	Prisons.	Visitors.
Europeans	293 (228)	44 (56)	5 (6)	1 (—)	23 (7)
Non-Europeans	459 (422)	56 (34)	89 (71)	38 (33)	18 (19)

DEATH RATES.

European	6.12 (6.18)
Native	6.49 (6.70)
Asiatic	10.76 (12.20)
Eurafrican	18.24 (14.59)
All Non-European	7.33 (7.44)
Total for all races	6.55 (6.63)

European.

The death rate of 6.12 for Europeans is lower than last year's which was then the second lowest ever recorded. The lowest ever recorded was 5.96 in 1944-45.

The rate is based on the population figures of the census taken in May 1946. Unfortunately the figure estimated for the present population is not yet available, were it so the death rate figure would be still lower due to the greater population figure.

Non-European.

The death rate for natives is 6.49 which is the lowest ever recorded.

The rate of 10.76 for Asiatics is also the lowest ever recorded and is 1.84 lower than last year. There has been a definite downward trend in the death rate figure.

The death rate of 18.24 for Eurafrians is 3.65 higher than the previous year.

Not much importance can be attached to Asiatic or Eurafrian rates as the total population and total numbers of births and deaths are so small that any slight variation exaggerates the rate per 1,000.

The total Non-European death rate is 7.33 which is .11 less than last year and is the lowest ever recorded. The rate for all races of 6.55 is also the lowest ever recorded.

INFANTILE MORTALITY.

(Rates for 1946-47 in brackets).

	European.	Native.	Asiatic.	Eur-African.	Total Non-European.	All Races.
Local deaths	96 (83)	73 (107)	11 (11)	13 (10)	97 (128)	193 (211)
Deaths of infants whose mothers had come to the City for confinement, or infants who were brought in suffering from the illness which caused death	64 (48)	—	—	—	74 (70)	138 (118)
TOTAL INFANT DEATHS	160 (131)	—	—	—	171 (198)	331 (329)

INFANTILE MORTALITY RATES.

European	33.16 (25.90)
Native	138.78 (235.16)
Asiatic	61.80 (54.73)
Eurafrican	224.14 (161.29)
All Non-European	127.30 (178.27)
All races	52.78 (53.78)

The causes of infantile deaths in Europeans were as follows:—

	1947-48.	1946-47.
Congenital causes	10 (Rate 3.48)	1 (Rate 0.31)
Diarrhoeal diseases	12 (" 4.15)	4 (" 1.25)
Bronchitis and Pneumonia	16 (" 5.53)	12 (" 3.74)
Infectious diseases	2 (" 0.69)	5 (" 1.56)
Other causes	13 (" 4.49)	18 (" 5.61)
Prematurity	35 (" 12.90)	33 (" 10.30)
Injury at birth	8 (" 2.76)	10 (" 3.12)
TOTAL EUROPEAN INFANT DEATHS ..	96	83

The causes of infantile deaths in Non-Europeans were as follows:—

	1947-48.	1946-47.
Congenital causes	6	3
Diarrhoeal diseases	18	18
Bronchitis and Pneumonia	28	44
Infectious diseases	1	8
Other causes	11	13
Prematurity	25	32
Injury at birth	3	10
TOTAL NON-EUROPEAN INFANT DEATHS ..	92	128

TABLE OF INFANTILE MORTALITY RATE FOR ALL RACES SINCE 1926-27.

Year.	European.	Native.	Asiatics.	Eur-African.	All Non-Europeans.	Total for all Races.
1926-27	48.48	385.51	101.26	246.37	315.31	137.49
1927-28	61.30	483.51	166.67	163.26	256.04	153.79
1928-29	57.85	451.12	140.19	168.83	328.88	143.86
1929-30	51.77	422.48	88.80	141.17	297.92	126.94
1930-31	68.33	573.68	142.86	222.23	362.07	148.42
1931-32	59.41	794.87	112.00	179.48	459.80	153.48
1932-33	68.44	742.42	158.54	123.08	429.27	157.99
1933-34	68.13	621.40	121.74	244.68	415.93	152.60
1934-35	51.26	347.00	62.50	122.64	222.00	95.91
1935-36	77.67	585.94	152.67	140.19	374.49	149.58
1936-37	52.66	450.24	107.38	112.36	269.49	99.42
1937-38	63.57	457.14	105.26	209.88	303.35	116.21
1938-39	50.95	348.53	86.85	118.18	230.24	93.94
1939-40	43.84	349.67	136.90	146.34	255.39	88.92
1940-41	62.60	376.34	92.48	121.95	245.32	96.84
1941-42	53.30	353.84	86.42	264.70	253.06	86.10
1942-43	47.34	329.48	81.97	101.12	223.30	80.07
1943-44	47.94	304.99	70.71	204.08	216.64	77.80
1944-45	33.98	289.69	86.49	105.26	206.45	63.50
1945-46	34.02	215.24	25.77	115.39	159.35	61.17
1946-47	25.90	235.16	54.73	161.29	178.27	53.78
1947-48	33.16	138.78	61.80	224.14	127.30	52.78

The infantile mortality rate which can be looked upon as perhaps the most important health index has again shown a general downward trend and is the lowest on record for all races.

The European rate showed an increase as compared with the previous year which was exceptionally low, but this year's rate, however, is the second lowest ever recorded.

The rate for the natives showed a very marked drop. This year's figure of 138.78 is 76.46 lower than the previous lowest one of 215.24 in 1945-46. It must, however, be borne in mind that native birth registration has always been very inaccurate. It is just possible, that through our efforts to ensure that as many births as possible are reported, we now have a larger number of births recorded, which would decrease the infantile mortality rate correspondingly. Apart from this factor, however, our ante-natal and Child Welfare Clinics have greatly expanded and we now have full time specialists in attendance, almost every day of the week. Here free expert medical advice, medicines, and supplementary food, etc., are provided for all sections of the Non-European population, and we are of the opinion that this service must have helped towards reducing the total number of infantile deaths.

The Asiatic mortality rate has shown an increase but this is of very little significance because of the small Asiatic population, a slight increase or decrease in deaths and births making a vast difference to the rates, which is not a true reflection of the actual conditions. The same applies to the rate for Eurafricans which also showed an increase.

The table given hereunder indicates the number of Non-European births and infant deaths notified during the year under review, in the various Non-European residential areas:—

Natives:

	Marabas Location.		Bantule Location.		Atteridgeville Location.		Town.	
	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.
Births and infant deaths	16	9	191	26	247	15	72	23

Asiatics:

	Asiatic Location.		Town.	
	Births.	Deaths.	Births.	Deaths.
Births and infant deaths	132	8	46	3

Eurafricans:

	Cape Location.		Town.	
	Births.	Deaths.	Births.	Deaths.
Births and infant deaths	52	10	6	3

CAUSES OF DEATHS AT AGE 1 AND UNDER 5 YEARS FOR VARIOUS RACES.

Europeans:

19 Deaths were recorded under this age group:—

Diphtheria	1
Tuberculosis	2
Acute Poliomyelitis	2
Nematodes, Round	1
Cancer and other tumours	2
Heart disease	1
Broncho-pneumonia	5
Disease of Pharynx and tonsils	1
Accident	3
Unspecified causes	1
TOTAL	19

Natives:

50 Deaths were recorded under this age group:—

Tuberculosis	7
Measles	1
Malnutrition	5
Pellagra	1
Intra-cranial abscess	1
Pneumococcal Meningitis	1
Acute Bronchitis	1
Broncho pneumonia	10
Lobar pneumonia	4
Gangrene	1
Diarrhoea and enteritis	15
Nephritis	1
Accidents	2
TOTAL	50

Asiatics:

3 Deaths were recorded under this age group:—

Broncho-pneumonia	1
Tuberculosis	1
Malnutrition	1
TOTAL	3

Eurafricans:

5 Deaths were recorded under this age group:—

Broncho-pneumonia	3
Diarrhoea and enteritis	2
TOTAL	5

PRINCIPAL CAUSES OF DEATHS IN PERSONS OF 5 YEARS AND OVER.

The Principal causes of deaths were:—

	Europeans.		Non-Europeans.	
	1947-48.	Yearly Average for 5 Years.	1947-48.	Yearly Average for 5 Years.
Cancer	78	81.8	10	12.8
Heart Disease	136	154.4	32	37.8
Pneumonia, Bronchitis and Broncho-pneumonia..	33	43.0	50	64.2
Influenza	—	0.6	—	1.2
Typhoid Fever	1	1.8	2	4.2
Appendicitis	—	1.8	1	1.0
Tuberculosis (Pulmonary)	18	11.8	51	55.2
Diabetes	8	7.2	1	0.6
Apoplexy	37	43.0	7	8.0
Disease of kidneys	35	29.6	15	11.2
Disease of arteries	34	14.6	5	2.6
Disease of liver and gall bladder	15	12.2	2	3.6
Puerperal disease	—	1.2	1	1.6
Old age	11	17.8	5	4.8
Suicide	8	8.4	3	3.4
Accident	33	34.2	37	41.4
Other Infectious Diseases	11	—	3	—
Other causes	82	—	57	—

DETAILS OF CAUSES OF DEATH—5 YEARS AND OVER.

(In all the following tables, figures for 1946-47 are shown in brackets).

1. CANCER:

Europeans: 78 (0.73). Death rate per 1,000 population.

Site of disease:—

Buccal cavity and pharynx	2	(1)
Digestive organs and peritoneum.. .. .	32	(36)
Respiratory tract	14	(10)
Uterus	6	(7)
Other female genital organs	—	(—)
Breast	11	(7)
Male genital organs	7	(8)
Male and female urinary organs	2	(5)
Brain and other parts of the nervous system	1	(1)
Skin	—	(—)
Bones	—	(—)
Other and unspecified organs	3	(6)
TOTAL	78	(81)

Death Age:—

Under:

40 Years.	40-50.	50-60.	60-70.	70-80.	Over 80.	Total.
4 (6)	9 (8)	17 (20)	17 (19)	23 (21)	8 (7)	78 (81)

Non-Europeans:

Site of Disease:—

Natives:

Buccal cavity and pharynx	—	(1)
Digestive organs and peritoneum	5	(7)
Respiratory tract	1	(1)
Uterus	—	(—)
Breast	—	(—)
Male and female urinary organs	1	(—)
Other and unspecified organs	—	(—)

Asiatics:—

Digestive organs and peritoneum	—	(1)
Respiratory tract	1	(—)
Uterus	—	(—)
Male genital organs	—	(4)

Eurafricans:—

Oesophagus	—	(1)
Digestive organs and peritoneum	—	(1)
Uterus	—	(—)
Other unspecified organs	1	(—)

TOTAL	9	(13)
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2. DISEASE OF THE HEART: Death rate per 1,000 European population 1·26 (1·34).

Europeans: 135 (143).

Non-Europeans: 29 (22). Natives, 16: Asiatics, 9: Eurafricans, 4.

3. BRONCHITIS, PNEUMONIA AND BRONCHO-PNEUMONIA:

Europeans: 50 (48).

Non-Europeans: 96 (98). Natives, 76: Asiatics, 7: Eurafricans, 13.

4. INFLUENZA:

Europeans: 0 (—).

Non-Europeans: 0 (—).

5. TYPHOID FEVER:

Europeans: 1 (1).

Non-Europeans: 2 (5)—All natives.

6. APPENDICITIS:

Europeans: 0 (3).

Non-Europeans: 1 (1)—A native.

7. TUBERCULOSIS:

Europeans: 22 (11).

Non-Europeans: 69 (67). Natives, 55: Asiatics, 5: Eurafricans, 9.

8. DIABETES:

Europeans: 8 (7).

Non-Europeans: 1 (—).

9. APOPLEXY:

Europeans: 37 (41).

Non-Europeans: 7 (8). Natives, 6: Asiatics, 1: Eurafricans, 0.

10. DISEASE OF THE KIDNEYS:

Europeans: 35 (33).

Non-Europeans: 14 (17). Natives, 11; Asiatics, 1; Eurafricans, 2.

11. DISEASES OF THE ARTERIES:

Europeans: 17 (12).

Non-Europeans: 12 (3)—All natives.

12. DISEASES OF THE LIVER AND GALL BLADDER:

Europeans: 7 (12).

Non-Europeans: 1 (2)—A native.

13. PUERPERAL DISEASES:

Europeans: 1 (1).
Non-Europeans: 2 (2)—Both natives.

14. OLD AGE:

Europeans: 11 (23).
Non-Europeans: 3 (5)—All natives.

15. SUICIDE:

Europeans: 8 (12). 3 by corrosive substances, 7 by firearms.
Non-Europeans: 2 (3).
Eurafricans: 1—By corrosive substances.
Asiatic: 1—By corrosive substances.

16. HOMICIDE:

	Europeans.	Natives.	Asiatics.	Eurafricans
By Firearms (ages 1 year and over)	1	1	1	—
By cutting or piercing instruments	—	3	—	—
By other or unspecified means	—	5	—	—
Infanticide (under 1 year)	—	1	—	—

17. ACCIDENT:

Europeans: 38 (34).
Non-Europeans: 34 (33).

	Europeans.		Natives.		Asiatics.		Eurafricans.	
	1946-47.	1947-48.	1946-47.	1947-48.	1946-47.	1947-48.	1946-47.	1947-48.
By motor road vehicle (excluding motor cycles) ..	7 (11)	12 (11)	1	(1)	1	(1)	1	(1)
On railways	2 (—)	2 (3)	—	(—)	—	(—)	—	(—)
By motor cycles	4 (5)	— (2)	—	(—)	—	(—)	—	(—)
" road transport (not motor)	1 (—)	2 (1)	—	(—)	—	(—)	1	(1)
" farm machinery and vehicles (excluding road accidents)	— (—)	1 (—)	—	(—)	—	(—)	—	(—)
" food poisoning	— (1)	— (—)	—	(—)	—	(—)	—	(—)
" poisoning (absorption of gases)	— (—)	3 (2)	—	(—)	—	(—)	—	(—)
" poisoning (not gas)	— (2)	— (1)	—	(—)	—	(—)	—	(—)
" burns (not conflagration)	1 (1)	3 (2)	—	(—)	—	(—)	—	(—)
" electric currents	— (—)	1 (—)	—	(—)	—	(—)	—	(—)
" mechanical suffocation	1 (—)	— (1)	—	(—)	—	(—)	—	(—)
" drowning	3 (2)	— (—)	—	(—)	—	(—)	—	(—)
" firearms	— (1)	— (1)	—	(—)	—	(—)	—	(—)
" injury by cutting or piercing instruments ..	— (—)	— (1)	—	(—)	—	(—)	—	(—)
" fall	10 (5)	7 (—)	—	(—)	—	(—)	—	(—)
" crushing	1 (1)	— (—)	—	(—)	—	(—)	—	(—)
" anaesthetic	5 (2)	— (2)	—	(—)	—	(—)	—	(—)
" other and unspecified accidents	3 (3)	— (4)	—	(—)	—	(—)	—	(1)
TOTAL	38 (34)	31 (31)	1	(1)	2	(1)	—	(—)

DETAILS OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR.

(NOTE: All figures for 1946-47 are shown in brackets).

TYPHOID FEVER:

	Europeans.		Non-Europeans.	
Local cases	13	(11)	10	(8)
Imported cases	30	(46)	95	(93)
Deaths in Local cases	—	(1)	3	(2)
Attack Rate	0.122	(0.103)	0.167	(0.134)
Death Rate	—	(0.009)	0.050	(0.033)

Local Cases:

It will be noted from the above figures that there is a slight increase in the number of locally contracted cases of Typhoid Fever amongst both Europeans and Non-Europeans. The total number of cases for this year is 23 and for last year 19.

With the exception of two patients who were treated at their homes, all were removed to the Isolation Hospital. Of these cases three of the Non-Europeans died.

Full investigation of all local cases including the taking of blood for examination from suspect carriers, was carried out. Six Europeans in one family contracted the disease from a case which occurred outside the Municipal area.

There were no epidemic outbreaks associated with milk or water.

Imported Cases:

Of the imported cases eight Europeans and six Non-Europeans were Pretoria residents who contracted the disease outside the Pretoria Municipal area. Of these cases one European and one Non-European died. Six cases classified as imported were notified from the Mental Hospital. (A Government Institution within the Municipal area). All other imported cases were patients who were admitted to our Hospitals for treatment from outside the Municipal area.

TESTS CARRIED OUT FOR POSSIBLE TYPHOID CARRIER STATE.

	Number of Persons Vi-tested.	Blood Found Vi-positive.	Stool or Urine found Positive.
Typhoid Fever Investigations	44	1	—
Dairy Typhoid testing	736	73	2 Urine
Applicants for employment at Rietvlei Water-works	15	—	—
Applicants for employment at Pretoria Hospital	No records kept	18	—
Other Food Handlers	"	2	—

Dairy Typhoid Testing:

During the year, 85 dairies (producers and distributors) submitted their staff for typhoid testing.

In all there were 100 Europeans and 636 Natives—Total 736 tested.

5 (5%) Europeans and 68 (10.7%) Natives. Total 73 (9.9%), were Vi-positive.

Stool and urine examinations for *B. Typhosus* which were done in the case of the five Europeans were all negative.

Of the 68 natives who were found to be Vi-positive, 44 were detained in the carrier camp. The stools and urines of these cases were examined regularly for *B. Typhosus*. Two of these natives were subsequently found to be definite urinary carriers. Five refused to go into the Carrier Camp but stool and urine examinations were carried out and found to be negative for *B. Typhosus*; 12 were from dairies a great distance from Pretoria and the owners concerned were instructed not to employ these positives in the handling of milk or on the dairy farm. Five absconded. Two had previously been examined and found stool and urine negative, after remaining in the camp for some time.

TYPHOID CARRIER CAMP:

Number of inmates on 1st July, 1947	14
Number admitted during the year	52
	—
	66
Number discharged during the year	51
Still in Camp on 30th June, 1948	15

Of these 15 natives, six are urinary carriers and one is an intestinal carrier. The remaining eight are Vi-positives who are still being kept under observation.

During the year one urinary carrier was repatriated to Nyasaland.

Treatment of Typhoid Carriers.

Three Non-European males were treated during the year for the Typhoid Carrier State. Two were urinary carriers and one was excreting *B. Typhosus* in both stool and urine.

Penicillin injections and Sulphathiazole by mouth were given over a period of seven days. At the completion of the treatment, the urine examinations as well as the stool examinations of these three carriers were negative for *B. Typhosus*.

Follow-up examinations on an average of three stools and urines each month were carried out for a period of 12 months. All these remained negative.

Typhoid Immunisation.—By Besredka pills.

Pills were issued to 119 home contacts and to 41 other persons.

TUBERCULOSIS:

	Europeans.	Non-Europeans.
Local cases	14 (14)	82 (91)
Imported cases	45 (30)	108 (179)

The various forms in which the disease occurred:—

	Pulmonary.	Miliary.	Generalised.	Meningitis.	Total.
Europeans	11	—	—	3	14
Non-Europeans	73	2	4	3	82
TOTAL	84	2	4	6	96

Of the 96 Local cases 57 died during the year. Fifty (4 Europeans and 46 Non-Europeans) died in Pretoria and seven Non-Europeans had left the City and died at their homes.

Two Europeans and 29 Non-Europeans were notified only on death. Two Europeans and 19 Non-Europeans died within three months of notification, four Non-Europeans within six months, and one Non-European within nine months. The tragedy and causes of late notification have been discussed in previous reports.

Seventeen Non-Europeans gave a familial history. One European and one Non-European had been employed on the Rand Mines years ago. One European and one Non-European gave a history of being contacts of a known case.

Two Non-European cases were supplied with T.B. huts.

How Notified.

Seventeen notifications were received from the Pretoria General Hospital and from the Isolation Hospital, 19 notifications were from the weekly returns of the Registrar of Births and Deaths, 22 were notified by private practitioners, 31 by the Municipal Tuberculosis Clinics, 5 by the District Surgeon on Post Mortem findings and 2 from other sources.

Several of the cases were first seen by private practitioners and referred by them to the General Hospital or the Municipal Tuberculosis Clinics for further X-ray and sputum examinations.

Sanatorium Treatment.

During the year 11 cases were admitted to different Sanatoria.

To Springkell Sanatorium:

4 Local Cases.
3 Imported Cases.

To Rietfontein Tuberculosis Hospital:

3 Local Cases.

To Nelspruit Sanatorium:

1 Local Case.

Imported Cases.

The majority of the cases classified under this heading are patients admitted to the Pretoria General Hospital from outlying districts for isolation and medical attention.

Several cases, however, have become Pretoria residents since being infected. Fifty-four persons (28 Europeans and 26 Non-Europeans) were infected before they became residents of Pretoria. Of these 9 Europeans and 16 Non-Europeans have since died.

DIPHTHERIA:

	Europeans.	Non-Europeans.
Local Cases	47 (52)	5 (21)
Imported Cases	44 (35)	41 (39)

There was only one local death—a European child. The five Non-European cases were all Natives. 14 were children under school-going age, 18 were school-going children and 20 were adults.

40 of the patients were removed to Hospital and 12 were treated at their homes. There were two secondary cases.

Three of the adults were nurses at the Pretoria General Hospital, one a European probationer nurse and two native probationer nurses.

SCARLET FEVER:

	Europeans.	Non-Europeans.
Local Cases	216 (151)	— (—)
Imported Cases	10 (19)	1 (—)

There were no local deaths from this disease. A marked increase over the previous year's incidence is noted. As during previous years, the infection in practically all cases was very mild and uncomplicated.

An analysis of the notifications shows that there were:—

- 9 Cases in adults.
- 111 Cases in children of school-going age.
- 96 cases in children under school-going age.

Three of the adult cases were pupil nurses at the Pretoria General Hospital.

Seventy-three of the patients were removed to the Isolation Wards and 143 were home-treated. There were 39 secondary cases and one return case.

POLIOMYELITIS:

	Europeans.	Non-Europeans.
Local cases	69 (2)	4 (—)
Imported cases	69 (1)	24 (1)
Deaths in local cases	5 (—)	— (—)

Age and Sex Incidence:

0-1		1-5		5-10		10-15		15-20		20-40		Total.			
Year.		Years.		Years.		Years.		Years.		Years.					
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
5	—	16	16	12	6	6	3	3	—	1	1	43	26		
5	—	32	—	18	—	9	—	3	—	2	—	69	—		

The four Non-European cases were all females. Of these, one was an Indian child two years of age and three were natives aged 17, 26 and 46 years respectively.

Fifty-four of the cases were removed to Hospital and 19 were isolated and treated at their homes.

In one family two children aged three and one years respectively contracted the disease. The one was probably a secondary case.

In another family three children aged six years, two years and eleven months respectively, contracted the disease. The period of onset between the first and the second case was two days, and there was four days between the second and the third case.

In common with some other cities in the Union, Pretoria this year experienced a sharp rise in the incidence of the disease. It was not confined to any particular area of the City, but the majority of cases were notified from the Eastern and "better off" suburbs, whereas very few cases came from areas where there is overcrowding and not such good standards of sanitation.

The outbreak was spread over the seven months between December, 1947, and June, 1948, March being the worse month, when twenty-six cases were notified. During the outbreak which occurred between October, 1944, and March, 1945, forty-one cases were notified.

More males were affected than females.

The accompanying table shows the age incidence.

Fortunately, like during the 1944-45 outbreak, many of the patients had a mild form of the disease. The five deaths which occurred were due to "bulbar" paralysis. Of the rest of the patients, 42 had completely recovered by the end of June, 1948, 18 were left with minor degrees of paralysis which may still improve with further treatment, and 6 with major degrees of residual paralysis.

Preventive Measures:

With the co-operation of the press the public was informed of the precautionary measures to be taken. We endeavoured to allay the alarm which was beginning to spread amongst the public. Amongst other measures taken were the following:—

Gathering of children at concerts, bioscopes and parties, etc., was discouraged.

A campaign was set afoot to destroy as many flies as possible and to prevent fly-breeding.

All cases were promptly isolated and contacts were supervised.

The public was requested to take great care in matters of personal hygiene and to lead a healthy normal life in the open air, and above all to avoid fatigue.

MENINGOCOCCAL MENINGITIS:

	Europeans.	Non-Europeans.
Local cases	9 (2)	13 (3)
Imported cases	7 (3)	15 (1)

There were eight deaths among the local cases—4 Europeans and 4 Non-Europeans, but most of these cases were moribund when brought to hospital.

MALARIA:

	Europeans.	Non-Europeans.
Local cases	— (1)	— (—)
Imported cases	4 (16)	6 (18)

There were no locally infected cases reported during the year.

Of the imported cases, three Europeans and five natives were Pretoria residents who contracted the infection while outside the Municipal area. The other two were persons admitted to the Pretoria Hospital from the district for medical attention.

For comments on anti-malaria measures see page number 47.

SMALLPOX:

	Europeans.	Non-Europeans.
Local cases	— (3)	1 (2)
Imported cases	— (—)	2 (1)

One local infection was notified in a native child who had never been vaccinated. The source of infection was another native child who was suffering from a mild attack and who had contracted the infection on a farm outside Pretoria.

The patient was removed to Rietfontein Hospital and the necessary disinfection was carried out. All the contacts were vaccinated. One close contact was detained in the Isolation Hospital and the others were kept under surveillance.

During November, 1947, a native child was brought to the Outpatients' Department at the Pretoria General Hospital from outside the Municipal area for medical attention and was found to be suffering from Smallpox. The staff on duty at the time, together with all those persons who were contacts, were vaccinated and kept under observation.

During the year vaccination for Europeans was conducted at the Health Department every Tuesday morning and Thursday afternoon. A very large number of patients were vaccinated in this way.

The Non-Europeans who were referred by their employers, were vaccinated every morning during the week, at the Municipal Compound Clinic.

The following is a List of the other Infectious Diseases notified during the Year:

	Europeans.		Non-Europeans.	
	Local.	Imported.	Local.	Imported.
Leprosy	1	1	—	3
Encephalitis	1	—	—	—
Undulant Fever	1	1	—	—
Erysipelas	7	6	2	—
Puerperal Fever	—	2	2	7
Ophthalmia Neonatorum	1	—	—	1
Gonorrhoeal Ophthalmia	1	—	1	1

SPECIAL DISEASES CLINICS.

Tuberculosis Section.

Four Tuberculosis Clinics are conducted weekly. The Clinics for Europeans are held at the Municipal Clinic situated within the Pretoria Hospital Grounds. The Non-European Clinics are held at the following Clinics:—

- In room adjoining the Out Patients Department of the Pretoria Hospital.
- In an adapted building situated in the Atteridgeville Location.
- The Bantule Clinic.

The incidence of Tuberculosis amongst non-Europeans in the Municipal area as is shown in the accompanying table, is much higher than amongst Europeans, which bears out the fact that this disease is most prevalent amongst those whose standards of living are low and where housing conditions are poor.

With very few exceptions cases sent to the Clinics are unfortunately already fairly well advanced because they do not come under medical care, until very late in the disease. In spite of this, however, much good preventive work has been done during the year. Home conditions

have been improved and the necessary treatment was given as far as possible. Every case of Tuberculosis notified to the Department is immediately and carefully investigated. All cases not in need of Sanatorium treatment, or who for some or other reason cannot be admitted, are visited regularly at their homes by Health Visitors. Printed instructions are issued regarding care of patients and methods of prevention of spread of the disease.

Sputum and X-ray examinations of all cases, and where necessary, of all contacts are done at regular intervals.

All suspicious cases are kept under constant and careful supervision.

Free conveyance to the Clinic is provided for poorer patients from outlying areas of the City.

Where there is overcrowding wherever possible portable Tuberculosis huts are supplied. These huts which are collapsible and can be erected in the yard, serve a very useful purpose in the prevention of the spread of the disease as they afford isolation at home for ambulatory cases.

Financial assistance for patients was also obtained through the Government's scheme for all indigent Tuberculous (Europeans, Indians, Coloureds and Natives) who were found to be unable to undertake employment.

RETURN OF TUBERCULOSIS PATIENTS FOR THE YEAR JULY, 1947-JUNE, 1948.

	Europeans.	Non-Europeans.	Total.
Number of new cases coming under treatment during the year	29	105	134
Total number attendances	494	1,853	2,347
Number of home visits paid by Health Visitors	3,866	8,053	11,919

These figures include 989 attendances at the Atteridgeville Clinic and 4,171 home visits paid in this location during the year. At the Bantule Clinic there were 211 attendances and 544 home visits by Health Visitors. At the Central Clinic, 653 attendances and 2,338 home visits for the Non-Europeans, and 494 attendances and 3,866 home visits for the European Clinic were recorded.

VENEREAL DISEASES SERVICES.

Staff.

The Medical Officer in charge is a specialist venereologist and he has a staff of two sisters, a clinic clerk, a clinic orderly, a Non-European female nurse and three Non-European orderlies. In addition, he is helped at the Non-European clinics by two of the Assistant Medical Officers.

Accommodation.

(a) Central Clinics.

A start was made, towards the end of the period under review, with the erection of a second floor to the Special Disease Clinic to be used as a Non-European Venereal Diseases Clinic centre. This will help considerably in reducing the congestion and inconvenience to staff and patients at the present inadequate premises which is part of the Out-Patients Department, of the General Hospital.

(b) Atteridgeville Clinic.

This is held in a converted cottage which is reasonably suitable. It is hoped, however, to build a new Polyclinic, in the near future.

(c) Bantule Clinic.

This is held in a part of the Superintendent's Office. In view of the small numbers attending here, there is no justification for separate premises at present.

Clinic Hours:

Mondays:	11 a.m. to 1 p.m., and 2 p.m. to 4.30 p.m.—Mixed.
Tuesdays:	8.30 a.m. to 10 a.m. (Males), and 2 p.m. to 4.30 p.m. (Females).
Wednesdays:	9 a.m. to 10 a.m. (Females), and 4 p.m. to 7 p.m. (Males).
Thursdays:	4.45 p.m. to 5.30 p.m. (Females), and 10.30 a.m. to 1 p.m. (Atteridgeville). 2 p.m. to 4.30 p.m. (Mixed).
Fridays:	9 a.m. to 10 a.m., and 5 p.m. to 6.30 p.m. (Males).

These hours are so arranged as to cater for people on different working hours.

In addition to these regular clinics, new cases are seen at any time.

Consultation Service:

Many practitioners continue to take advantage of the free consultation service available for private cases.

Non-European Services:

As mentioned in previous reports, well over a third of the patients attending the clinics live in the peri-urban areas. These are predominantly women and children, nearly all of whom show open lesions of active syphilis. In view of the long distances these women walk with their children to attend our clinics, it is a reasonable assumption that there must be very many cases, less conscientious than these, who do not bother to come to the clinics and thus form a perpetual source of fresh infections in areas such as Riverside, Eerste Rust, Eastwood and Mooiplaas. These locations are the source from which many of Pretoria's domestic labour is imported, and our experience indicates a very high percentage of venereal disease in those areas. The Peri-Urban Health authorities are not responsible for Venereal Diseases, and the attention of the Union Health authorities has been drawn to the urgent need of decentralised Venereal Diseases clinics, in those areas. The largest percentage of defaulters from our clinics live in these peri-urban locations, and this is understandable in view of the distances involved.

The tracing of sources of infection is most difficult in Non-Europeans, owing to the great amount of casual promiscuity among them. To some extent this appears to be due to the large number of adult males who have left their wives at home in the country whilst they work in the city or are unmarried. The lack of home and family life places encourages many of the social problems which arise amongst our native population.

In the Municipal Locations, such as Atteridgeville and Bantule, however, the bulk of the cases are of latent or congenital syphilis and a comparatively small percentage have infectious lesions.

The bulk of the patients come of their own accord to the clinics. There appears to be a lot of verbal propaganda spread by the natives themselves as regards the efficiency of Venereal Diseases treatment. In addition many patients are referred to us by the Out-Patient Department of the Hospital and by the various Municipal clinics (ante-natal, child welfare and location medical services), and the Influx Control Clinics' Officers. In addition, many householders send their domestic servants for routine examinations.

European Services:

During the past year we have maintained our propaganda efforts. Lectures have been given to various bodies, interviews to the Press, and numerous posters were distributed throughout the City. This has been reflected in the increasing number of Europeans reporting for examination.

There is a close liaison with the various orphanages and Places of Safety, and all new children admitted there are examined by us. This applies also to the girls admitted to the various other types of homes, such as those for unmarried mothers.

The importance of contact tracing is realised, and every effort is made to try and trace sources of infection.

General Statistics:

	ATTITUDEVILLE				BANTULE				CENTRAL CLINICS				TOTALS				CENTRAL CLINICS			
	Non-European.				Non-European.				Non-European.				Non-European.				European.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	Total.
(a) Number of new V.D. cases	53 (62)	135 (150)	22	60			1,527 (1,521)	919 (861)	1,602	1,114	2,716	465 (292)	162 (88)	627 (380)						
(b) Number examined and found to be free of Venereal Disease	10 (21)	5 (38)	—	1			165 (205)	73 (122)	175	79	254	362 (181)	51 (31)	413 (212)						
(c) Total number of attendances	1,090 (1,280)	3,668 (3,913)	370	1,175			16,435 (15,520)	11,834 (11,640)	17,895	16,677	34,572	2,474 (3,484)	1,009 (1,242)	3,483 (4,726)						
(d) Numbers discharged as "cured"	20 (24)	63 (39)	10	17			445 (267)	233 (102)	475	313	788	78 (77)	90 (39)	168 (116)						
(e) Numbers discharged as "defaulters—unable to trace"	24	76	17	36			831	648	872	760	1,632	30	35	65						
(f) Numbers of "Resident Magistrate" warnings and "Note A's" sent to irregular attenders	221 (146)	636 (519)	11	24			348 (432)	220 (343)	580	880	1,460	55 (57)	38 (66)	93 (123)						
(g) Numbers of visits paid by clinic staff to defaulters and contacts	354 (295)	802 (1,074)	46	92			1,096 (1,125)	781 (544)	1,496	1,675	3,171	287 (513)	84 (118)	371 (631)						

Analysis of New Cases:

	ATTITUDEVILLE				BANTULE				CENTRAL CLINICS				TOTALS				CENTRAL CLINICS			
	Non-European.				Non-European.				Non-European.				Non-European.				European.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	Total.
(a) Primary and Secondary Syphilis	11 (21)	20 (20)	4	16			683 (710)	257 (269)	698	293	991	8 (26)	15 (23)	23 (49)						
(b) Late and Latent Syphilis	14 (15)	75 (101)	9	35			363 (308)	420 (325)	386	530	916	10 (13)	10 (13)	20 (69)						
(c) Congenital Syphilis	15 (15)	33 (20)	5	6			32 (69)	147 (189)	52	186	238	29 (44)	3 (8)	32 (52)						
(d) Gonorrhoea	3 (8)	2 (1)	4	1			298 (363)	13 (31)	305	16	321	32 (36)	82 (35)	114 (71)						
(e) Others	10 (3)	5 (8)	—	2			151 (71)	82 (47)	161	89	250	386 (130)	52 (9)	438 (139)						
TOTALS	53 (62)	135 (149)	22	60			1,527 (1,521)	919 (861)	1,602	1,114	2,716	465 (292)	162 (88)	627 (380)						

The numbers in brackets give the corresponding figures for the previous year. No figures are shown for the Bantule clinic which only commenced half-way through that period.

INFECTIOUS DISEASES HOSPITAL.

The Infectious Diseases Hospital, situated within the boundaries of the Pretoria General Hospital, is the property of the Pretoria City Council and is erected on land granted to the Council by the Pretoria Hospital Board with the consent and approval of the Provincial Administration.

The close proximity of the Infectious Diseases Hospital to the General Hospital is advantageous to both authorities concerned.

The Pretoria City Council has the benefit of the provision of Dispensary and X-Ray examination facilities, Nurses and Nurses quarters and kitchen and domestic services, these all being shared with the General Hospital authorities on a basis of cost per "patient day" in hospital.

The Hospital Board, on the other hand, benefits from the ease with which suspected or actual cases of infectious disease can be transferred from one hospital to the other. In addition, the possible introduction of infectious cases into the General Hospital is greatly minimised by the fact that the Council's Medical Officer acts as consultant to both the European and Non-European Casualty Departments and sees any doubtful or suspect cases before admission to hospital in the Out-patient Department, or in the hospital itself.

Finally, probationer nurses, receiving training for their nursing diplomas are offered facilities for training in isolation hospital routine and in the nursing and treatment of infectious diseases cases co-operation between hospital and municipal authorities remains extremely close and results in early detection of cases and prompt application of measures designed to prevent the spread of infection.

THE HOSPITAL.

The hospital consists of three sections two of which are reserved for European patients and the third for Non-Europeans.

The total bed accommodation is 70, but by judicious use of enclosed verandahs and siderooms can be increased to over a 100 beds in an emergency.

The Non-European section, however, which normally should only accommodate 20 patients, is always overcrowded and accommodates between 30 and 45 depending upon the season.

In the European section, accommodation is severely taxed on occasion and cases of minor infectious disease may have to be refused admission. All cases of major disease have been dealt with satisfactorily, albeit with difficulty.

Fortunately, the poliomyelitis epidemic which necessitated the admission of 173 patients over a period of time and which might have constituted a serious accommodation problem, coincided with a lowered incidence of typhoid fever.

Consequently, it was possible to convert the typhoid wards into poliomyelitis wards and to extend a helping hand to less fortunate Reef and other Municipalities who were having difficulty in placing their patients.

During the year, however, the admission of cases of pulmonary tuberculosis was a very real problem.

Normally, these cases do not enter a Municipal infectious diseases hospital, but the shortage of beds in tuberculosis sanatoria is so acute that other accommodation must be found.

Chronic or advanced cases cannot be sent to a sanatorium and waiting lists are so long that even acute cases only enter the sanatorium three months after application for admission.

It is therefore obvious that these patients must be admitted to the infectious diseases hospital during their period of waiting and that in addition beds must be provided for the open chronic and advanced cases who can never go to a sanatorium.

In the interests of Pretoria citizens it is necessary to insist that tuberculosis admissions to the Municipal hospital be restricted to cases occurring in Pretoria residents.

INFECTIOUS DISEASES HOSPITAL STATISTICS.

In view of the possible incorporation of the adjoining Town of Hercules and its native Location, Lady Selborne (Total Population: European 10,412; Non-European, 31,438), figures relating to this Municipality are given in this report. They are, however, being kept separate.

Total Admissions:

1,215, of which 739 were European and 476 Non-European. The area distribution is given in the following two tables:—

Pretoria Municipality.		Outside Areas.	
Europeans.	Non-Europeans.	Europeans.	Non-Europeans.
463	179	276	297
Totals are:			
Pretoria.	Hercules and Lady Selborne.	Other Areas.	
642	121	452	

It will be seen that the hospital serves a very wide area in that 573 or almost half of the total admissions are not Pretoria residents and of these approximately one-fifth come from Hercules and Lady Selborne.

ACUTE ANTERIOR POLIOMYELITIS:

In all, 174 patients were treated in hospital of which 143 were European and 31 Non-European.

Pretoria cases numbered 56, Hercules 15, and all other areas 103. Fifteen children died, all of whom with one exception, were under 6 years of age. The age incidence of the Pretoria cases is shown in the following table:—

0-1 Yr.	2-5 Yrs.	6-10 Yrs.	11-15 Yrs.	16-20 Yrs.	Adults.
11	20	12	5	3	5

Thus 48 of the 56 patients in hospital were under 16 years of age. Of the whole group of 174 patients treated, the youngest was 3 months and the oldest 61 years of age.

Case Fatality Rate: 8.6%.

DIPHTHERIA:

126 Patients and 8 carriers were treated during the year. The carriers were all local residents, five of them being nurses discovered during routine testing.

Pretoria.	Hercules and Lady Selborne.	Other Areas.
43	40	43

87 Of the patients were European and 39 Non-European.

It is gratifying to be able to report that no Europeans from Pretoria died in hospital of diphtheria. However, no less than 20 deaths occurred in the other 83 cases and practically all these were children under 4 years of age.

The chief reasons for this heavy mortality rate are delay in seeking medical advice, and the long distances to be travelled before reaching hospital with the result that some infants died within minutes of admission to the ward.

Case Fatality Rate: 15.8%.

A very high figure which could be considerably lowered if parents paid more attention to immunisation of their children against this infection.

ENTERIC FEVER:

The total number of cases treated was 122 together with two local typhoid carriers. Of the patients 39 were European, 4 of whom died, and 83 were Non-European of whom 6 died.

Pretoria.	Hercules Municipality.	Other Areas.
32	22	68

All 10 deaths were due to toxæmia and not to perforation. The only complications encountered in the 112 cases who recovered were two patients suffering from pneumonia and one from venous thrombosis.

Case Fatality Rate:

8.1% which is fairly satisfactory.

SCARLET FEVER:

The cases totalled 94 of which 92 were European and 2 Cape Coloured persons.

Pretoria.	Hercules Municipality.	Other Areas.
79	4	11

The only complication occurred in a European male of 17 years who developed Rheumatic Fever. There were no deaths.

MEASLES:

Of 124 cases admitted only one child, a Non-European infant from Hercules, died.

Pretoria.	Hercules Municipality.	All Other Areas.
38 Europeans	3 Europeans	10 Europeans
44 Natives	3 Natives	26 Natives

Case Fatality Rate:

.8%, which is very satisfactory.

GERMAN MEASLES:

16 Local and one outside case were admitted. There were no deaths and all patients were over 16 years of age.

CEREBRO-SPINAL FEVER:

Nineteen Europeans and twenty Non-Europeans were admitted of which 5 Europeans and 2 Non-Europeans died.

Pretoria.	Hercules Municipality.	All Other Areas.
10 Europeans	0 Europeans	9 Europeans
10 Natives	2 Natives	8 Non-Europeans

Three cases of meningococcal septicaemia recovered and also one case exhibiting the Waterhouse Friedrichson syndrome.

Case Fatality Rate: 18%

This rate is high by modern standards, but is explained by the virulence of the infection and the fact that four patients were admitted in a moribund condition and two others were comatose. Delay in enlisting medical aid was also a contributory factor.

PULMONARY TUBERCULOSIS:

93 Patients were admitted. Of these 42 were local people and 51 were from outside areas. The death rate was high and included four patients who died of a terminal tuberculous meningitis. Only a few of these unfortunates were awaiting beds in a sanatorium. The vast majority, particularly in the native group, were hopelessly advanced cases, admitted frankly for two reasons only, firstly because these patients were all open tuberculosis cases and highly infectious, and thus from the public health point of view, isolation was essential to prevent spread of infection, and secondly, hospitalisation increases the life span by a few months and the patient is rendered more comfortable during that period, so on humane ground only, hospital beds should be available.

The recorded death rate, though high, is actually worse than the figures show, because a number of patients, realizing that their cases are hopeless, beg to be allowed home a few days before they die. These requests are not refused.

The following are the figures:—

Pretoria.	Hercules and Lady Selborne.	All Other Areas.
25 Europeans	1 European	12 Europeans
17 Non-Europeans	7 Non-Europeans	31 Non-Europeans

TOTAL: 93 Cases.

European Case Fatality Rate—29%.

Non-European Case Fatality Rate—46.5%.

It is obvious that in an infectious disease hospital which admits a total of approximately 1,200 cases annually the provision of accommodation for 93 cases of tuberculosis who occupy beds for lengthy periods, must render more difficult the isolation of the acute infectious diseases.

Pneumo-Thorax Refills:

These are given to tuberculosis patients at times to suit their convenience. During the year the number given was 302 including 12 Pneumo-peritoneum refills. This figure of 302 is low because a number of patients have been discharged during the year, the disease being arrested.

SYPHILIS:

31 Local cases and 26 patients from outside areas were admitted to hospital from the Special Diseases Clinic either because it was necessary to render them non-infectious as rapidly as possible or home conditions were unsuitable for out-patient treatment.

13 Were Europeans and 44 Non-Europeans.

Pretoria.	Hercules and Lady Selborne.	All Other Areas.
31	4	22

There were no deaths.

GONORRHOEA:

14 Europeans and 6 Non-Europeans were admitted, two of the latter having gonococcal conjunctivitis as a complication.

Pretoria.	Hercules and Lady Selborne.	All Other Areas.
16	0	4

VULVO-VAGINITIS:

15 Local patients and three from outside areas were admitted. The large number of local cases follows from the fact that all newly arrived children at places of safety, orphanages and similar institutions within the Municipal boundaries are routinely examined before being allowed to mix with the other inmates. All cases detected are immediately sent to hospital. This measure prevents the distressing outbreaks which might otherwise occur.

WHOOPING COUGH:

16 Europeans and 13 Non-Europeans were admitted of which two Europeans and two Non-Europeans died—all from secondary broncho-pneumonia. All patients were 5 years of age or under.

Pretoria.	Hercules and Lady Selborne.	All Other Areas.
14	7	8

Case Fatality Rate: 13.8%.

PUERPERAL SEPSIS:

There were no European local cases in hospital but three Europeans and 9 Non-Europeans were admitted from outside areas, and one local Non-European. All patients recovered.

GLANDULAR FEVER:

A small outbreak of this disease resulted in 29 Europeans being admitted to hospital. There were no deaths.

ERYSIPELAS:

10 Local cases and 3 cases from outside areas were treated in hospital. Two were Non-Europeans and with one exception the disease was facial. There were no deaths.

MUMPS:

Thirty Europeans and 11 Natives were admitted. Four males developed acute orchitis and two other acute encephalitis. Recovery in all cases was complete.

CHICKEN POX:

Twenty Europeans and 34 Natives were admitted.

LESS COMMON INFECTIOUS DISEASES:

Treated in Isolation during the year included 1 Murine Typhus, 1 Bacillary dysentery, 3 Vincent's Agina, 1 Tickbite fever, 1 Malignant malaria, 1 Trichomonas infestation, 2 cases of influenzal meningitis (both of whom recovered), 1 Pneumococcal Meningitis, 1 Leprosy, 1 Malta fever and 1 Anthrax. There were no deaths in this group.

In addition accommodation was provided for 12 Nursing mothers whose infants were being treated and conversely for 10 babies whose mothers had puerperal sepsis.

OBSERVATION CASES:

Finally 100 cases admitted during the year were found not to be suffering from an infectious disease.

The commonest diagnostic errors were:—

- (a) Influenza or pneumonia sent in as early typhoid fever.
- (b) Influenza sent in as early poliomyelitis.
- (c) Tonsillitis sent in as diphtheria.

The work done during the year is summarised in the following tables:—

TABLE 1.

Type of Disease.	Europeans.		Non-Europeans.	
	Local.	Imported.	Local.	Imported.
Acute Ant. Poliomyelitis	54	89	2	29
Diphtheria	37	50	6	33
Diphtheria carriers	8	0	0	0
Enteric (Typhoid Fever)	17	22	15	68
Enteric carriers	0	0	2	0
Scarlet Fever	79	13	0	2
Measles	38	13	44	29
German Measles	16	1	0	0
Cerebro-Spinal Fever	10	9	10	10
Chicken Pox	17	3	25	9
Pulmonary Tuberculosis	25	13	17	38
Syphilis	12	1	19	25
Gonorrhoea	12	2	4	2
Vulvo-Vaginitis	17	1	0	2
Whooping Cough	12	4	2	11
Puerperal Sepsis	0	3	1	9
Glandular Fever	28	1	0	0
Erysipelas	8	3	2	0
Mumps	26	4	8	3
Non-Infectious Diseases	41	34	16	9
Unusual Diseases	5	7	2	4
Lodgers	1	3	4	14

	Pretoria.	Hercules Lady Selborne.	All Other Areas.	Total.	Deaths.
Acute Ant. Poliomyelitis	56	15	103	174	15
Diphtheria	43	40	43	126	20
Diphtheria Carriers	8	0	0	8	0
Enteric (Typhoid) Fever	32	22	68	122	10
Enteric Carriers	2	0	0	2	0
Measles	82	6	36	124	1
German Measles	16	0	1	17	0
Cerebro-spinal Fever	20	2	17	39	7
Pulmonary Tuberculosis	42	8	43	93	38
Scarlet Fever	79	2	13	94	0
Syphilis	31	4	22	57	0
Gonorrhoea	16	0	4	20	0
Vulvo-Vaginitis	17	1	2	20	0
Whooping Cough	14	7	8	29	4
Puerperal Sepsis	1	1	11	13	0
Glandular Fever	28	0	1	29	0
Erysipelas	10	0	3	13	0
Mumps	34	1	6	41	0
Chicken Pox	42	0	12	54	0
Non-infectious Cases	57	10	33	100	0
Unusual Cases	7	0	11	18	0
European Lodgers	1	0	3	4	0
Non-European Lodgers	4	2	12	18	0
	<u>642</u>	<u>121</u>	<u>452</u>	<u>1,215</u>	<u>95</u>

Total cases treated 1,215

Total Deaths 95

Mortality Rate 7.8%

TYPING OF TYPHOID BACTERIA

by

DR. A. PIJPER

Pathologist to the Municipality of Pretoria

There was a time when a typhoid bacillus was just a typhoid bacillus and nobody could see any difference between, say, a typhoid bacillus from Africa and one from Europe. In those days Public Health Officers were quite satisfied whenever there was an outbreak to start looking for a carrier and if a carrier was found then that carrier was incriminated as the cause of the outbreak without further ado. It was really in this way that the famous carrier whom everybody knows as "typhoid Mary" got her evil reputation. It is true that "typhoid Mary" was often found quite near typhoid outbreaks but as in those days the chances of typhoid outbreaks were very much larger than they are now, it is not quite so sure that "typhoid Mary" was really guilty of all the outbreaks that have been ascribed to her.

As stated above, there were no methods in those days to recognise whether the typhoid bacteria that "typhoid Mary" excreted were really the same as those found in the patients. Pretoria has for quite some time harboured a typhoid carrier who has caused a large number of small outbreaks in Pretoria where absolute proof could be produced that he really was the cause of these outbreaks and this person therefore seems entitled to become as famous as "typhoid Mary".

Some years ago Dr. Craigie, a Canadian bacteriologist, discovered or invented what is known as the phage typing method of spotting typhoid bacteria. The technique of this work is much too involved for this communication. Suffice it to say that it is done with the aid of a trained virus which eats typhoid bacteria but which is so fastidious and particular that once it has got the taste of one particular kind of typhoid bacteria it will refuse to eat any other. If one therefore possesses this particular virus which has been trained to differentiate between at least two dozen different typhoid bacteria one is in the position to recognise types of typhoid bacteria. In my laboratory this work has been undertaken since 1942 by Dr. C. G. Crocker, M.Sc., Ph.D., and has proved of great assistance in the epidemiology of typhoid fever.

It must be understood that typhoid bacilli never change their type. Through the work of Dr. Crocker it proved possible to show that a typhoid bacterium can live in one man for 40 years without changing its type. The history of this finding is as follows:—

A couple of years ago there was an outbreak of typhoid in Britain and the British workers found a type of typhoid bacterium which had never been seen in Britain. They traced the outbreak to a carrier who produced the same type of bacteria and it then came out that this carrier had been a soldier in the Anglo-Boer war and had had typhoid in South Africa. This curious type of typhoid bacteria was sent to Dr. Crocker and she could at once say that she knew this type very well because she had found it on the Witwatersrand in the Transvaal. There could therefore be no doubt that this man had kept this curious strain of typhoid bacteria alive in his body without any change for about 40 years.

We have had outbreaks in Pretoria where more than one carrier was under suspicion and by means of the typing test we were able to make sure which carrier was responsible. The typing test has also been very useful in the linking up of isolated cases in Pretoria and after such linking up the search for a carrier could naturally be properly organised. At the moment we know that there is another very exceptional curious strain causing occasional sickness in Pretoria and we are still looking for the carrier who is responsible. We once had an outbreak in which all the evidence at first pointed to a particular known carrier but here the phage typing test showed that this man was not the culprit and on further investigation the real carrier was found. Of course it is only through the very close co-operation between health service and laboratory which has always been such an important feature in Pretoria that such detective work can be undertaken and such good results can be achieved.

Of the 24 well known types of typhoid bacteria only 9 so far have been found in South Africa but it is quite possible that other types will be introduced from outside. So-called typed G strains were recently found by us in Johannesburg and this is the only time that this type was found here and it has never been found in Britain. This type G was originally found in a prisoner-of-war camp in the western desert and it seems likely that the infection has reached the Union from there. Although of the 24 well known types so far only 9 have been found in the Union this laboratory is still working on some types which have been isolated in South Africa and which probably are new types which will eventually be added to the official list. The official list of recognised types is kept at the headquarters of a new International Committee which was established for the special purpose of typing typhoid bacteria. The establishment of this International Committee took place at the International Congress for Microbiology in Copenhagen in 1947 which Congress was attended by Dr. Crocker and at that Congress she was appointed official representative for South Africa. The International Committee has its headquarters in London at a so-called Central Reference Laboratory under the guidance of Dr. A. Felix. This Central Reference Laboratory supplies selected laboratories in all countries with typing material

and is also prepared to assist in any difficulties that the national laboratories may experience. The Institute for Pathology of the Pretoria University which serves the needs of the Pretoria Municipal Health Service has been chosen as the National Reference Laboratory for South Africa and Dr. Crocker is in charge of the typing.

The Institute is trying to get strains of typhoid bacteria from all over the Union and cultures are being received regularly from Cape Town, Durban, Johannesburg and Bulawayo. It is hoped to extend this work during the course of this year and Medical Officers of Health through the Secretary of Health are invited to send typhoid cultures to the Institute. Strains which are found to be untypable are occasionally sent to the Central Reference Laboratory in London.

There is no need to enlarge upon the essential nature of this work for the maintenance of health in South Africa. It will also be understood that the work not only required the services of an expert but that there is a large amount of routine work to be undertaken quite apart from the research side of the undertaking. For these reasons it has become necessary to supply Dr. Crocker with a special technical assistant who is gradually learning the work and who does much of the routine measures in connection with the work. The Council for Scientific and Industrial Research has supplied the salary for this special assistant for the year 1948 and the year 1949 but for reasons best known to itself it has intimated that it is not prepared to continue paying this salary for the year 1950. Unless some other body steps into the breach and undertakes to pay this salary it seems inevitable that the work must come to an end. It must be added that the Pretoria Municipality does not make a special contribution for this work. Efforts of course will be made by the Institute to secure the salary of the assistant for the year 1950. As, however, the work now covers the whole Union it seems reasonable to expect that the money should come not just from Pretoria. It would surely be disastrous if the work should have to be abandoned for the lack of a mere £300 per year—a sum of money which is about as much as 2 or 3 cases of typhoid cost the community. There is no doubt that the work saves countless numbers of cases of typhoid and it seems false economy to abolish this valuable work and place the population of the Union at greater risks as regards typhoid than is necessary.

REPORT OF THE PRETORIA DENTAL CLINIC

for the year

1ST JULY, 1947, TO 30TH JUNE, 1948.

Dental Clinics which are controlled by the Pretoria Dental Board, consisting of Municipal, Provincial and Dental Association Representatives, are held for Europeans at the Clinic Buildings, Prinsloo Street, and for Non-Europeans at the Municipal Compound, Marabastad and at Atteridgeville.

The Provincial Administration and the City Council of Pretoria subsidise the Clinics.

A mobile unit has been loaned by the Education Department, but unfortunately the financial position of the clinic is such that the Dental Board cannot afford to pay for a driver and maintenance costs. An attempt, however, is being made to obtain these services from the Education Department. It must be remembered, however, that the City Council is not responsible for dental treatment of any kind, and in giving subsidy, the Council is already going beyond its obligations. The responsibility for financing dental treatment rests with authorities other than Local.

Attached hereto is a table showing the number of patients who attended and were treated at the clinics.

The work of the Clinics has increased considerably during the last year. For children alone the total operations for the year 1947-48 were 15,314 as compared with the figures for the year 1946-47 which were 11,544, showing an increase in operations amounting to 3,770. Over and above this, 44 orthodontic regulating appliances were made for children. In addition to the accompanying table, the following treatment was also given:—

ITEMS NOT INCLUDED IN THIS TABULATED REPORT.

Morning Clinics:

Number of Children Treated	860
Number of Extractions	1,149

Sub-Clinics:

Number of Children Treated	406
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Sub-Clinics:

Number of Teeth Extracted	638
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Meerhof Chronic Sick Home:

Number of Visits	3
Number of Children Treated	36
Number of Teeth Extracted	44
Number of Fillings Done	32

	PATIENTS.					EXAMINATIONS.	TREATMENTS.									
	ADMITTED.			DISCHARGED.			Fillings.	Root Therapy.	Prophylaxis.	Extractions.	PROSTHESES.					
	New.	Re-Visits.	Total.	Treatment Completed.	Casuals.						Total.	Full Upper and Lower.	Full Upper or Lower.	Partial.	Total.	Other Treatments.
1st JULY, 1947, TO 30th JUNE, 1948.																
CHILDREN	4,583	6,384	10,967	1,388	631	2,019	3,522	6,686	60	396	6,472	—	40	40	1,393	18,569
INDIGENT ADULTS ..	2,289	2,644	4,933	361	—	361	83	507	—	42	6,011	234	46	53	1,486	8,697
SEMI-INDIGENTS	85	120	205	12	—	12	4	28	—	2	218	9	3	3	63	339
TOTAL	6,957	9,148	16,105	1,761	631	2,392	3,609	7,221	60	440	12,701	243	49	96	2,942	27,605
NON-EUROPEANS	4,317	126	4,443	—	—	—	2	—	—	—	6,061	—	—	—	14	6,077

Regulation Appliances for Children—Orthodontia Department: 44.

CHILD WELFARE ACTIVITIES.

Several additional appointments were made to this section during the current year. In September a full time European Sister was appointed to supervise the Non-European work at the Compound. With this appointment the Compound and Bantule are now functioning as two entirely independent units. A relieving Sister was appointed during December. The present European Health Visiting Staff is now fourteen.

A second full-time Non-European Midwife was appointed for the midwifery services at Atteridgeville during October. The fourth appointment was that of a Non-European nurse who will have to devote her time to the clinics at the Compound and Bantule. In spite of these appointments recent statistical investigations in this sub-section of the Department have shown that we are still understaffed on the European side. If we wish to come up to the British and American Standards, additional appointments will have to be made in the near future. It has been quite impossible for the staff to do all the necessary follow-up work in connection with Child Welfare Activities.

The position in regard to our Non-European staff is more satisfactory. The Non-European areas are smaller and more densely populated, a smaller staff can cope with a larger number of visits and new births.

EUROPEAN CHILD WELFARE.

The number of Child Welfare Clinics conducted at various centres in town every week has increased from 18 to 22. During the year additional clinics were started at the following centres:—

Arcadia, Armstrong Berning Home, Corrylyn Creche and Danville.

At Danville the work is expanding very rapidly, and we had to start a third clinic session there during February, 1948. The sub-economic house, in which the clinic is at present held, is too small for the volume of work. It will be necessary to consider erecting a proper clinic, especially as the township itself is expanding rapidly. The work at Danville is very worthwhile as most of the residents are very co-operative, and they are in fact demanding more services than we are at the moment in a position to give.

A regular weekly clinic is also conducted at the European Creche. This has become necessary due to the very large proportion of infants and children under two years of age.

A regular clinic at the Armstrong Berning Home has become necessary for the same reason.

We expected to occupy the new clinic section of the „Gemeenskapsentrum” (Social Centre) erected by the Riviera Branch of the Vroue-Federasie early in 1948. As a result of various misunderstandings the clinic section of the building is not yet ready for occupation and we are still conducting a clinic in a small room attached to the Riviera Church Hall.

Much to our inconvenience, the clinic building at Villieria was not constructed during the course of the year. The urgency of a proper clinic building where we can render all services in connection with Child Welfare and Ante-natal work in that area of the town must again be stressed.

The alterations to the central clinic building in van der Walt Street were started in January, 1948. The temporary space is small and inconvenient and has certainly hampered our work. The epidemic of Poliomyelitis affected our attendance at the European Child Welfare clinics to a marked extent.

Our propaganda for increased breast feeding of infants has shown most encouraging results. As far as mothers attending the clinics regularly are concerned, we can show a marked increase in the number of infants still on the breast at the age of four months as compared with the figures of previous years.

ATTENDANCES AT CLINICS.

	First Attendances.	Re- Attendances.	Total Attendances.	Seen by Doctor.
1946-47	1,586	15,326	16,812	1,026
1947-48	1,241	15,356	16,597	1,841

The clinic attendances are very much the same as those of the previous year excepting that the number of children seen by the Doctor has increased greatly. No increase in clinic attendances can be expected until we have better clinic buildings and facilities.

DETAILED ATTENDANCES AT CLINICS.

Clinics.	First Attendances.		Re-Attendances.		Total Attendances.		Seen by Doctor.	
	1947-48.		1946-47.		1947-48.		1946-47.	
	1947-48.	1946-47.	1947-48.	1946-47.	1947-48.	1946-47.	1947-48.	1946-47.
Central (Tuesday)	71	91	964	930	1,035	1,021	681	285
Central (Friday)	62	131	726	1,273	788	1,304	—	30
Bloed Street	46	53	503	663	549	716	—	7
West End	129	145	1,246	1,258	1,375	1,403	6	—
Proclamation Hill	40	61	790	647	830	708	96	92
Iscor	24	54	461	606	485	660	—	9
Gezina	96	136	1,147	1,320	1,243	1,456	220	169
Villieria	121	134	831	1,203	952	1,337	174	231
Wonderboom South	68	66	730	641	798	707	—	4
Mayville	78	189	737	692	815	881	154	53
Capital Park	62	98	637	952	699	1,050	—	3
Hatfield	81	96	956	984	1,037	1,080	—	—
New Muckleneuk	29	35	482	521	511	556	—	—
Sunnyside	135	120	1,592	1,495	1,727	1,615	—	—
Riviera	46	71	741	605	787	676	—	2
Salvokop	14	23	359	405	373	428	—	1
Danville	44	38	848	612	892	650	360	131
Defence Reserve	12	16	254	292	266	308	—	—
Armstrong Berning	27	29	893	227	920	256	29	9
Corrylyn Creche	14	—	152	—	166	—	61	—
Arcadia	42	—	307	—	349	—	—	—
TOTAL	1,241	1,586	15,356	15,326	16,597	16,812	1,841	1,026

HOME VISITS BY HEALTH VISITORS.

	First Visits.	Subsequent Visits.	Number of Sick Children Visited.	Total Visits.
1946-47	3,887	14,375	931	14,375
1947-48	3,563	8,844	1,564	13,971

The number of home visits paid by the Health Visitors has also shown little variation from the previous year except that the number of sick children visited has increased considerably.

EUROPEAN ANTE-NATAL CLINICS.

	Central.		Proclamation Hill.		Danville.		Total.	
	1946-47.	1947-48.	1946-47.	1947-48.	1946-47.	1947-48.	1946-47.	1947-48.
No. of new cases	234	260	29	20	6	46	269	326
Total Attendances	1,133	1,242	197	152	41	322	1,371	1,716

European ante-natal clinics are conducted at three centres. There is a demand for additional ante-natal clinics, especially in the Innesdale area but at the moment we do not have the clinic buildings to meet the need. A large number of our patients are from Innesdale and they find it very difficult to travel by bus during the last few months of pregnancy. The expectant mother is beginning to realise the value of proper ante-natal care and some of them are taking a great interest in the diets prescribed as well as in the ante-natal and post-natal exercises. Due to lack of space we cannot teach them the exercises at the clinics, but we have procured a few books on exercises which are being circulated among some of the patients. This is naturally not as satisfactory as personal instruction.

Visits are being paid at the homes of those ante-natal cases who do not or cannot attend the clinics regularly. (A surprisingly large number of patients attending the central clinic come from the Peri-Urban areas).

EUROPEAN IMMUNISATION CLINICS.

A clinic is still conducted weekly at the Health Department and fortnightly at Danville. The demand for the combined Whooping Cough and Diphtheria injections is increasing rapidly. Unpleasant re-actions following injections are only experienced in children over the age of seven, where Alum Precipitate Toxoid is used.

Clinics for Therapeutic Whooping Cough injections are held twice a week on Tuesday and Friday mornings. Only a small number of patients have been done, but very satisfactory results have been reported.

An Immunisation clinic is conducted at the Creche. The number of children over two who have not been injected against Diphtheria is surprisingly large. On admission of the child, the parents are now requested to complete a consent form for immunisation against Whooping Cough and Diphtheria.

Number of persons fully immunised during the year against:—

Diphtheria.	Whooping Cough.
1,034	687

MIDWIFERY SUPERVISION.

The control of midwives is now well established. We have 42 qualified midwives and 3 unqualified registered midwives. During the year a meeting of midwives was called and many of their difficulties were discussed. It is felt that there is now better co-operation between the Department and the practising midwives.

The inspection of midwives' bags and registers is being carried out regularly by the Supervisor of midwives. When necessary midwives are seen at their homes and very frequently the Supervisor visits their patients with them during the puerperium.

It is difficult to assess the position regarding Puerperal Sepsis since the introduction of Penicillin. With this treatment the temperature goes down so rapidly and dramatically that many cases are not notified because they do not fall within the legal definition of Puerperal Sepsis.

July, 1947-June, 1948.

No. of Midwifery bags inspected.. ..	130
Special visits to midwives	150
Visits to Midwifery cases	10
Visits to Maternity Homes	14

NON-EUROPEAN CHILD WELFARE.

During the year one of our Non-European Nurses obtained her Health Visitors and School Nurses Certificate.

Three European Health Visitors devote all their time to Non-European work. They are in charge at Atteridgeville, Bantule and the Compound. The Child Welfare work at Bantule has increased tremendously. The work there is particularly difficult on account of the very overcrowded and insanitary living conditions. The work is still further hampered by the fact that the clinic building is altogether too small to cope with the amount of work. In addition the clinic is under the same roof as the administrative section of the Non-European Affairs Department. This is a most unsatisfactory arrangement. We are already using more space than was originally allowed us by the Administration of the Native and Asiatic Affairs Department and we feel that we are encroaching on their space and that expansion is impossible. In spite of all the difficulties, it can with pleasure be reported, that the Infantile Mortality rate was reduced during the past year.

The Infant Feeding Scheme has passed the teething stage and is well established and very successful. This scheme was previously conducted in the clinic itself, but due to lack of space it had to be removed to the Food Distribution Centre. Again lack of office facilities and lack of proper premises, is making the further expansion of this scheme impossible. Under present working conditions we can never feed more than a maximum of sixty infants under the age of two. It is considered that this scheme merits further expansion.

At the Compound the work has also expanded very satisfactorily, since there is a full time European Sister in Charge, and because the new clinic building has made the work very much easier. The Indian Clinic which was previously conducted in a classroom at the Indian School, is now also run at the Compound Hospital Clinic.

At Atteridgeville the Child Welfare work has shown very little change, except that there was an all round satisfactory increase in work. I must again stress the unsuitability of the present clinic buildings.

ATTENDANCES AT CLINICS.

	Compound Hospital.	Atteridge- ville.	Bantule.	Railway Compound.
First Attendances—				
1947-48	263	322	216	17
1946-47	104	291	199	104
Re-Attendances—				
1947-48	2,699	6,771	5,853	485
1946-47	2,041	5,953	3,944	675
Seen by Doctor—				
1947-48	526	1,673	687	1
1946-47	406	953	429	69

The Clinic Attendances show an all round increase in work. At Bantule the increase is remarkable. The number of cases seen by the Doctor has also increased, especially at Atteridgeville.

NON-EUROPEAN ANTE-NATAL CLINICS.

Three Non-European ante-natal clinics are now conducted weekly. One at the Compound, one at Atteridgeville, and one at Bantule. The clinic at Bantule was started to reduce the numbers at the Compound, and also to give additional facilities for the training of Medical Students in ante- and post-natal work. At all three centres the clinics are very well attended. The number attending at the Compound was not materially affected by the additional clinic at Bantule. The clinic is still dealing with too large a number of patients and at some future date additional assistance will be required. Many of the patients attending the ante-natal clinics show marked signs of mal-nourishment. The only way in which we are able to counteract this in a slight way, has been by issuing powdered milk to necessitous cases. At some future date it may be possible to start a feeding scheme for pregnant women in the various locations.

The Non-European community is beginning to appreciate the value of proper ante-natal care and trained assistance at their confinements. Previously most of the confinements among the natives were conducted by untrained people, frequently a relative or friend. During the past year 474 native mothers were attended by one of our trained midwives, as against 286 who were attended by untrained registered nurses, or by friends and relatives. At Bantule very little use was made of trained assistance, because until two months ago, the midwife who had to serve that area was not resident in Bantule, and it was very difficult to call her in time. As we now have a midwife living in Bantule, it is anticipated that her services will be used to a much greater extent.

HOME VISITS.

	Natives.	Asiatics.	Eurafricans.
First visits to newly-born infants—			
1947-48	849	205	103
1946-47	738	223	87
Subsequent visits—			
1947-48	9,902	1,900	972
1946-47	9,846	1,819	1,194
Visits to sick children—			
1947-48	1,007	273	213
1946-47	828	284	230
No. of sick children visited—			
1947-48	326	234	171
1946-47	441	197	180
1947-48	11,882	2,395	1,300
1946-47	11,594	2,348	1,519

NON-EUROPEAN ANTE-NATAL CLINICS.

	Atteridgeville.		Compound.		Bantule.		Total.	
	1947-48.	1946-47.	1947-48.	1946-47.	1947-48.	1946-47.	1947-48.	1946-47.
No. of cases reporting at Clinic	357	304	511	501	126	—	994	805
No. of all attendances at clinic	1,636	1,493	2,103	2,310	675	—	4,414	3,803

IMMUNISATION.

Facilities for immunisation against Diphtheria and Whooping Cough and vaccination against Smallpox are available at the Compound and Bantule Child Welfare Clinics. This service will also be available in Atteridgeville during the coming year. It is, however, still very difficult to convince the Non-European of the value of these measures. It is very frequently found that they will attend for the first injection but it requires a lot of persuasion to get them to attend for the full course.

The incidence of Diphtheria amongst the Non-Europeans has been very small this year.

FEEDING OF SCHOOL AND PRE-SCHOOL CHILDREN.

As the result of a resolution passed by the City Council, and at the request of the Department of Native Education, a Central Committee was formed to run the various feeding schemes for the school-going child and the pre-school child. The Committee consists of representatives of this Department, Government Central Feeding Scheme Committee, members of the Native and Asiatic Affairs Department and representatives from the Native community. The money for this undertaking is derived from the Native Education Department and grants from the City Council. Approximately 3,000 school-going children and approximately 300

pre-school children are being fed under this scheme. The food is prepared at the soup kitchen in Atteridgeville and from there distributed to the Non-European schools within the Municipal area. An effort is being made to give the children the best possible value for the money available. Care is taken to introduce into this food as many as possible of the elements that we know are lacking in the diet of the Urban Native. Great stress is being laid on the preservation of the maximum vitamin content and the introduction of proteins and fats. This is a very big and difficult undertaking but it is hoped that benefit will be derived from it.

GENERAL.

The system of monthly tenders for medicine has proved a failure. It was decided therefore, that annual tenders should be called for. A small pharmacopeia for stock mixtures was drawn up a complete list of requirements for all the clinics for a period of one year was estimated and tenders called for. It is hoped that the new scheme will start functioning in August, 1948.

It is felt that there should be closer co-operation between the Child Welfare section of the Health Department and the general practitioners and paediatricians of the City. With this in view we have from time to time invited medical practitioners to give talks to the Health Visitors on topics of child health. During this year we have had two very interesting talks, one from Professor Jansen on breast feeding and one from Dr. du Toit on Poliomyelitis. It is hoped in future to arrange an address every two months as we feel that we have benefited from them.

INSPECTION OF NURSING HOMES AND HOSPITALS.

All Nursing Homes and Hospitals other than the Pretoria General Hospital were inspected by the Municipal Health Department on behalf of the Secretary for Health.

The Department's detailed report was submitted to the Secretary for Health.

There are two Hospitals, four Nursing Homes and one Convalescent Home in the City. One Hospital (83 beds), and two Nursing Homes (35 and 9 beds, respectively) are purely for Maternity cases.

For Non-Europeans there are twelve beds in the Maternity section of the Pretoria General Hospital.

All these establishments were generally satisfactory. One additional Nursing Home, and one Convalescent Home were established during the year.

There is still an urgent need for providing additional accommodation for midwifery cases, especially for the Non-Europeans, among whom confinements often are conducted under deplorable conditions in overcrowded homes.

Those in charge of the Hospitals and Homes have been most co-operative and have always readily brought about such changes and improvements as were found necessary.

EXTRACT FROM THE REPORT OF THE PRETORIA NURSERY SCHOOL COMMITTEE FOR THE NINE MONTHS ENDED 30th DECEMBER, 1947.

(By Dr. Ruth Arndt, Chairman).

Representatives:

Pretoria City Council—The Acting Medical Officer of Health, Mrs. E. O'C. Maggs, and Councillor T. J. Frates.

Pretoria Parents' Association—Mrs. P. H. de Villiers; Mrs. J. A. van Schaik.

Pretoria Benevolent Society—Mrs. K. Stead.

West End Nursery Schools Birthday Club—Mrs. L. Milner.

Committee Changes:

Mrs. D. J. de Villiers resigned during the year on account of pressure of work. Mrs. Bell-John, who had represented the Child Welfare for many years, handed in her resignation before leaving for an extended visit to England. The Committee regrets the loss of these two members and appreciates the services they have given.

Mrs. L. C. Besaans was replaced as City Council representative by Mrs. E. O'C. Maggs, and Mrs. M. Fouche, representing the Parents' Association, by Mrs. P. H. de Villiers.

During six months, when the Chairman was overseas, Prof. Bosman kindly acted as Chairman of the Committee.

Enrolment:

	Good Hope.	West End.
Present enrolment—		
English speaking	2	26
Afrikaans speaking	34	19
Average enrolment	36	45
Average attendance	35.8	44.7
Total No. admitted since April 1, 1947	29.4	39.4
Left for Government Schools	16	14
Left for other reasons	6	1
Waiting List	10	13
	—	120

Good Hope continues as an almost 100% Afrikaans-speaking school, while at West End the two language groups have always been fairly evenly divided.

The Principal at Good Hope found it impracticable to keep a waiting list. The turnover at the school is very small and places open up so slowly as to be quite discouraging for those who are waiting to be admitted. Moreover, the mothers of this district, many of whom work outside their own homes, find it necessary to make other arrangements for their children if they cannot be accepted at the school upon application.

Health:

The usual health supervision was carried on, with daily health inspection by the school principals, a weekly visit by the Municipal Health Visitor, and several complete medical examinations by Dr. G. L. Philipson, Hon. medical adviser. At Good Hope, through the offices of the school, five children received free hospital treatment, two at the Isolation Hospital, and three, for minor operations, at the General Hospital. A dentist from the Children's Dental Clinic paid one visit to each school and examined all the children. Fifteen children at Good Hope were attended to at the Clinic and two received private dental care. At West End all those needing attention were referred to their own dentists.

A whooping cough epidemic swept the West End of Pretoria during the last quarter and more than half of the children at West End School caught the disease. One case of tick fever was the only other disease reported at this school.

At Good Hope, the Medical Officer of Health advised the closing of the school for ten days in October on account of an outbreak of measles, of which 4 cases developed. In addition, there were 2 cases of scarlet fever, 2 of chicken pox, 2 of German measles, 2 of mumps, and 1 of whooping cough. In the congested homes of Good Hope area, it is exceedingly difficult to isolate children from infection, and the chief attack on the problem of disease must be the building up of the children's health in order to strengthen their resistance, together with the preventative measure of inoculations.

Parents' Activities:

Good Hope Nursery School held four meetings for parents, with programmes as follows:—

April	Entertainment by the children with songs, finger play and percussion band.
June	Talk by Dr. Schoeman on Children's Behaviour .
August	Film on Kruger National Park, by Mr. Wolff.
November	Talk by Mrs. A. G. Webb, of the Union Health Department, on Summer Meals .

Experience seems to show that at Good Hope Nursery School, evening meetings for parents are not well attended, but that mothers can be brought together over a social cup of tea in the afternoons or mornings. This plan, unfortunately, rules out the attendance of fathers at these parents' meetings.

At West End Nursery School, Dr. Olkers gave an evening lecture in May on **The Moral Development of the Child**. The parents' efforts were almost completely absorbed by preparations for an all-day fete held in September. Parents and staff worked very hard for months and enlisted wide community support. The fete was opened by the Deputy Mayoress, and realised the sum of £265 clear of expenses. The money was marked by the Committee as a special fund for equipment for West End Nursery School.

At the end of the year, the parents at both schools showed their appreciation by organising farewell parties for the retiring staff members. At the West End function, Miss Beryl Reynolds showed a colour film and Miss Anne Poht, and Mrs. Loveday and Felicity gave a musical programme.

Special Events:

The Good Hope children were taken to the Loftus grounds to see the Royal visitors. They also enjoyed two parties at school, before the mid-year vacation and at the close of the last term. On the latter occasion, each child received a fine Christmas present from Mrs. J. M. Murray's wonderful collection of rehabilitated toys. West End School held its annual Christmas tree celebration to which the school parents were invited and the children gave a simple beautiful Christmas play.

An interesting innovation was the invitation by Mrs. Prinsloo of Witbank to two of the Good Hope Nursery School children to spend a week's holiday on her farm.

Students-in-Training:

Both schools have again been used as practice centres for the Pre-School Training Course at the University of Pretoria. Students from the Witwatersrand Training Centre in Johannesburg also came to Good Hope for a few weeks' practical work.

Furnishings and Equipment:

The staff of West End School is to be congratulated on several attractive pieces of equipment which they made for the school, including two blanket racks, 2 storage cupboards, and a number of pieces of furniture for the dolls' corner.

The Committee is indebted to the Provincial Stores for allowing it to purchase through them needed replenishments of crockery and linen.

Several small items of equipment have already been purchased from the special fund for West End, and also an outdoor storage shed has been procured by adding one wall and a roof to the niche behind the native boy's room.

Staff:

At the close of the year, the Principal of West End School, Miss E. Anderssen, resigned her post to take on the Principalship at Eastern Suburbs Nursery School. Mrs. I. Eksteen, Principal of Good Hope, and Mrs. E. de Klerck, assistant at that school, also resigned for personal reasons. The Committee records its appreciation of the work of these ladies over a period of several years, and extends to them its best wishes for their future spheres of activity.

Miss I. von Ahlften, assistant at West End, was appointed Principal there, and Miss Mary Glennie who completed her training at Buxton Pre-School Training Centre in 1947, was appointed as assistant. At Good Hope, Miss Pamela Kingwill, who also qualified at Buxton and who has been in charge of the Municipal Nursery School at East London, and Miss H. v. d. Merwe who finished her training in 1947 at the Witwatersrand Pre-School Training College, were appointed as Principal and Assistant respectively.

Dr. Philipson, who has generously acted for a number of years as Honorary Physician to both nursery schools, found it necessary to give up the work at the end of the year, because of a change of residence. The Committee is deeply indebted to Dr. Philipson and regrets losing her services.

Finances:

Since the financial statements hereto appended cover a period of only nine months, comparison with the figures of former years will be of little value. However, attention may be drawn to the following points:—

The overdraft of £207 at the beginning of the year was liquidated with the proceeds of an extraordinary grant of £325 from the Provincial Administration. The need to secure further bank facilities was avoided by borrowing from the equipment fund of £265, the proceeds of the function at the West End School. Against the bank balance of £137, there must, accordingly, be set off the new liability of £244. 0s. 8d., the net amount still owing to that fund.

It is very evident that the Committee is carrying a crushing burden of financial responsibility. In spite of the special help of the Province of over £300 and the personal efforts of several members of the Committee, who begged over £100 in donations, the balance sheet shows a debt at the end of the year of over £100.

While fully appreciating the assistance received from the Local Authority and the Provincial Administration, it must be pointed out that this Committee has now for sixteen years, like many similar voluntary bodies in the country, been performing a public service which is being more and more widely acknowledged to be an indispensable part of any adequate child-care programme. Nursery schools are no longer in the experimental or probationary stage. They have proved themselves. I make bold to say that the time is overdue for a system of public financing of this social-educational institution which will ensure its proper functioning as an essential public service and not a begging charity.

Acknowledgements:

Once again, the Nursery Schools are deeply indebted to Mrs. Pentz, who, in addition to continuing almost single-handed her effort of the Birthday Club, and her constant activities in securing gifts of equipment for both schools, in June, at serious cost to her health, organised the street collection, which was then run by Mrs. van Schaik.

The Birthday Club has annually since 1938 gathered in contributions large and small from hundreds of members, and if it were not for this help and that of the street collection, with which many friends assist each year, the Committee would certainly not be able to make ends meet.

To all who have helped and contributed in these undertakings, sincere thanks are extended. Further, the Committee acknowledges with gratitude generous assistance from many quarters including the following:—

Financial Contributions.—Provincial Administration (subsidy and special grants); Pretoria City Council, grant-in-aid; Pretoria Parents' Association, £25; United Building Society, £5; Rand Provident Building Society, £2. 2s. 0d.; collected by Mr. J. A. Hofman; Pretoria Metal Industries, £25; Herbert Evans and Co., £15. 15s. 0d.; J. P. Lamb, £10; Ballantine Ltd., £5. 5s. 0d.; Minerva Press, £5. 5s. 0d.; Balmac Timbers and Hardware Ltd., £5. 5s. 0d.; de Loor's Ltd., £5. 5s. 0d.; Boerstra and Sons, £5. 5s. 0d.; Master Builders' Association, £5. 5s. 0d.; "The Card Friends", £5. 5s. 0d.; Stewarts and Lloyds of S.A. Ltd., £5; Hunt, Leuchars and Hepburn Ltd., £5; Wm. McIntosh, £5; collected by Mrs. P. H. de Villiers, £10; J. D. M. Philip, £5; Leo C. Besaans, £3. 3s. 0d.; J. J. I. Middleton, £2. 2s. 0d.; C. G. du Toit, £2. 2s. 0d.

Gifts in Kind.—Sand-pit cover and making stoep blinds, Union Canvas Co.; Canopy for jungle gym and dolls' house curtains, V. S. Simpson Ltd.; coloured paper, Government Printing Works; Newsprint, Pretoria News; Plywood, Hunt, Leuchars and Hepburn Ltd.;

Mirror, Modern House Furnishers Ltd.; Pruning shears, Hillman Bros. Ltd.; hedge shears, Inland Hardware Co.; Traffic signs and yard rubbish basket, Municipal Traffic Department; Ornaments for gold-fish bowl, Starke-Ayres; Linoleum, Lilienfeld Furnishing Co. Ltd.; Divan and mattress, Senex Furnishers Ltd.; Children's clothing, Mrs. Pentz, Mrs. Wright, Miss May Slade; Toys, Mrs. J. M. Murray, Prof. J. C. Bosman; Cupboard for staff wash-room, Mr. J. von Ahlften; Merry-go-round and 2 trestles, Mr. L. B. Poole; stoep blinds for West End, Mr. Aaron Orkin; Regular supply of flowers, Mrs. W. de Klerk; Wire mesh, Mr. Zway; Wooden beams, Mr. v. d. Linde; Sand-pit cover, Mr. D. Murdoch; Divan cover and cushions, Mr. A. van Wyk.

Services.—Medical supervision, Dr. A. G. Philipson; Services of District Health Visitor, Municipal Health Department; Examination and treatment of children, Pretoria Dental Clinic; Repair and unkeep of Good Hope building and grounds, and provision of night watchman for same, City Council; Purchase of supplies, Provincial Stores; Repairs of toys and electric stove, Mr. Hillcoat; Transport and erection of stalls for fete, W. Stretton Ltd.; Punch-and-Judy show, Mr. Wessels; Refinishing of lavatory seats, Messrs. Rourke and Orkin; Tuning of piano, Mr. Lund; The Press; The Honorary Auditor, Mr. S. W. van Heerden.

To all these, as well as to any others who contributed in any way to the Schools' activities, the Committee owes sincere thanks.

In conclusion, thanks are also extended to all members of the Committee for their help and co-operation throughout the year.

HEALTH PROPAGANDA.

"Education in preference to prosecution" has always been our motto. Health education and propaganda is unfortunately very costly, but it has an undisputed value in lowering sickness and death rates and increasing production and earning power.

Every member of this Department endeavours amongst his daily contacts to spread health ideas. This is one of the most valuable means of education in health apart from this we have posters with some health message displayed at various points on street hoardings in the City. These posters are changed from time to time.

About 100 Venereal Diseases posters advertising the clinics and the value of early treatment are displayed in all Municipal Public Conveniences as well as those on the Railway Station. The posters are also displayed in many local pharmacies.

The seven vans in use by the Department are all cream-coloured and have painted on either side of the panel some health slogan as well as a colourful picture depicting some clinic or other health service.

Many shops handling foodstuffs have co-operated by displaying the following notice:—

"This firm has, at the request of the Council's Health Department, provided suitable instruments for the handling of unwrapped or unprotected food.

Your co-operation in insisting on the use of these instruments when making your purchases will be appreciated by the Management".

By arrangement with the Transvaal Advertising Contractors, Ltd., three filmlets are shown in weekly rotation, in each of a circuit of seven cinemas in the City. The themes of these filmlets are "Child Welfare", "Inoculation against Diphtheria" and "Food and Nutrition".

In addition the Department also has its own projector and is a member of the Film Library of the Union Education Department, from whom it is always possible to obtain suitable films to illustrate lectures to the public on health matters. Many such lectures on a variety of subjects were given during the past year.

The following is a list of some of the subjects:—

"The value of Pasteurization of milk".

"Poliomyelitis".

"What the Municipal Health Department offers the Mother and Child of Pretoria".

"Nuwe Rigtings in Openbare Gesondheid".

"The Influence of Physical Factors on the Character Development of the Child".

"Talks on Venereal Diseases to the Red Cross Society, the Toc H-Women's Group, Y.M.C.A. and the Rotary Club".

Films on Tuberculosis and Venereal Diseases from the library were also shown in the native locations.

As in the past the Press has again played a great part in so liberally and co-operatively helping us in our health education.

This was especially evident during the outbreak of Poliomyelitis.

One local newspaper for one full week devoted a series of daily articles to preventive health matters.

We, as well as the public, are indebted to the Press for its interest and assistance in the well being of the people.

MEDICAL EXAMINATIONS CONDUCTED BY MEDICAL OFFICERS IN THE HEALTH DEPARTMENT FOR THE PERIOD 1st JULY, 1947, TO 30th JUNE, 1948.

A total of 829 such medical examinations were conducted.

This figure includes medical examinations of persons entering the Municipal Service, special medical examinations under the Workmen's Compensation Act or for Pension Fund purposes or for any other reason.

ABATTOIR AND MEAT SUPPLIES.

The details regarding animals slaughtered during the twelve months July, 1947, to June, 1948, was as follows:—

Oxen.	Cows.	Bulls.	Calves.	Sheep.	Goats.	Pigs.	Total.
49,330	8,042	219	4,206	63,190	1,180	27,997	154,164
						1947-48.	1946-47.
Total Cattle					57,591	45,303	
Total Sheep and Goats					64,370	93,828	
Total Calves					4,206	4,026	
Total Pigs					27,997	20,473	
TOTAL ANIMALS SLAUGHTERED					<u>154,164</u>	<u>163,630</u>	

The following carcasses, organs, etc., condemned:—

	Cattle.	Calves.	Sheep and Goats.	Pigs.
Carcasses	1,244	127	20	1,679
Quarters	28	—	8	8
Livers	6,767	—	5,961	—
Lungs	702	—	93	—
Plucks	912	—	274	2,699
Heads	348	—	—	511
Tongues	151	—	—	490
Hearts	38	—	—	—
Kidneys	48	—	—	—
Tripes	16	—	—	—
Intestines	155	—	7,590	—
Tails	19	—	—	—
Visceras	4,235	—	—	1,679

Imported Meat Examined:

	Beef.	Mutton.	Pork.
	Carcases.	Carcases.	Carcases.
	10,645	18,317	3
Condemned:	1	12	
Detained:	86	20 (Cysticercosis).	

Percentage of Carcasses condemned for all diseases was as follows:—

	1946-47.	1947-48.
Cattle	2.088%	2.160%
Calves	3.253%	3.019%
Sheep and Goats	0.085%	.031%
Pigs	6.271%	5.997%

Incidence of Measles:—

	Cattle.	Pigs.
No. affective	3,657—6.349%	2,017—7.204%
No. condemned	656—1.139%	1,426—5.093%
No. detained	3,001—5.210%	591—2.111%

Incidence of Tuberculosis:—

No. affected	59— .102%	607—2.168%
No. condemned	40— .069%	119— .475%
No. localised	19— .033%	448—1.743%

Other Diseases:—

Actinomycosis.—There were 82 cases of Loc. Actinomycosis, the organs affected were condemned.

Anaemia.—One Pork carcase was condemned.

Caseous Lymphadenitis.—4 Mutton carcasses and 9 quarters of mutton were condemned and 218 carcasses of mutton were affected.

Bruising.—60 Beef carcasses, 18 quarters Beef, 47,271 lbs. Beef; 1 Veal carcass; 2 Mutton carcasses, 20 lbs. Mutton; 6 Pork carcasses, 4 quarters Pork, and 591 lbs. Pork were condemned.

Defective Bleeding.—11 Beef carcasses were condemned.

Emaciation.—176 Beef carcasses, 29 Veal carcasses, 5 Mutton carcasses and 76 Pork carcasses were condemned.

Enteritis.—1 Veal carcass and 1 Pork carcass were condemned.

Follicular Mange.—3 Pork carcasses were condemned.

Gangrene.—28 Beef carcasses; 1 Mutton carcass and 7 Pork carcasses were condemned.

Immaturity.—18 Veal carcasses were condemned.

Jaundice.—14 Beef carcasses; 5 Veal carcasses, 3 Mutton carcasses were condemned.

Joint-ill.—2 Veal carcasses were condemned.

Lympho-Sarcoma.—1 Beef carcass was condemned.

Malignant Tumours.—2 Beef carcasses were condemned.

Moribund.—4 Beef carcasses; 1 Mutton carcass and 1 Pork carcass were condemned.

Melanosis.—3 Pork carcasses were condemned.

Multiple Abscesses.—7 Beef carcasses; 7 quarters Beef; 4 Pork carcasses and 1 Mutton carcass were condemned.

Navel-ill.—64 Veal carcasses were condemned.

Necrosis.—1 Veal carcass was condemned.

Peritonitis.—41 Beef carcasses and 1 Pork carcass were condemned.

Pleuritis.—7 Beef carcasses were condemned.

Pleurisy and Peritonitis.—88 Beef carcasses and 1 Veal carcass were condemned.

Pyæmia.—10 Beef carcasses; 3 Veal carcasses and 1 Pork carcass were condemned.

Red-Water.—2 Beef carcasses were condemned.

Sarcosporidiosis.—2 Beef carcasses were condemned.

Septic Mastitis.—8 Beef carcasses and 1 Pork carcass were condemned.

Septic Metritis.—13 Beef carcasses were condemned.

Septicaemia.—2 Veal carcasses were condemned.

Septic Nephritis.—11 Beef carcasses were condemned.

Septic Peritonitis.—2 Beef carcasses and 1 Pork carcass were condemned.

Septic Pleuritis.—2 Beef carcasses were condemned.

Septic Pericarditis.—4 Beef carcasses were condemned.

Septic Pneumonia.—43 Beef carcasses and 10 Pork carcasses were condemned.

Septic Orchitis.—17 Pork carcasses were condemned.

Taenia Echinococcus.—1 Pork carcass was condemned.

Uremia.—1 Mutton carcass was condemned.

Weight of Carcase, Quarters and Portions condemned:—

Beef	612,768 lbs. or 306.38 tons.
Veal	5,776 lbs. or 2.38 tons.
Mutton	660 lbs. or .33 tons.
Pork	150,503 lbs. or 75.25 tons.

Inspection of Butcher Shops:

All butcher shops were regularly inspected as a follow-up inspection, also to check on meat being imported and sold without first being submitted for inspection and stamping at the Abattoir.

Comment:

Supplies of cattle increased by 27% over the previous year, 57,591 compared with 45,303. The numbers of sheep declined by about 30%, 64,370 compared with 93,828, and pigs improved by 37%, 27,997 compared with 20,473.

The average quality of the cattle was noticeably poorer than in any previous year. This is evidenced by the greatly increased weight of beef condemned, 306 tons as against 208 tons

the previous year, an increase of 50%. In the case of pigs the statistics show the same relative increase in the rate of condemnation namely 50%, 75 tons compared with 50 tons.

On the whole supplies were better maintained and fluctuations were less marked than in previous years in the case of sheep. Owing to good late summer rains in the Bushveld areas of the Transvaal from where the bulk of our cattle are derived, supplies fell off sharply in April, May and June which are normally months of peak supplies. Prices are then also at their lowest and most stock owners decided to hold their cattle back for the higher prices in spring, as the grazing was still good. It seems reasonable therefore to expect heavy supplies of cattle for October and November.

The falling off in sheep supplies is ascribed largely to the very high prices for wool.

Condemnation:

There was no significant change in the incidence of the major diseases. Cysticercosis in both cattle and pigs showed a slightly lower incidence and the percentage of Tuberculosis cases was slightly lower in cattle and higher in pigs.

The increased rate of condemnation was due solely to the decline in quality and condition leading to higher rate of condemnation for conditions such as Emaciation, Bruising, Peritonitis and Pleuritis.

Revenue:

The revenue for the year showed a sharp increase over the previous year of over £7,000. Increased supplies of slaughter stock accounted for a small portion of the increase. The bulk of the increase though was due to the improved methods of by-product, production and increased prices obtained for stock feed, fertilizer, and tallow. These accounted for over £5,000 of the increased revenue.

Visit Overseas of the Veterinary Officer:

At the end of the financial year the Council decided to send its Veterinary Officer overseas⁸ to study Abattoir construction and by-product manufacture in Great Britain and North America in view of the Council's intention of rebuilding the Abattoirs on another more convenient site.

DAIRIES AND MILK CONTROL.

Dairy Licences:

At the end of the year the number of applications for dairy licences approved by the Department stood at 263 which reflects an increase of 37 on the number of licences issued during the previous year. This increase was the result of augmentation of producer licences by 35 and distributors licences by two while the number in respect of producer-distributors remained unchanged. The licence changes which occurred during the year are as follows:—

	New Licences.	Licences Surrendered.	Licences Refused.	Licences Transferred.	Increase or Decrease.
Producers	58	21	2	16	+35
Producer-distributors	—	—	—	1	—
Distributors	3	1	—	7	+ 2
	<u>61</u>	<u>22</u>	<u>2</u>	<u>24</u>	<u>+37</u>

The distribution of the 263 dairy licences is set out in the following table:—

Situation of Premises:

Type of Licence—	Urban.	Within 20 miles.	Rural 20–30 miles.	Beyond 30 miles.	Total.
Producer	3	79	34	73	189
Producer-distributor	8	2	—	—	10
Distributor	64	—	—	—	64
TOTAL	<u>75</u>	<u>81</u>	<u>34</u>	<u>73</u>	<u>263</u>

Milk Supplies:

Total number of producing premises	199
Approximate number of cows kept	13,300
Approximate daily gallonage	16,000

The total gallonage consumed in the City is estimated at 16,000. Of this amount 15,300 gallons are derived from 189 producers, 300 gallons from producer distributors and 400 gallons are introduced from the Johannesburg Milk Pool. The amount of milk from the latter source decreased from 2,600 gallons during the previous year to approximately 400 gallons and has been augmented by supplies derived from an increased number of 35 new producers who were licensed during the year. The milk derived from the Milk pool is all pasteurised and is supplied

to the Pretoria Garrison Institute and to schools in the City. In last years report it was noted that the Department has no control over the milk introduced by the school authorities and that this matter had been taken up with the Union Health Department but as yet no final ruling has been given on this matter.

The total daily gallonage varied considerably during the year and at periods an acute milk shortage was experienced in the City. During one of these periods additional milk supplies were obtained from Bloemfontein, Klerksdorp and Warrenton. These supplies were all pasteurised and were introduced under special permit issued by the Department. It is pleasing to note the decrease in the amount of such milk derived from sources not under the direct control of the Department, and for which the Department at the request of the dairy trade had from time to time to issue special permission for its introduction in order to augment the supplies during periods of shortage. One local dairy which was responsible for the introduction of approximately 2,000 gallons of this milk throughout the previous year completely discontinued this supply and this has now mainly been replaced by supplies from producers in the Carolina district who have been licensed and are under the control of the Department. In view of the distance from Pretoria, these supplies are delivered at a collecting depot in Carolina, cooled and thereafter despatched to Pretoria.

It is also pleasing to record that there has been a great decrease in the number of cattle kept by the eight producer-distributors who still exist in the suburbs. The indications are that before long most, if not all, of these dairies in the suburbs will in all probability cease to exist as such. Together they produce approximately 300 gallons of milk daily and together have to purchase 350 gallons daily directly from rural producers.

Of the 16,000 gallons of milk consumed daily in the City the approximate number of gallons consumed as pasteurised milk is 10,000 gallons or 62.5% of the total supply. Of the total quantity of raw milk produced by producer-distributors and that which enters the City as raw milk from licensed producers 61.6% is pasteurised at five dairies in the City. During the year pasteurisation was undertaken by two dairies for the first time, one an existing dairy where new pasteurisation plant was installed and the other a newly-built dairy where a modern pasteurisation plant was erected. One new dairy which is to be occupied by a firm which at present handles approximately half of the total milk supply is in course of erection and will be equipped with the most modern pasteurisation machinery and apparatus. Adequate plants will therefore in the near future be available to deal with the entire milk supply of the City.

Personnel Employed in the Milk Trade:

(The figures given below are approximate).

Employed by—	European.	Natives.
(a) Producers	225	1,114
(b) Producer-distributor	14	41
(c) Distributors	87	397
TOTAL	326	1,552

Typhoid Testing of Dairy Personnel:

During the year 85 dairies (Producers, producer-distributors and distributors) submitted their dairy staff for typhoid testing. 736 Dairy employees were tested of which 100 were Europeans and 636 natives. Of this number 374 (66 Europeans and 308 natives) are employed by distributors in dairies in the City and 362 (34 Europeans and 328 natives) are employed by producer-distributors and by producers on dairy farms. Five Europeans (5%) and 68 natives (10.7%) were blood VI (+) total 73 (9.9%).

Further stool and urine examinations of the five Europeans were all negative. Of the 68 natives 44 were detained in the typhoid carrier camp and on further stool and urine examinations two were found to be urinary carriers. Of the remaining 24 natives two had been tested on a previous occasion; five refused to be admitted to the carrier camp but stool and urine examinations were found to be negative for B typhosus; 12 were from dairies a great distance from the Municipal area and the dairies concerned were instructed not to employ them in the handling of milk or on the dairy farm, and 5 absconded.

Dairy Inspection:

2,472 Inspections of dairy premises were carried out during the year. The inspection of producers' premises on farms and the premises of producer-distributor was done by three dairy inspectors while the inspection of dairies and milk shops in the Municipal area was done by both dairy inspectors and the district health inspectors. Producers' premises were visited both during day and early morning milking and every effort was made to improve the hygiene of milk production and the handling and distribution of milk in the City. 605 Contraventions were dealt with by the inspectors at the time of inspection while in 122 cases it was found necessary to serve notices or write letters to dairymen in connection with contraventions of the Council's Dairy By-laws.

Milk Tests:

One Health Inspector was employed full time on the collection of milk samples for the various tests. Details of the samples taken for these tests are as follows:—

1. **Bacteriological examination—**

- (a) Plate counts 403 Milk samples.
- (b) Breed Smear Counts 19,989 Milk samples.
- (c) Microscopic Mastitis examinations 2,220 Milk samples (555 cows).
- (d) Presumptive coliform tests 1,993 Milk samples.

2. **Chemical Analysis** 466 Milk samples.3. **Disc Sediment tests for visible dirt** 488 Milk samples.4. **Phosphates tests for pasteurised milk** 829 Milk samples.

The results of the tests conducted are as follows:—

1. **Bacteriological examination.**(a) **Plate counts:—**

Number of samples taken	403
Number which conformed to the legal standard	305
Number which contained excess micro-organisms (warnings issued)	64
Number which contained excess micro-organisms (prosecuted)	6
Number which contained excess B. coli (warnings issued)	17
Number which contained excess B. coli (prosecuted)	Nil
Number which contained excess micro-organisms and B. coli (warnings issued)	8
Number which contained excess micro-organisms and B. coli (prosecuted)	3
Total number of warnings issued	89
Total number of prosecutions	9

Bacterial Examination of Milk, 1947-48.

No. Collected.	No. up to Standard. Excess	No. OF SAMPLES BELOW STANDARD.					
		UNSATISFACTORY WARNED.			BAD PROSECUTED.		
		Excess Bac.	Excess Bac. B. coli.	Excess and B. coli.	Excess Bac.	Excess B. coli.	Excess Bac. and B. coli.
403	305	64	17	8	6	—	3

Bacteriological examination of Fresh Cream:

One sample of fresh cream taken for bacteriological examination contained an excess number of micro-organisms. The seller was warned.

Bacteriological examination of Water Supplies at Dairies:

During the year five samples of water were taken at dairies on farms where the water supplies were suspected to be unsatisfactory. On bacteriological examination one was satisfactory and four proved to be unsatisfactory. The owners of the unsatisfactory samples were advised and the water supplies were improved.

2. **Chemical Analysis:****Milk:**

Number of samples taken	471
Number satisfactory	163
Number unsatisfactory:—	
Deficient in Fat and Solids not fat	23
Deficient in Milk Fat	6
Deficient in Milk Solids not Fat	257
Number bad:—	
Deficient in Milk Fat and Solids not Fat	7
Deficient in Milk Fat	3
Deficient in Milk Solids not Fat	Nil
Adulterated (added water)	12
Prosecutions	22

3. Disc Sediment tests:

Number of samples taken	488
Number satisfactory	284
Unsatisfactory: Warnings issued	173
Bad:—	
Severe warnings issued	24
Final warnings issued	4
Prosecutions	3

4. Phosphate tests for pasteurised milk:—

Number of samples tested	829
Number satisfactorily pasteurized	793
Number slightly under pasteurized	13
Number grossly under pasteurized	23

The phosphatase tests and presumptive test are carried out daily on milk samples taken at all the dairies where milk is pasteurized and every effort is made to ensure that the milk is adequately pasteurized.

Chemical Analysis of Cream:

Three samples of fresh cream on analysis were found to be up to the legal standard. One sample of cream was tested for acidity.

(b) *Breed Smear counts:* The milk samples examined microscopically by the Breed Smear method are classified as follows according to the bacterial counts made.

Very good	10,168
Good	2,258
Fair	3,587
Unsatisfactory	3,976
TOTAL	19,989

(c) *Mastitis examination:* Milk samples taken from individual quarters of the udders of 555 cows in dairy herds were microscopically examined for mastitis and positive results were followed up by clinical examinations of the udders of these cows. Treatment was undertaken where this was advisable. Cows with induration of the udder and those which after treatment showed no response were slaughtered. Dairy farmers who are willing to co-operate and are interested in the eradication of mastitis from their dairy herds are given every assistance in this respect.

(d) *Presumptive coliform tests:* 1,993 Samples of pasteurized milk were tested for the presence of coliform organisms in one millilitre. 1,052 Samples were positive and 941 negative.

SURPLUS MILK.

Although, as previously stated in this report, there were times of shortage of milk in the City during which milk had to be imported from sources not licensed by the Council, there was a period of surplus and means had to be found for the disposal of this surplus milk. In order to assist the trade an experiment was conducted in co-operation with the Pretoria Milk Distributors Association at the Bantule Location where this surplus milk was sold mainly in the form of acidophilised skimmed milk. This scheme was a success while the milk was available. Details are given elsewhere in this report.

MILK DELIVERIES—SHORTAGE OF MILK BOTTLES.

Due to the shortage of milk bottles most dairies in the City discontinued the bottle-for-bottle system of milk delivery early during the war. Since April, 1945, when it was thought that the bottle position had improved sufficiently an attempt was made to revert again to the bottle-for-bottle system. However, most dairies in Pretoria continued to decant milk into customer's containers. Owing mainly to the legislation to be promulgated in connection with the compulsory pasteurization of milk and the fact that this would effect the type of bottle to be used for milk deliveries, the Department at the request of the dairy trade did not enforce the re-introduction of the bottle-for-bottle system. At the beginning of the year a critical shortage of milk bottles was again experienced, a shortage which was worse than at any time during the war and all dairies in Pretoria were again compelled to cease leaving milk bottles with their customers. Up to April, 1948, the milk trade was generally unable to obtain sufficient milk bottles to meet its requirements. Later the bottle position improved considerably and the milk trade was again urged to revert to the bottle-for-bottle system. The public was advised that they could and should insist upon this. The result of this is that the bottle-for-bottle system has been completely re-instated.

COMPULSORY PASTEURIZATION OF MILK IN PRETORIA.

In June, 1946, the City Council resolved that the compulsory pasteurization of milk would be enforced from the beginning of 1948. As it was not possible to complete all the arrangements by the end of 1947 and as it was felt that a reasonable period should be allowed to enable the trade to acquire the necessary plant and become equipped for the distribution of pasteurized milk, the date on which the scheme is to come into operation has been postponed till January, 1949, or as soon thereafter as possible. All this is of course subject to the approval of the Provincial Council.

During the year further satisfactory progress was made in regard to the scheme for the introduction of compulsory pasteurization. The original scheme in connection with which it was intended to spend £65,000 in order to finance the expenditure involved in the establishment of a Municipal pasteurization plant was abandoned, because after several meetings held with the distributors in the milk trade in Pretoria, it was agreed that they would make their own arrangements with existing plants, with the assistance of the City Council.

By August, 1947, amicable arrangements had been made with all distributors in regard to pasteurization. All distributors and producer-distributors undertook to pasteurize their own supplies or to make arrangements themselves for their supplies to be pasteurized whereas sixteen dairymen had left it to the City Council to make arrangements for them at existing plants.

In March, 1948, the campaign against pasteurization was again revived, the main argument brought forward in the representations made to the City Council by the Pretoria Milk Distributors Association being that pasteurization would incur additional expense to those dairymen who did not already pasteurize. It is apparent that the objections of the smaller dairymen who do not pasteurize milk are lodged mainly from a financial point of view. A request was made that the Council should make representations to the Price Controller for the prices of milk to be adjusted to cover the additional cost of pasteurization but this request was not acceded to, although it was felt that from a health point of view pasteurized milk warranted an estimated extra charge of ½d. per pint, and further, that if the Price Controller was satisfied that the cost of pasteurization warranted the extra charge, the Association's claim to such extra charge would be supported. It must however, be borne in mind that when the prices of milk were fixed by the Government the cost of pasteurization was taken into consideration and the Government controlled prices for milk in the Pretoria area were based on the costs of pasteurised milk and were calculated to cover the extra cost of pasteurization which was estimated to be 1.64d. per gallon, although no differentiation is made between the price of pasteurized milk and milk which is not pasteurized. At the end of June the question of the costs of pasteurization was still under discussion by the Council. However, it is hoped that in the near future this matter will be amicably settled.

The amendments of the City Council's Dairy By-laws which will provide for the compulsory pasteurization of milk in Pretoria have been drafted. The draft amendments which were fully discussed by the Dairy Trade Consultative Committee and altered to suit the requirements of the milk trade will be submitted to the City Council early in the ensuing year and will, it is hoped be promulgated before the end of 1948.

Animal Pounds and Dipping Tanks:

Details of the animals impounded, animals dipped and fees collected at the three animal pounds and two cattle dipping tanks controlled by the Department are as follows:—

	Number of Animals Impounded.	Pound Fees and Sales.		Dipping Fees.		Number of Animals Dipped.
		£	s. d.	£	s. d.	
Hatfield Pound and Hatfield Dipping tank	155	85	8 2	8	1 3	806
West End Pound	711	224	3 6	—	—	—
Mayville Pound and Mayville Dipping tank	800	129	1 8	3	3 6	212
TOTAL	<u>1,666</u>	<u>438</u>	<u>13 4</u>	<u>11</u>	<u>4 9</u>	<u>1,018</u>

RECORD OF WORK OF HEALTH INSPECTORS.

We have not been able to fill all the vacancies on the inspectorial staff. Nevertheless the good standard of work done by the staff in previous years has been maintained.

The following are the details of the work covered by the Inspectors during the year under review:—

Total inspections made	55,665
Nuisances dealt with	13,373
Nuisances abated. (This includes unabated nuisances carried over from previous year)	12,257
Complaints dealt with	2,814
Licences approved	2,809
Licences refused	98
Samples of water taken	169
Samples of foodstuffs taken	312
Visits of enquiry re infectious diseases	2,688

Nuisances detected and referred to other Departments:—

1. To the City Engineer	560
2. To the Manager, Native and Asiatic Administration Department	130
3. To the Licence Officer	83
4. To the Director of Parks	79
5. To the City Electrical Engineer	13
6. To the Traffic Officer	12
7. To the Firemaster	5

Prosecutions:

Prosecutions for contraventions of the Food, Drugs and Disinfectants Act and the Municipal By-laws were undertaken. 149 Of the accused were found guilty. Fines amounting to £537. 15s. 0d. were imposed.

PEST CONTROL.

Anti-Mosquito Control:

The usual anti-mosquito measures of spraying, and draining of swampy areas, dams, etc., and the investigation of complaints were continued throughout the year. Due to intermittent rainfall, mosquito complaints were numerous. The source of breeding in the majority of complaints was found to be on private premises in the vicinity, due to negligence of the occupiers. Frequent representations were made to the public through the press for the elimination of the usual mosquito breeding places from private premises.

Two species of Anophelene mosquitos were discovered in Pretoria during the season. They were A. Mautitianus and A. Squamosus. No cases of locally contracted malaria were notified.

Rodent Eradication:

The destruction of rodents on Municipal premises by means of trapping, poison baits and gassing continues.

The absence of suitable Rat Catching firms in the city renders the elimination of rodents on private and business premises difficult.

As reported previously, it is considered that an increase of the rodent eradication staff, whose services could be made available to owners or occupiers of private and business premises, on payment of a reasonable fee to cover cost of labour and materials, would make for a greater reduction of rodents in the city.

Some dead rodents, where the cause of death was doubtful and suspicious were forwarded to the South African Institute for Medical Research for post mortem examination. Results in all instances proved negative for plague.

Rodent-Free Certificates:

During the year under review 20 rodent free certificates were issued to owners of buildings prior to demolishing.

General:

Complaints in connection with ants, cockroaches and ticks were investigated and advice given. 5% D.D.T. in Kerosene solution is still considered the most successful and economical method of eradicating cockroaches from premises.

An experiment of treating thatching material (straw) with D.D.T. Emulsion was carried out. Tests made 6 months later proved that the treated thatch was still lethal to bugs, cockroaches and mosquitos.

T.I.F.A. MACHINE:

During the month of April representatives of the Lister Todd Engineering Corporation Ltd., demonstrated one of their products—the Todd Insecticidal Fog Applicator (T.I.F.A.). As this machine was only in Pretoria for a very short period, limited experiments were carried out to ascertain to what uses such a machine could be put by a Municipal Health Department.

The premises treated, solutions used and results obtained are as follows:—

Stables:

Three stables were treated with 4 gallons of 5% D.D.T. in Kerosene Solution. The time taken for the application was approximately $\frac{1}{2}$ an hour. In two instances where horses were in the stables while the fog was being applied it was found that the horses coughed badly while in the fog. The results on flies were very satisfactory.

Refuse Dump:

Four gallons of 5% D.D.T. in Kerosene were used in applying fog to a refuse dump but due to unfavourable weather (too strong wind) the experiment was not a satisfactory one.

Sewers:

Two gallons of Gammexane in kerosene with a small quantity of Citronella Oil were used in the treatment of a cockroach infested sewer. The fog was applied down a manhole cover in the street. Results appeared effective in the immediate vicinity of the point of application for a period of approximately 2 months. No noticeable effect was noticed at other manholes nearest the point of application.

Compost Pits:

The Municipal compost pits were treated with 4 gallons of 5% D.D.T. in Kerosene solution. The immediate results were satisfactory and remained so for approximately three weeks, when the compost was removed for use by the Parks Department.

Native Room:

A native room, W.C. and change room infested with bugs and cockroaches was treated with fog from 5% D.D.T. in Kerosene solution. Immediate results were satisfactory. Re-inspection approximately two months after revealed that no re-infestation had taken place.

Theatre:

A theatre of approximately 300,000 cu. ft. was treated with fog from a 5% D.D.T. in Kerosene solution. Seven gallons of solution were used, the period of operation being approximately 14 minutes. The fog was applied at only one of the groundfloor entrances. To test the residual effect of the fog, glass slides were placed vertically and horizontally in various portions of the theatre. After the operation a deposit was found on all slides, some being very slight and hardly visible to the naked eye. After a period of two months slides with the least deposit on were found to be lethal to mosquitos and bugs.

Rietvlei:

At the beginning of the summer season all windows in the Municipal Stables at Rietvlei dam were gauzed. A weekly spraying of the internal walls with 5% D.D.T. in kerosene solution was carried out throughout the horse sickness season.

It was interesting to note that not a single case of horse sickness occurred among the animals housed in the treated stables. Incidence in previous years were as follows:—

1945	..	..	..	..	..	..	..	..	7
1946	..	..	..	..	..	..	..	..	5
1947	..	..	..	..	..	..	..	..	2

Conclusion:

The above experiments were carried out under limited conditions and are in no way conclusive; but it would appear that such a machine could be utilized very effectively in a Municipal Health Department for the treatment of stables, compounds, dwellings, etc. Its operation is quick and economical. The machine measures approximately 4' x 3' x 3' high, which means that it can be mounted on a two wheel trailer for towing to sites of operation.

FOODS (SUPERVISION OF).

Assisted by the District Inspectors, this section of the Department carried out regular inspections of all food factories, stores and premises where foodstuffs are prepared, stored and kept for sale. These include the following licensed premises:—

	City.	Locations.	Total.
Bakers and Confectioners	27	3	30
Butchers	76	13	89
Restaurants	120	14	134
Hotels	17	—	17
Tea Rooms	57	18	75
Native Eating Rooms	6	—	6
Food Purveyors	208	146	354
Fishmongers	11	—	11
Fruiters	270	96	366
Hawkers and Pedlars	86	165	251
Mineral Water Factories	6	—	6
Gram Millers	3	—	3
Asiatic Tea Rooms	—	57	57
Poulterers	21	—	21
	908	512	1,420

B.—Daily inspections of all produce on the early morning Municipal Market were carried out and the following quantities of vegetables and fruit were condemned:—

Baskets	1
Trays	7,446
Bags	1,143
Sugar Bags	337
Pockets	9,839
Punnets	1,649
Crates	589
Boxes	7,544
TOTAL	28,548

This is 11,917 containers more than the previous year. In addition 814 watermelons and pumpkins 25 snoek and 193 dozen eggs were also seized and condemned.

INSPECTION OF LIVE AND DRESSED POULTRY AND GAME ON THE PRODUCE MARKET.

1. Live Poultry.

Number examined	117,653
Number condemned	722
Percentage condemned	00·62

2. Dressed Poultry.

Number examined	7,946
Number condemned	242
Percentage condemned	3·04

3. Game.

Buck:—

Number examined	584
Number condemned	20
Percentage condemned	3·42

Guinea Fowl, Pheasant's, etc.—

Number examined	475
Number condemned	28
Percentage condemned	5·89

4. Guinea Pigs and Rabbits.

Number examined	69
Number condemned	6
Percentage condemned	8·69

In the enforcement of the Food, Drugs and Disinfectants Act and other Legislation appertaining to foods for human consumption, the following unsound foods were seized or surrendered for condemnation.

1. Tins, bottles and Cartons Foodstuffs	40,770
2. Bags Raisins	3½
3. Fish	4,212 lbs.
4. Dressed Poultry	267 lbs.
5. Confectionery	1,452 lbs.
6. Milk Powder	1,950 lbs.
7. Bread	68 loaves.

These figures show a considerable increase in comparison with last years figures.

The following samples were taken for Bacteriological and Chemical examination, which include routine samples of water taken from the City's Water Supply (Rietvlei Dam) and the Municipal Swimming baths, and from the Water Supply in the City's suburbs.

Chemical:

Number of Samples taken.	Nature of Articles.	Satisfactory.	Unsatis- factory.
13	Boerwors	11	2
13	Coffee	13	—
5	Milk	—	5
84	Ice Cream	69	15
2	Cream	2	—
16	Minced meat	15	1
1	Sausages	1	—
17	Dripping	17	—
3	Lard	2	1
8	Mealie Meal	8	—
4	Boer Meal	4	—
8	Mineral Waters	8	—
4	Sugar	4	—
2	Sago	2	—
1	Tapioca	1	—
2	White Pepper	2	—
2	Apples	1	1
2	Turmeric	2	—
1	Cinnamon	1	—
3	Water	3	—
191		166	25

Bacterial:

Number of Samples taken.	Nature of Articles.	Satisfactory.	Unsatis- factory.
1	Mineral Water	1	—
124	Ice Cream	84	40
125		85	40

Number of Samples taken.	Nature of Articles.	Satisfactory.	Satisfactory if chlorinated.	Unsatis- factory.
169	Water	125	11	33

The samples of water were taken from the town supplies, springs, swimming baths and paddling pools.

These figures show a considerable increase in the number of samples taken as compared with the previous year.

LICENSED PREMISES:

	City.	Location.
Bakers and Confectioners	27	3
Butchers	76	13
Restaurants	120	14
Hotels	17	—
Tea Rooms	57	18
Native Eating Houses	6	6
Food Purveyors	208	146
Fishmongers	11	—
Fruiterers	270	96
Bioscope Tea Rooms	1	—
Hawkers and Pedlars	86	165
Mineral Water Factories	6	1
Grain Millers	3	—
Boarding and Lodging Houses	388	—
Launderers	7	12
Theatres	11	3
Public Halls	8	1
Asiatic Tea Rooms	—	57
Billiard Rooms	3	4
Poulterers	21	—
Second-hand Dealers	22	6

WATER SUPPLIES.

The demand for water has grown in accordance with the development of Pretoria and the following figures indicate the increased consumption:—

1929-30	4.21	Million gallons daily.
1934-35	7.4	" "
1939-40	8.78	" "
1945-46	13.8	" "
1946-47	14.2	" "
1947-48	14.52	" "

The Council has five sources of supply; three direct from dolomitic springs from which a quantity of 8½ million gallons per day is drawn. The balance is made up of water drawn from the dam on the farm Rietvlei and from the Rand Water Board. Up to the 31st December, last 2,287.368 million gallons have been used, this water comes direct from the Vaal River and is treated by normal sedimentation and filtration methods with subsequent chlorination. The water is pumped to Signal Hill Reservoir, Germiston. From the time the water enters the pumps to the time it reaches the consumer, it is not exposed to the atmosphere.

SANITARY AND RUBBISH SERVICES.

During the course of the year under review the following quantities of refuse, etc., have been removed:—

Bin Services	187,436	cub. yds.
Special Services	15,330	cub. yds.
Coupon Services	3,554	cub. yds.
Sanitary Pail Services	3,256,500	gallons.
Vacuum Tank Services	6,020,400	gallons.

REPORT OF SLUM CLEARANCE UNDERTAKEN BY THE PRETORIA HEALTH DEPARTMENT FOR THE YEAR ENDING 30th JUNE, 1948.

Although Pretoria has never been considered a City with a large percentage of slums, the acute shortage of housing accommodation, which is generally accepted as a natural outcome and a legacy of the last war, resulted in a very marked increase of slum conditions generally, over conditions prevailing during the periods immediately preceding the war. The problem has been further aggravated by the fact that the rate at which the population of the City has increased, has been proportionately far greater than the rate at which new dwellings have been constructed.

The result has been an increase in the number of overcrowded dwellings, resulting in a deterioration of conditions within these dwellings. In addition, there has been an increase in the number of outbuildings, disused stables, storerooms, etc., which have either been illegally converted into unsatisfactory dwellings. Some are even being occupied without any alterations.

This has compelled the Department to consider the extension of a slum elimination and rehousing programme, which, with an eye on the ever present problem of inadequate housing accommodation, resulted in a form of slum clearance, without recourse to a Slums Court, but in close co-operation with the Council's European Sub-Economic Housing construction project, which was continued unabated and very progressively during the year. Under this scheme no fewer than 296 families, comprising 1,312 persons were accommodated in Sub-Economic Houses, purely as part of a slum demolition scheme, where the occupants were being rehoused.

To proceed as rapidly as possible in reducing the number of such cases of unsatisfactory accommodation within the City, the Council embarked upon an experimental programme whereby military bungalows, declared surplus by the Department of Defence, were purchased by the Council, and converted into two, three or four roomed "flats", with communal bathing, washing and W.C. facilities, but separate kitchen and wash-up sinks under running water. In this way no fewer than 73 families, comprising 315 persons, have been suitably accommodated.

The average total capital cost of each flat was about £275, and rents payable to the Council range from £3. 17s. 6d. to £5. 10s. 0d., per month, inclusive of light and water, which are supplied free. This is an economic scheme, and has enabled the Department to accommodate families somewhat above the sub-economic income group.

This experiment of providing communal facilities and close grouping of "flats" was at first the subject of much adverse criticism but its practical application has met with fair success. Complaints and difficulties have been of a very minor nature. In all cases where families have been rehoused due to bad living conditions, re-occupation of such premises has been prohibited. Where the overcrowding has been in reasonably satisfactory premises we have in most instances been successful in preventing a recurrence.

In this way no less than 25 undeclared slum dwellings were demolished by mutual agreement with the owners, and in collaboration with the Director of Housing and Controller of Letting.

Three other dwellings, still considered satisfactory from a health point of view, were demolished to make way for the construction of three separate blocks of flats.

Three dwellings which had previously been declared slums were also demolished. One slums declaration was rescinded.

In spite of what has been accomplished there are still a large number of unsatisfactory outbuildings, garages, stables, etc., which are occupied as dwellings.

The greatest slum problem of the City, however is in respect of its Non-European population. Extensions to the Atteridgeville Location, has greatly assisted in easing the native housing problem, but conditions in the Native Locations at Bantule and Marabastad continue to deteriorate.

The conditions under which the Coloured and Asiatic communities are living, are most serious slum problems and present a threat to the health of the City as a whole, and some definite scheme must be undertaken to eradicate these conditions.

The dangers connected with these unhealthy areas have been emphasized year after year.

It is of course realised that no matter what our intentions may be, whilst there is an acute shortage of housing accommodation and an insufficiency of building materials and manpower to construct the number of houses required to meet present-day demands, a slum problem will exist, but nevertheless no stone should be left unturned to provide as many houses as possible for all sections of the community, irrespective of whether there is the responsibility of the Municipality or the Central Government.

A statistical record of certain of the work undertaken by this section during the past year is appended hereunder.

REPORT OF WORK UNDERTAKEN BY THE HEALTH DEPARTMENT FOR THE YEAR ENDING 31st DECEMBER, 1946.

Although the year 1946 was marked by a large percentage of slum dwellings being demolished, it was also a year in which a large number of new dwellings were erected. The work of the Health Department during the year was largely directed towards the improvement of the existing slum areas, and the construction of new dwellings to replace those which were demolished.

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SEWAGE WORKS REPORT, 1947-48.

Table A gives the following particulars:—

- (a) Daily average sewage flow.
- (b) Screenings removed from 1 inch bar screens—disposed of by burial and incineration.
- (c) Grit removed from grit channels, mechanical detritor, screen chambers, sumps and meter channels—disposed of by dumping.
- (d) Stream water measured over the Daspoort Weir, consisting of the Aapies Stream, Steenhoven and Skinner Spruits, plus filter bed effluent.
- (e) Ratio of dilution of filter bed effluent to stream water.
- (f) Rainfall as measured at the Sewage Works.

Sewage Flow:

An increase of 11 per cent. is recorded in the daily average flow figure, compared with that for the previous year.

As a result of the increased flow, the ration of dilution of effluent to stream water dropped to 1 : 0.77.

Sewage Purification:

In the annual report for 1945-46, a full description was give of the new units in which the following purification processes were to be investigated:—

- (1) double filtration through 12 feet deep filters, and
- (2) high rate filtration through a shallow filter with recirculation of purified effluent.

The investigations on both these processes are now well under way, and a paper presented to the Institute of Sewage Purification (South African branch), on the first year's operation of the double filtration process is appended.

Humus Removal:

The removal of humus from filter bed effluent, by settlement in humus tanks, greatly improves the quality of the effluent discharged. In September, 1947, the humus tank serving units 7 and 8 was put into operation, and as a result, humus removal is now being done throughout the Works on all the effluent. This has brought about a great improvement in the standard of purity of the final effluent, and a corresponding change in stream conditions.

Sludge Digestion:

Since the beginning of April, 1948, all the night soil from the Hercules Municipality (total population approximately 40,000) has been treated at the Works. This represents a considerable increase in load, particularly on the sludge digestion plant.

While repairs were being done to the mechanical equipment of the new digestors, special measures were adopted to maintain the digestion process.

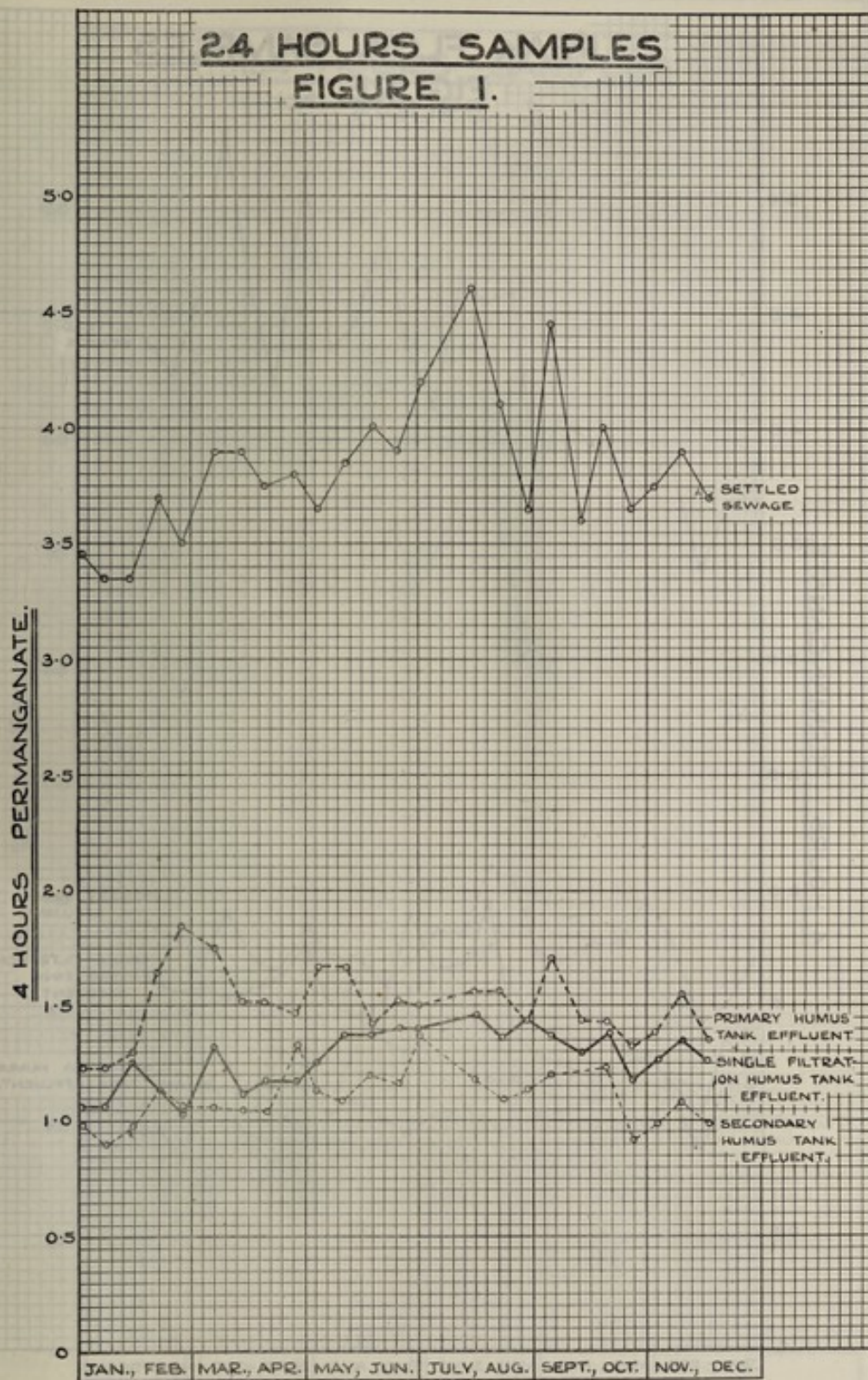
During the year, 3,520 cubic yards of digested sludge were removed from the drying beds.

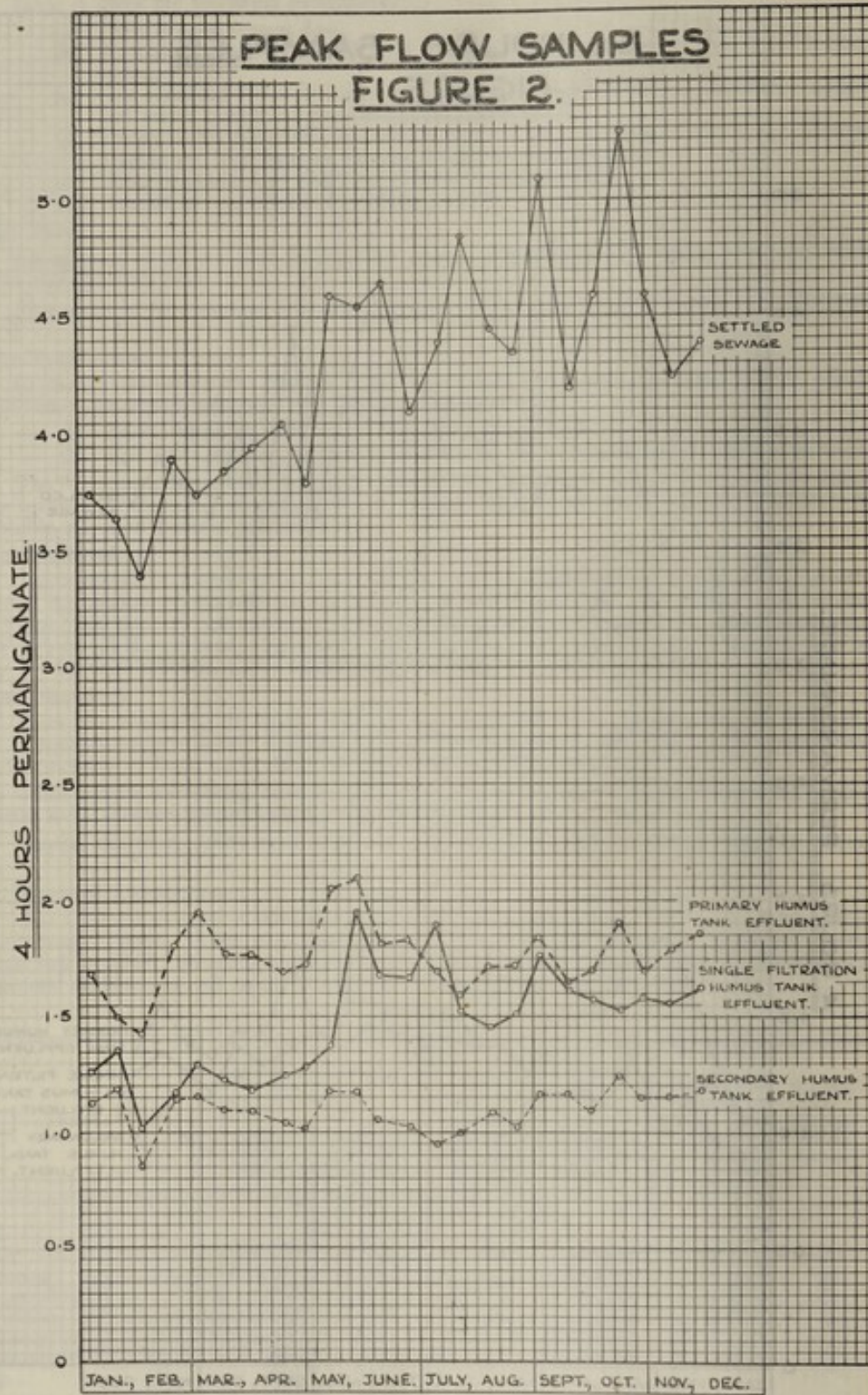
New Chemical Laboratory:

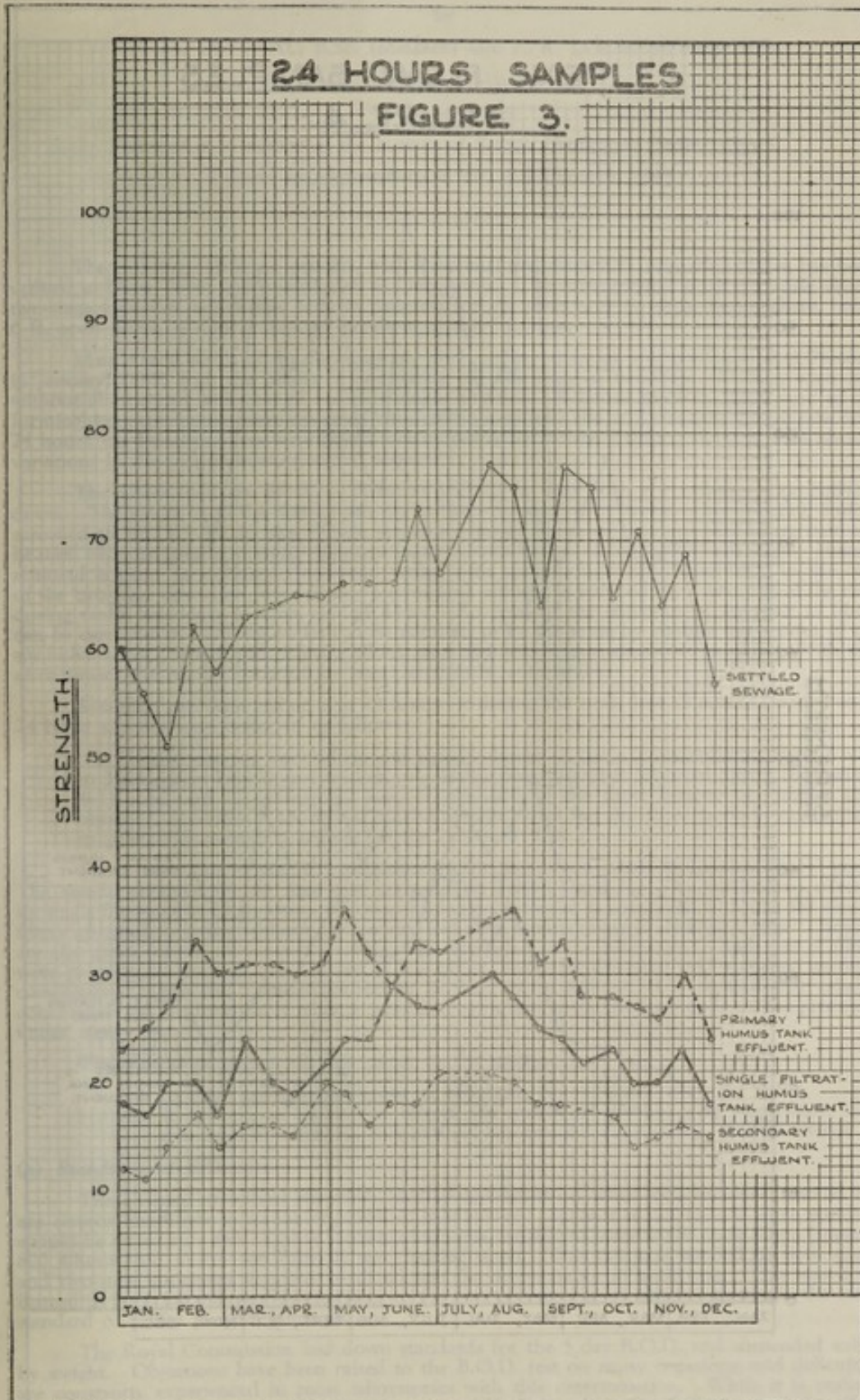
The Council accepted a tender of £12,272 for the erection of a new chemical laboratory at the Sewage Works. Work was commenced in May, 1948, and should be completed during the first half of 1949. Much-needed laboratory facilities will thus be provided for bio-chemical and general analyses, as well as for the testing of road construction materials.

TABLE A.

Month.	Sewage Flow.	Screenings.	Grit.	Daspoort Weir.	Ratio of Dilution Effluent to Stream Water.	Rainfall at Sewage Works Inches.
	Daily Average Gallons.	Cubic Feet per Million Gallons.	Cubic Feet per Million Gallons.	Daily Average Gallons.		
1947—						
July	5,936,000	18.5	3.6	7,445,000	1 : 0.25	0.03
August	6,074,000	18.4	3.6	7,869,000	1 : 0.30	Nil
September	6,119,000	18.7	3.3	6,935,000	1 : 0.13	0.30
October	6,283,000	17.9	4.0	7,656,000	1 : 0.22	1.49
November	6,618,000	17.3	3.7	13,479,000	1 : 1.04	4.67
December	6,795,000	15.7	3.3	16,102,000	1 : 1.37	5.17
1948—						
January	7,200,000	15.4	3.9	13,408,000	1 : 0.86	4.74
February	6,854,000	16.4	3.7	11,939,000	1 : 0.74	2.25
March	7,577,000	14.5	3.1	22,059,000	1 : 1.91	7.39
April	6,927,000	18.8	2.9	12,517,000	1 : 0.81	1.37
May	6,313,000	21.4	3.1	11,453,000	1 : 0.81	0.35
June	6,340,000	22.1	3.1	9,022,000	1 : 0.42	Nil
Year 1947-48	6,587,000	17.9	3.4	11,657,000	1 : 0.77	27.76

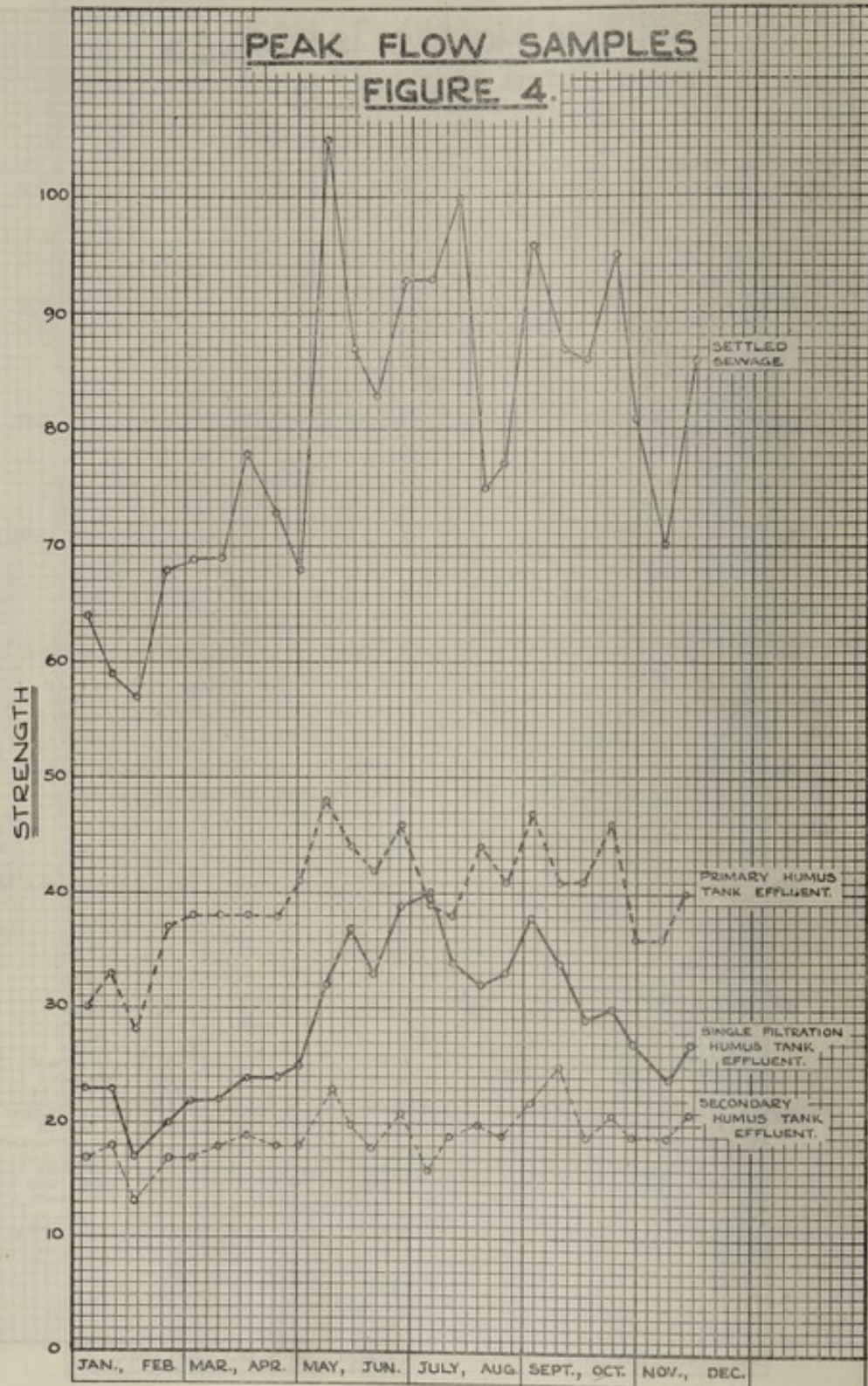






PEAK FLOW SAMPLES

FIGURE 4.



STANDARDS FOR EFFLUENTS AND VARIOUS FILTER PERFORMANCES".

by

H. M. DE VAAL, B.Sc. (MEMBER) AND P. R. LOEWENSTEIN, B.Sc.

(ENG.) (ASSOC. MEMBER).

Presented at a meeting of the Institute of Sewage Purification (South African Branch) in Johannesburg on the 12th February, 1948.

The two-stage filtration process, with deep enclosed artificially ventilated filters, has been utilised at Cape Town and investigated at Germiston. The experimental work on single versus two-stage filtration, which has been in progress for six years at Minworth, Birmingham, using 6 ft. open filters, is also known to members of this Institute.

Mainly as a result of the Birmingham work, an investigation was commenced at Pretoria in January, 1947, with the object of comparing the efficiency of two-stage filtration, with and without alternation, with that of ordinary single filtration. Whereas the 6 ft. filters used in the Birmingham experiments were operated with continuous feed and at a constant dosage rate over 24 hours, the Pretoria filters were dosed intermittently by means of dosing siphons, with normal variations in the rate of flow of settled sewage.

The filters used are 85 ft. in diameter and 12 ft. deep with a ventilating zone halfway down. The media in all the filters from top to bottom, consists of broken stone (norite), double screened to be $1\frac{1}{2}$ "-2 $\frac{1}{4}$ " in size. There are two pairs of filters so arranged that either pair can be used either in parallel as single filters, or in series with humus removal after each stage. Humus removal is done in ordinary Dortmund tanks, with continuous humus draw-off. In the case of the two-stage operation, the primary humus tank effluent is pumped back into one of the twin dosing tanks belonging to each pair of filters. Reversal of the sequence of any pair of filters can be carried out. Dosing cycles can be adjusted to be the same by altering the orifices of the sprinkler arms. Single and primary filters were fed with the same settled sewage. With this arrangement the results obtained are considered to be comparable.

Sampling was done either over 24 hours or during the peak flow (9 a.m.-12 noon) only. 24 Hour samples were collected as follows:—

Hourly samples were taken, and equal volumes of the samples collected from 8 a.m. to 3 p.m. were kept in one bucket. A similar procedure was followed during the periods 4-11 p.m. and 12 midnight-7 a.m. From each of the three batches of samples thus obtained, volumes proportional to the sewage flows for the three periods were mixed to give a representative sample for the 24 hours' flow.

The programme as planned provisionally for this investigation will cover several years. The results obtained for the first year are given in Tables I and II. The purification effected by single filtration in 12 ft. filters, followed by humus removal, is compared with that for similar filters operated in series, without alternation, and with humus removal after each stage. Results are also given for the effluents filtered through filterpaper in the laboratory. Both sets of filters were given equal loadings as indicated in the tables, and were operated under normal working conditions. While the comparative results to date are of interest, it is realised that reliable conclusions can be drawn only when a great deal of further work has been done on the processes under test.

The objects of presenting this paper to the meeting are—

- (a) to raise again the question of standards for effluents, and
- (b) to submit, as an interim report, the results of the first year's operation with two-stage filtration, as this process has aroused considerable general interest.

(a) Standards of Effluents:

The absence of official standards, and disagreement on what such standards should be, are serious handicaps in an investigation of this nature. Since it is not known what standard should be aimed at, a rate of filter loading which was considered suitable for these filters (approx. 800 4-hour load units—see Table I) was decided upon. This rate was applied to both single and two-stage processes in order to determine the performance in each case. This was done instead of applying different dosage rates to the two processes in an attempt to obtain the same standard of purity in both effluents.

The Royal Commission laid down standards for the 5 day B.O.D. and suspended solids by weight. Objections have been raised to the B.O.D. test on many occasions, and difficulties are constantly experienced in most laboratories with this determination. While it is realised that the B.O.D. supplies useful information regarding the quality of an effluent, and the effect it will have on a stream, its general application to raw and settled sewages as well as to effluents, is not considered satisfactory.

In the absence of a single determination which can be utilised as the ideal test in sewage purification, the formula put forward by McGowan for the strength of a sewage, viz. "Strength" = (Ammoniacal + Organic Nitrogen) $\times$ 4.5 + (4 Hours Permanganate) $\times$ 10.4 is considered more useful than any other single figure. Taking into account the nature of sewage, and the changes which biological filtration brings about in ammoniacal and albumenoid nitrogen figures, a combination of these nitrogen figures with the 4 hours permanganate figure appears to be a logical way of measuring sewage strength. With reference to standards, the equivalent of a B.O.D. figure of 2.0 in terms of "strength", seems, from the tables, to be approximately 20.

As regards the stability of an oxidised effluent, the methylene blue test, because of its extreme simplicity and in spite of its duration, serves a most useful purpose. However, where analytical determinations can be done, the "oxidation present" figure as suggested by Meyling, reflects the stability of an effluent more satisfactorily because of its quantitative significance.

Referring to the "oxidation present" results in Tables I and II, it should be noted that the theoretical factor of 2.85 was substituted for the approximate factor 3.0 in Meyling's formula: "Oxidation present" = 3 (Nitrite N + Nitrate N) - 4 Hours Permanganate. The "oxidation present" as calculated in Tables I and II with the factor 2.85, happens to correspond almost exactly with the methylene blue stability for these effluents, i.e. a positive "oxidation present" gave 100% stability and a negative "oxidation present" less than 100% stability to methylene blue. Although the methylene blue figures are not tabulated, this agreement is of interest.

Therefore, in the absence of one ideal test which satisfies all requirements, the "strength" and "oxidation present" figures are worthy of serious consideration for general use in expressing sewage purification results in a simplified form. If official standards are to be laid down, a standard in terms of "strength" is suggested as more satisfactory than any other.

Suspended Solids:

The evidence available seems to show that with normal filter loadings, no humus tank effluent will at all times comply with the Royal Commission standard of 3.0 parts per 100,000 by weight. Therefore sand filtration or its equivalent must be employed for compliance with this standard.

The Union Health Department has stipulated that sand filtration must be carried out on a filter effluent which is to be discharged into a river or stream. Sand filtration thus becomes a necessary operation, and the effect it might have on the distribution of the work between biological filters, humus tanks and sand or other filtration, will be discussed later.

(b) Results of Filter Operation:

Table I gives the comparative results for single and two-stage operation on 12 ft. filters for the year 1947. As the two-stage operation was done without alternation, the primary filtration may be regarded as single filtration at double the loadings given. The figures for each month are averages of fortnightly analyses.

Taken all round, the two-stage process produced a better effluent than single filtration. Comparing the average figures for May-August with those for the whole year, the deterioration in the winter performance of the two-stage process is not as marked as that of the single filtration. Although this does not come out too clearly in the tables, the graphs illustrate the point satisfactorily. Throughout the year, the two-stages process maintained a fairly consistent standard of purity in the secondary effluent. The single filtration on the other hand, while approaching two-stage performance during the summer months, showed a marked deterioration during May-August.

In the two-stage process, the function of the secondary filter is mainly that of nitrification.

Table II gives the results of the analysis of 24 hour samples compared with peak flow (9-12 a.m.) samples. The rate of loading during peak flow is calculated as if the peak flow were maintained for 24 hours. 6 Ft. filter performance, with settled sewage similar in nature to that treated by the 12 ft. filters, is given for comparison.

It has been shown from Table I that the purity of the effluents during the winter months, is appreciably below the average figures for the whole year. In the same way, Table II shows that the peak flow results are not as good as those obtained over 24 hours.

If adherence to an accepted standard of purity is necessary at all times, as it should be, these comparisons are very important. The analysis of peak flow samples is therefore in reality of much greater importance than that of the usual 24 hour samples. The peak flow results reflect the purification capacity of the plant under the worst operating conditions.

Distribution of Work:

Reference has been made to the fact that sand filtration of effluent has been stipulated by the Union Health Department in several cases. If sand filtration is compulsory, it affects the allocation of work to be done by biological filters, humus tanks, and sand or other filtration. As biological filters normally account for a very large portion of the capital expenditure, it would appear economical for these filters to be operated at high loadings, and for the humus tanks and sand or other filters to do the remaining work on the effluent.

The success of such a policy would depend on—

- (1) whether biological filters are capable of maintaining their efficiency indefinitely under relatively high loading without breaking down, and
- (2) whether sand or other filters can deal satisfactorily with an effluent containing suspended solids which are not oxidised to the usual degree.

As regards (1), it is possible that the choice of the correct size of filter media, together with the scouring effect of high loading rates, will prevent ultimate clogging and breakdown of the filters.

In respect of (2), slow sand filtration is the usual method of removing non-settleable suspended solids. Rapid sand filtration may be capable of dealing with suspended solids which are not well oxidised, if slow sand filtration cannot deal with such solids. Another possibility is that some form of mechanical filter (e.g. of so-called "micro-mesh", which is a metal cloth claimed to have been used for such work) may be able to do the job.

It is fully realised that these are very controversial points, but if progress is to be made, then investigation into such matters might show the way.

Future Plans:

It is hoped that further work will show the exact benefit that can be gained by two-stage filtration versus single filtration with 12 ft. open filters. The added alternative of operating a two-stage process with regular alternation in the order of the filters, presents further complications in planning such an investigation.

The experiments at Birmingham indicate that daily alternation in two-stage filtration, produces a 100% increase in efficiency over two-stage operation without alternation, which, according to their results, already doubles the efficiency of single filtration.

The work on hand for this year in Pretoria consists of determining whether daily alternation has any advantage over no alternation with two-stage filtration at approximately 300 gallons /cubic yards/day, or 1,200-1,300 4 hour load units.

Table I.

COMPARATIVE RESULTS FOR SINGLE AND TWO-STAGE OPERATION ON 12 FT. FILTERS AT PRETORIA, 1947.

RESULTS IN PARTS PER 100,000.		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	AVERAGES.			Year.
														Jan.- April.	May- Aug.	Sept.- Dec.	
DOSAGE: GALLS./CU. YD./DAY		219	239	217	231	221	225	220	223	228	225	223	227	226	222	225	224
LOADING (4 HOURS X DOSAGE)		745	865	847	874	828	868	970	866	925	860	853	825	833	883	866	861
LOADING ("STRENGTH" X DOSAGE) 100%		121	144	138	151	146	153	159	155	173	153	148	127	139	153	150	147
MEAN AIR TEMP. DURING SAMPLING "F."		74	76	70	67	56	51	53	58	67	66	73	74	72	55	70	66
SETTLED SEWAGE		3.40	3.60	3.90	3.80	3.75	3.95	4.40	3.90	4.05	3.85	3.85	3.70	3.70	4.00	3.85	3.80
4 HOURS	H.T.E.	1.15	1.10	1.25	1.15	1.30	1.40	1.45	1.40	1.35	1.30	1.30	1.25	1.15	1.40	1.30	1.30
	PRIMARY	1.25	1.70	1.60	1.50	1.70	1.45	1.55	1.50	1.50	1.40	1.45	1.35	1.55	1.55	1.40	1.50
	SECONDARY	0.95	1.10	1.05	1.20	1.10	1.20	1.30	1.10	1.20	1.10	1.05	1.00	1.10	1.20	1.10	1.15
PERMANGANATE	SINGLE	0.80	0.80	0.90	0.85	0.95	1.05	1.10	1.00	0.90	0.85	0.85	0.80	0.85	1.05	0.85	0.90
	PRIMARY	0.95	1.10	1.15	1.05	1.20	1.20	1.15	1.10	1.05	0.95	1.00	0.90	1.05	1.15	1.00	1.05
	SECONDARY	0.75	0.90	0.90	0.90	0.95	1.00	1.00	0.90	0.85	0.80	0.85	0.75	0.85	0.95	0.80	0.85
SETTLED SEWAGE		56	60	64	65	66	70	72	70	76	68	67	57	61	70	67	66
"STRENGTH"	H.T.E.	18	19	22	21	24	28	29	27	23	22	21	18	20	27	21	23
	PRIMARY	25	32	31	30	34	31	34	33	31	27	28	27	30	33	28	30
	SECONDARY	12	16	16	17	18	18	21	19	18	16	15	15	15	19	16	17
(McGOWAN)	SINGLE	15	15	18	17	20	22	24	22	19	15	16	15	16	22	16	18
	PRIMARY	20	25	26	24	27	26	28	27	25	21	21	19	24	27	22	24
	SECONDARY	11	13	14	14	16	15	17	16	14	12	13	12	13	16	13	14
SETTLED SEWAGE		19.0	23.5	20.5	23.0	27.5	25.0	27.0	28.0	27.5	27.0	23.5	24.5	21.5	27.0	25.5	24.5
5 DAY	H.T.E.	2.85	2.15	3.10	4.15	5.15	3.25	5.45	3.60	3.10	2.95	2.95	2.65	3.05	4.35	2.90	3.45
	PRIMARY	3.25	4.75	3.60	4.80	5.25	4.10	5.00	4.15	4.40	3.60	4.05	2.95	4.10	4.65	3.75	4.15
	SECONDARY	2.25	1.70	2.75	2.85	3.05	2.15	3.55	2.85	1.90	1.85	1.85	1.30	2.40	2.90	1.75	2.35
B.O.D.	SINGLE	0.85	0.90	1.00	0.70	1.60	1.15	1.30	1.05	0.85	0.70	0.90	0.80	0.85	1.30	0.80	1.00
	PRIMARY	1.10	1.45	1.35	1.40	3.15	2.80	1.15	1.25	1.05	0.80	1.00	0.90	1.35	2.10	0.95	1.45
	SECONDARY	0.55	0.65	0.55	0.60	1.25	0.60	0.90	0.75	0.55	0.65	0.65	0.55	0.60	0.90	0.60	0.70

NOTE.—H.T.E. = HUMUS TANK EFFLUENT. E.F. = EFFLUENT FILTERED IN LAB.

Table 1—(Contd.).
COMPARATIVE RESULTS FOR SINGLE AND TWO-STAGE OPERATION ON 12 FT. FILTERS AT PRETORIA, 1947—(Contd.).

RESULTS IN PARTS PER 100,000.												AVERAGES.			Year.													
Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.— April.	May— Aug.	Sept.— Dec.														
AMMONIACAL	3.90	4.25	4.25	5.00	5.25	5.50	5.00	5.75	6.75	5.50	5.25	3.50	4.35	5.40	5.25	5.00												
																	SETTLED SEWAGE											
																	H.T.E. SINGLE ..											
NITROGEN	1.30	1.45	1.75	1.65	2.00	2.75	2.65	2.35	1.90	1.75	1.50	1.00	1.55	2.45	1.55	1.85												
																	H.T.E. PRIMARY ..											
																	SECONDARY											
ALBUMENOID	0.55	0.75	0.70	0.75	0.80	0.75	0.80	0.80	0.80	0.70	0.70	0.60	0.70	0.80	0.70	0.75												
																	SETTLED SEWAGE											
																	H.T.E. SINGLE ..											
NITROGEN	0.19	0.22	0.22	0.19	0.23	0.28	0.29	0.31	0.22	0.25	0.22	0.18	0.21	0.28	0.22	0.24												
																	H.T.E. PRIMARY ..											
																	SECONDARY											
NITRITE NITROGEN ..	0.08	0.10	0.13	0.12	0.13	0.11	0.10	0.09	0.09	0.07	0.07	0.07	0.11	0.11	0.08	0.10												
																	SETTLED SEWAGE											
																	H.T.E. SINGLE ..											
NITRATE NITROGEN ..	0.95	0.75	0.90	1.05	0.95	1.10	1.05	1.40	1.40	2.15	2.00	0.95	9.90	1.10	1.65	1.20												
																	SETTLED SEWAGE											
																	H.T.E. SINGLE ..											
" OXIDATION PRESENT "	1.95	1.30	1.70	2.20	1.70	2.00	1.80	2.90	2.95	5.00	4.60	1.60	1.80	2.10	3.55	2.50												
																	SETTLED SEWAGE											
																	H.T.E. SINGLE ..											
(METHYLING)	2.20	1.65	2.05	2.55	2.05	2.35	2.15	3.30	3.35	5.45	5.00	2.05	2.10	2.45	3.95	2.85												
																	SETTLED SEWAGE											
																	H.T.E. SINGLE ..											
SUSPENDED SOLIDS ..	3.30	2.70	3.10	3.20	3.90	4.00	4.40	4.60	4.20	4.20	3.90	4.70	3.10	4.20	4.30	3.90												
																	SETTLED SEWAGE											
																	H.T.E. SINGLE ..											

NOTE.—H.T.E. = HUMUS TANK EFFLUENT. E.F. = EFFLUENT FILTERED IN LAB.

Table II.
COMPARATIVE RESULTS FOR PEAK FLOW (3 HOURS) AND 24 HOUR SAMPLING OF 12 FT. FILTERS: AND
24 HOUR SAMPLING OF 6 FT. FILTERS.

RESULTS IN PARTS PER 100,000.			JANUARY-APRIL.			MAY-AUGUST.			SEPTEMBER-DECEMBER.			AVERAGES FOR YEAR.		
			12' Filters.			12' Filters.			12' Filters.			12' Filters.		
			Peak Flow.	24 Hrs.	6' Filters. 24 Hrs.	Peak Flow.	24 Hrs.	6' Filters. 24 Hrs.	Peak Flow.	24 Hrs.	6' Filters. 24 Hrs.	Peak Flow.	24 Hrs.	6' Filters. 24 Hrs.
DOSEAGE: GALLS./CU. YD./DAY	..	..	300	226	127	308	222	128	317	225	129	308	224	128
LOADING (4 HOURS X DOSEAGE)	..	..	1,140	833	490	1,355	883	565	1,474	866	525	1,323	861	525
LOADING ("STRENGTH" X DOSEAGE) IN 100	..	..	201	139	80	868	153	87	271	150	85	248	147	84
4 HOURS	..	..	3-80	3-70	3-85	4-40	4-00	4-40	4-65	3-85	4-05	4-30	3-80	4-10
PERMANGANATE	..	..	0-85	0-85	0-85	1-10	1-05	1-10	1-05	0-85	1-05	1-00	0-90	1-00
	..	..	1-15	1-05	1-05	1-25	1-15	1-25	1-25	1-00	1-25	1-20	1-05	1-20
	..	..	0-85	0-85	0-85	0-90	0-95	0-90	0-95	0-80	0-90	0-90	0-85	0-90
"STRENGTH"	..	..	67	61	63	87	70	68	86	67	67	80	66	66
	..	..	22	20	14	34	27	20	30	21	17	29	23	17
(McGOWAN)	..	..	35	30	—	43	33	—	41	28	—	40	30	—
	..	..	17	15	—	19	19	—	21	16	—	19	17	—
	..	..	18	16	—	28	22	—	23	16	—	23	18	—
	..	..	29	24	—	36	27	—	34	22	—	33	24	—
	..	..	14	13	—	16	16	—	18	13	—	16	14	—
5 DAY	..	..	22-5	21-5	26-0	29-0	27-0	33-5	27-0	25-5	24-0	26-0	24-5	28-0
	..	..	3-75	3-05	1-60	5-05	4-35	2-90	4-35	2-92	1-65	4-40	3-45	2-05
B.O.D.	..	..	4-70	4-10	—	5-40	4-65	—	6-20	3-75	—	5-45	4-15	—
	..	..	2-90	2-40	—	2-85	2-90	—	3-45	1-75	—	3-05	2-35	—
	..	..	1-00	0-85	—	1-35	1-30	—	1-00	0-80	—	1-10	1-00	—
	..	..	1-65	1-35	—	1-35	2-10	—	1-25	0-95	—	1-40	1-45	—
	..	..	0-75	0-60	—	0-65	0-90	—	0-65	0-60	—	0-70	0-70	—

NOTE.—(1) H.T.E. = HUMUS TANK EFFLUENT. E.F. = EFFLUENT FILTERED IN LAB.
(2) For 6' filters, only September-December results are for humus tank effluent. January-August results are for effluent settled in laboratory for 1 hour.

Table II—(Contd.).
COMPARATIVE RESULTS FOR PEAK FLOW (3 HOURS) AND 24 HOUR SAMPLING OF 12 FT. FILTERS: AND
24 HOUR SAMPLING OF 6 FT. FILTERS—(Contd.).

RESULTS IN PARTS PER 100,000.			JANUARY-APRIL			MAY-AUGUST			SEPTEMBER-DECEMBER			AVERAGES FOR YEAR		
			12' Filters.			12' Filters.			12' Filters.			12' Filters.		
			Peak Flow.	24 Hrs.	6' Filters. 24 Hrs.	Peak Flow.	24 Hrs.	6' Filters. 24 Hrs.	Peak Flow.	24 Hrs.	6' Filters. 24 Hrs.	Peak Flow.	24 Hrs.	6' Filters. 24 Hrs.
AMMONIACAL	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
NITROGEN	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
ALBUMENOID	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
NITROGEN	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
NITRATE NITROGEN	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
NITRATE NITROGEN	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"OXIDATION PRESENT"	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(MEYLING)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
SUSPENDED SOLIDS	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..

NOTE.—(1) H.T.E. = HUMUS TANK EFFLUENT. E.F. = EFFLUENT FILTERED IN LAB.

(2) For 6' filters, only September-December results are for humus tank effluent. January-August results are for effluent settled in laboratory for 1 hour.

EUROPEAN HOUSING AND REHABILITATION.

The Council this year again continued with its schemes to provide housing accommodation for families falling in the lower income group and during the year altogether 414 additional sub-economic houses were constructed.

The economic schemes for the housing of people of a higher income were extended. In addition to the ordinary houses built for this purpose a number of army bungalows were converted into flats. These flats are situated on the old Showgrounds towards the West End of Pretoria. The rentals paid for these one, two and three roomed flats including light and water are as follows: £3. 17s. 6d., £4. 15s. 0d. and £5. 10s. 0d. respectively.

The conversion of these bungalows into flats was worrying in the beginning but eventually they turned out to be very comfortable and compact living quarters. The people who live there are very happy and there is never an empty flat. Similar accommodation elsewhere in Pretoria would cost at least twice as much.

The Council realises the absolute necessity for providing good housing accommodation for the inhabitants of the City and its present policy is to continue with the housing schemes. One of the difficulties is obtaining sufficient and suitable material. We are at the moment experiencing difficulty with this at Danville, where some houses are still without downpipes and gutters. We had great difficulty for a long time in obtaining doors and many houses had to stand vacant until doors could be supplied. There is still a grave housing shortage in Pretoria. Some families are paying as much as £6. 10s. 0d. for a garage which they use as living quarters, and it will take many years to solve the problem. The Controller of Letting has been most co-operative and he is helping us wherever possible, particularly in connection with person who are of the still higher income group and who could afford to pay £10 or £11 per month. The letting of such private dwellings is in the hands of the Controller.

There are two schemes in regard to rents in Pretoria.

In regard to the 325 sub-economic houses the rents are fixed on the following basis:—

A.	£2 18 6
E.	£3 4 6
F.	£3 9 6

The converted military bungalows now constitute 73 flats.

At Danville there is a differential renting system in operation. The householder pays according to his income and the size of his family. Rebates are being allowed for children of 16 years and under. The maximum rent payable here is £4. 17s. 6d. per house and the minimum 15s. 6d. (this includes water, light, rubbish removal services and rates). Part and parcel of the rehabilitation scheme is to beautify their own homes. They are also encouraged to establish gardens; shrubs, trees and grass for lawns are provided free of charge.

All our townships are growing into very nice residential areas with a large number of beautiful gardens at the Showgrounds where each bungalow has been converted into two flats. The occupants have fenced off the area immediately adjacent to their flats and have planted grass lawns and flowers. Quite a number have fair-sized vegetable patches.

It is of course impossible to avoid having a certain number of persons who will never fit into any scheme and who will always keep their houses dirty and untidy. The Department is endeavouring to inculcate a better spirit into these people. The usual economic problems are forever with us and conditions such as the breadwinner being ill and in hospital for treatment for a long period of time, unemployment, and the man who "just won't work" require very careful handling. Serious family disruptions can usually occur during such conditions. Occasionally there are families who neglect and illtreat their children. The housing staff try to improve the home conditions of such families, but unfortunately it sometimes ends in having to take the children into safe custody.

The person who is responsible for collecting the rent can consider what steps should be taken when a tenant fails to pay the rent. The Housing Manageress and her staff are able to find out a great deal about the difficulties of the family when they have to discuss arrear rents with the husband and wife and it is only by getting to know the inside workings and troubles of a household, that one is able to render maximum assistance from a social and economic point of view.

During this year a total number of 390 new applicants were housed.

To summarise the position, the Council has up to now, provided housing facilities for the citizens of Pretoria as follows:—

Scheme	I	25 Houses.
"	II	100 "
"	III	200 "
"	IV	500 "
"	V Flats	99 "

924

NON-EUROPEAN MEDICAL SERVICES.

The following clinics are conducted exclusively for Non-Europeans by full-time medical officers of the Council at various Non-European centres throughout the City:—

Name of Centre.	Compound Clinic.	Bantule Clinic.	Atteridgeville Clinic.	Special Diseases Clinic, Out-patients Department, Pretoria Hospital.
No. of Child Welfare Clinics per week	3	2	2	—
No. of Venereal Disease Clinics per week	—	1	1	4
No. of Tuberculosis Clinics per week	—	1	1	1
No. of Ante-Natal Clinics per week	1	1	1	—
No. of General Out-Patients clinics per week	3	2	1	—

A resume of the activities at the Child Welfare, Venereal Disease, Tuberculosis, and Ante- and Post-Natal clinics will appear under the relevant sub-heading elsewhere in this report.

Although it is strictly speaking not the function of a Local Authority to conduct General Out-Patients' clinics, and we are supposed to confine ourselves to purely preventive medical work, nevertheless several such General Out-Patients' clinics are conducted at different centres at various times of the day convenient for the patients. In order to gain the confidence of the Natives, it is absolutely necessary to conduct such clinics even though the number of cases of infectious disease discovered may be small in proportion to the actual number of cases seen. It would be difficult for the Native to understand, if the Doctor at the clinic who attends his wife during the ante-natal period, immunises his child against Diphtheria and Whooping Cough, vaccinates it and also attends to a friend of his who is suffering from Tuberculosis, suddenly refuses to treat him when he develops an attack of diarrhoea. No medical practitioner is resident in any of the locations where these clinics are conducted. Unfortunately, these Out-Patient Clinic records do not reflect the number of cases of infectious disease seen, as there would be duplication when they are referred to either the Special Diseases Clinics or the Isolation Hospital.

General Out-Patients' Clinic Returns:

No. of new cases seen	3,519
No. of repeat attendances	1,264
No. of Wasserman Reactions done	321
No. of Wasserman Reactions positive	95
No. of Eye-smears taken	42
No. of positive Gonorrhoea eye-smears	3
No. of Urethral and Cervical smears taken	67
No. of Urethral and Cervical smears positive Gonorrhoea	7
No. of Cases dressed by Orderly	2,830
No. of Dressings done by Orderly	8,792

Dental services are provided, under the auspices of the Pretoria Dental Clinic, twice weekly at the Compound and once weekly at Atteridgeville. The Pretoria Dental Clinic Board receives an annual grant and the necessary accommodation at these two centres, from the City Council. At present only extractions are done. The clinic is free.

For the benefit of Non-European Municipal employees a Sick Parade is held every morning at the Compound Clinic. In former years this item appeared in the Annual Report under the heading "Compound Hospital Returns". As there is no hospital, it is proposed to refer to this service in future as the "Compound Sick Parade". The nature of the work done is similar to that of any Out-Patients' Department and will be more evident from the headings of the table which appears below. There is a small sick-bay in the compound with ten beds. Since all feeding schemes for adult native municipal employees have been terminated, it is impossible to house any sick boys there for any length of time. At the moment the sick-bay is only made use of when boys have to be accommodated for a short while pending removal to hospital. All Native clerks and switch-board attendants in the Compound hold a first-aid certificate and they attend to any minor matters in between sick parades.

At Bon Accord, about ten miles from the centre of town, there is a compound for married boys employed at the Municipal Quarry. About 300 individuals are housed there. Since the beginning of February, 1948, at the request of the City Engineer's Department, medical officers of the Council have undertaken to visit the quarry once fortnightly to render medical aid on lines similar to those at the central Compound Sick Parade. Between these visits, a Non-European Medical Orderly is in attendance and he refers cases to the Central Compound Clinic whenever necessary.

Figures kept at the Compound Sick Parade reveal the following:—

	1947-48.	1946-47.
Number of Natives injured on duty and treated at Compound Hospital	778	293
Number of Natives injured on duty and sent to General Hospital	48	90
Number of Natives injured off duty and treated at Compound Hospital	721	818
Number of Natives injured off duty and sent to General Hospital	148	116
Number of sick Natives treated at Compound Hospital..	2,171	2,045
Number of sick Natives sent to General Hospital..	143	161
Total number of Natives seen by Doctor at Compound Hospital	3,786	3,412
Total number of attendances at Compound Hospital ..	12,989	11,684

The medical examination of Native males at the Registering and Influx Control Office is still carried out by Officers of this Department. It is of some small value in checking the spread of Venereal Disease, Tuberculosis and other infectious or communicable diseases, but the main value appears to lie in the guidance of semi- or totally unfit boys as will appear from the report below.

Since April, 1948, at the request of the Pretoria North Village Council, a Medical Officer of this Department has been examining Native males, before registration of service contracts, in that area on one forenoon each month. The registration is carried out by officials of the Pretoria City Native and Asiatic Administration Department.

The following are details with regard to medical examinations carried out at the Influx Control Office:—

Total number of Native males examined	50,961
Total number vaccinated against Smallpox	9,240
Total number infested with lice	6,148
(a) Head and body lice	2,249
(b) Crab lice	3,899

The total number of Natives found to be either temporarily or permanently unfit for employment was 539

Reasons for unfitness for employment (temporary and permanent):

(1) Total number proved to be suffering from—

Venereal Disease:

(a) Gonorrhoea	70
(b) Primary Syphilis	21
(c) Secondary Syphilis	39
(d) Tertiary Syphilis	38

Of those suspected to be suffering from Venereal Disease (413), 194 failed to report to the Municipal Special Disease Clinic. This has been reported to the Union Health Department, but we were unable to arrive at a satisfactory solution.

(2) Scabies sufferers 22
(3) No. of Natives found to be suffering from—

(a) Pulmonary Tuberculosis (21 Suspected Cases)	7
(b) Other forms of Tuberculosis	4
(4) Leprosy	3
(5) Tapeworm infection	22
(6) Chicken Pox	1
(7) Mumps	1
(8) Acute Balanitis and Subpreputial warts	36
(9) Defective Vision	15
(10) Unfitness due to injuries	22
(11) Bilharzia	6
(12) Non-specific Urethritis	27
(13) Epididymitis	2
(14) Bubo	3
(15) Impetigo Contagiosa	3
(16) Filariasis	1
(17) Other conditions, including Lobar Pneumonia, Epilepsy, Heart disease, Primary Carcinoma of the Liver, Carcinoma of the Rectum, Bronchiectasis, Varicose veins, Varicose ulcers, Inguinal hernia, Hydrocoele, Trichiasis, Torticollis, Tonsillitis, Dental abscess, Arthritic conditions	61

Seventy-one Natives suffering from conditions which were chiefly traumatic in origin but included a number of the above conditions were considered unfit to perform all types of work. These were passed as fit for work of a light nature including domestic work. An Employment Bureau established during 1946 and administered by the Native and Asiatic Administration Department, is still operating. This bureau is available for the purpose of allocating special types of work to suit the particular requirements of partially unfit Natives and is a valuable aid both to employer and employee.

As mentioned in last years' report, the Natives arriving at the Reception Depot for medical examination are completely stripped and examined in a large centrally heated room provided for the purpose. A general examination is made with special reference to acute infectious fevers, all forms of tuberculosis, skin diseases, cardiac and pulmonary conditions, venereal diseases, injuries and other ailments which might have rendered them unfit for work among healthy communities or an economic burden in the municipal area. Natives were privately examined where such requests were made, special facilities are available for that purpose.

Vaccination was also carried out on Natives who had not previously been successfully vaccinated as defined in the Public Health Act of the Union.

Those Natives infested with head and body lice or pubic lice were subjected to treatment with one application of 10% D.D.T. powder. Their clothing was treated in a similar manner. Where bodily cleanliness had obviously been neglected for some time, they were compelled to make use of the bathing facilities provided for them.

Those who were found to be indisposed owing to illness, disease or injuries and thus temporarily unfit for employment were referred to the Special Diseases Clinic or to the Isolation Hospital, both administered by Pretoria Municipality, or to the Non-European Out-Patients' Department and Casualty Department of the Pretoria General Hospital. From the latter two departments cases could be referred when necessary to departments dealing with eye and ear, nose and throat out-patients. Arrangements could also be made between the Medical Officer at the Registry Office and the Hospital Casualty Department for major or minor surgical operations to be carried out where necessary. By these means most hospital departments were made available to indisposed Natives passing through the Influx Control and Registry Offices, so that Natives seeking employment in Pretoria were treated promptly and thoroughly before returning for subsequent medical examination at the Influx Control and Registry Offices.

In certain severe cases of illness or injury, where their conditions could not be improved by further treatment, work in the Pretoria area was prohibited. Where Natives who had been working for some time in Pretoria and had contracted a disabling injury or disease, came for further medical examination and registration, they were, on being considered unfit for further employment, referred to the Native Commissioner for disability pensions.

No progress has been made during the last twelve months with regard to better provision of accommodation during periods of temporary unemployment for sufferers from venereal disease or other conditions for which out-patient treatment was required before registration, through no fault of this department or the City Council.

Special Reference to individual diseases.

Venereal Diseases:

All cases from the Influx Control Office suspected to be suffering from venereal disease were referred to the Municipal Special Diseases Clinic. As previously, cases were traced as out-patients with isolated exceptions who were traced at the Isolation Hospital. Up to now hospital accommodation for venereal disease sufferers has been very limited, but the proposed extensions to the Isolation Hospital will no doubt alleviate matters in the future.

Natives suffering from venereal diseases in a non-communicable form were passed as fit for employment but instructed to report for treatment at the Special Diseases Clinic. The number of cases failing to attend the Special Diseases Clinic for treatment of venereal disease as advised was regrettable. During the last year about 47% of cases who were advised to seek such treatment failed to do so.

Pulmonary Tuberculosis:

All cases suspected to be suffering from pulmonary tuberculosis were referred to hospital for X-ray examination of the chest. Examinations of the sputum in such cases were also carried out. Cases proved to be suffering from either pulmonary or other forms of tuberculosis were considered totally unfit for employment within the municipal area. Such cases are among those referred to the Native Commissioner for invalidity pensions. Permanent exemption from payment of taxes was also recommended. The majority of such cases are returned to the rural areas from which they came. These procedures to some extent lessen the spread of tuberculosis in urban areas but are very unsatisfactory from the point of view of the sufferer. Steps have, however, been taken at the municipal polyclinics to look after contacts of tuberculosis sufferers by periodical chest, X-ray and sputum examinations.

Acute Infectious Fevers:

Sufferers of these conditions when found at the Registry Office are sent by ambulance to the Isolation Hospital for observation and treatment, following which they re-attend at the Registry Office for further examination before being permitted to register for work.

General:

For the year under review the following are the most salient features of progress as far as Non-European Services are concerned:—

1. An extension of clinic facilities, such as additional Child Welfare, Ante-Natal and Tuberculosis clinics.
2. An increased clinic attendance.
3. The vaccination as far as possible of all school- and pre-school children at Atteridgeville Location in preparation for routine vaccination at all Child Welfare clinics at that centre. Such routine vaccination is done at all other Child Welfare clinics.
4. The extension and renovation of the Compound Clinic building.
5. The finalisation of the plans for the new Atteridgeville Clinic.
6. The commencement of building operations on the new Non-European Special Diseases Clinic, in the Pretoria Hospital grounds, as a second storey to the present European clinic.
7. The medical examination of Native males at Pretoria North for Service Contract purposes as required by the Native Urban Areas Act.
8. The incorporation of the sick parade for Native Municipal employees at Bon Accord Compound.
9. An extension of Feeding Schemes for pre-school children. A description of this will appear elsewhere in this report.

In spite of all attempts to improve the feeding of Non-European children, an appreciable amount of malnutrition still exists. It is known that in Pretoria, at certain times of the year, many hundred gallons of skimmed milk have to go waste daily as there is no market for it as such. To turn this regrettable waste of valuable food to advantage, it was decided, in co-operation with the Pretoria Milk Distributors' Association, to conduct an experiment at the Bantule Location Clinic:

During the first few months of 1948, through some of its members, the Association supplied acidophilised skimmed milk at 8d. per gallon. The price was later raised to 10d. per gallon. This milk was then re-sold, out of 20 gallon cans, at 1½d. per pint, to Non-Europeans who came to fetch it in their own receptacles. The small profit of 2d. to 4d. per gallon was sufficient to cover administration costs. As the milk was only kept in the clinic building for a matter of a few hours and it had been purposely soured, no special refrigeration was necessary. This experiment was just proving to be a success, thanks largely to the enthusiastic, willing and pleasant co-operation of the Secretary and members of the Pretoria Milk Distributors' Association, when it had to be abandoned because milk again became short in supply.

Certain facts were, however, established beyond doubt:—

1. There is practically no market for fresh skimmed milk, but the Native is very partial to soured skimmed milk (acidophilised).
2. The Native is rather a connoisseur of soured milk and it was found that slight variations, which of necessity occurred, as not all dairymen used the same process, caused them to refuse the milk on certain days. A standardised formula which gives a product acceptable to him is therefore a necessity to make such a scheme a success.
3. It would not be a payable proposition for the retail milk trade to handle this commodity, as distribution and handling would raise the cost to the consumer beyond his purchasing power, or beyond its value as a food. It would only be practicable to distribute it on lines somewhat similar to those outlined above, by a non-profitmaking organisation.
4. It is not practical to build up such an organisation for a few months and then abandon it again during months of short supply.
5. A possible solution might be the reconstitution of dried skimmed milk and then acidophilising this during the months when there is no surplus milk. Whether this product would be acceptable to the palate of the Native would still have to be established; but, as the question of knowing what to do with surplus milk at certain times of the year is one which not only confronts Pretoria, but practically every city in the Union, it is felt that this matter may be advantageously pursued further.

NON-EUROPEAN HOUSING, DISTRIBUTION AND SOCIAL SERVICES.

(Submitted by Native and Asiatic Administration Department).

A. BANTU:

1. The number of Natives resident in the Pretoria Urban Area as at the end of June, 1947, is as follows:—

(a) Resident in Compounds, Barracks, Hostels and Licensed Native Housing (approx.)	16,000
(b) Domestic servants resident on employers premises (approx.) ..	25,000
(c) Resident in Hospitals, Asylums and other Institutions (approx.) ..	750
(d) Resident in Native Locations and Villages	17,577
TOTAL	59,327

2. Municipal Native Locations:

(a) Atteridgeville:

(i) Number of Stands	4,477
(ii) Number of Dwellings	1,260
(iii) Total Population	9,264
(iv) Average number of persons per dwelling	7.3

(b) Bantule:

(i) Number of Stands:

New Location	50
Municipal Houses	248
Hove's Ground (Native Village)	140
Hove's Ground West (Native Village)	10
Cottages for Municipal Employees	3

TOTAL **451**

(ii) Number of Dwellings:

New Location	50
Municipal Houses	248
Hove's Ground (Native Village)	140
Hove's Ground West (Native Village)	10
Cottage for Municipal Employees	3

TOTAL **451**

(iii) Total Population:

New Location	557
Municipal Houses	2,995
Hove's Ground (Native Village)	3,205
Hove's Ground West (Native Village)	201
Cottages for Municipal Employees	30

TOTAL **6,988**

(iv) Average number of persons per dwelling:

New Location	11
Municipal Houses	10
Hove's Ground (Native Village)	22
Hove's Ground West (Native Village)	10
Cottages for Municipal Employees	10

(c) Remainder of Marabas Village:

(i) Number of Stands left	92
(ii) Number of Dwellings	92
(iii) Total Population	1,325
(iv) Average number of persons per dwelling	14.4

B. CAPE COLOURED:

Total population of Cape Coloureds in the Urban Area of Pretoria—about 3,064.

(a) Cape Location:

(i) Number of Stands	191
(ii) Number of Dwellings	191
(iii) Total Population	1,954
(iv) Average number of persons per dwelling	10.4

C. ASIATIC POPULATION:

(a) Asiatic Bazaar:

Total population of Asiatics in the Urban Area of Pretoria—about 4,300.

(i) Number of Stands	343
(ii) Number of Dwellings	262
(iii) Total Population (approx.)	2,930
(iv) Average number of persons per dwelling	11.1

D. EASTERN LOCATION:

The farm Vlakfontein 393 is in extent 1,740 morgen, 161 square roods, a small portion of which has been set aside for an Industrial School, a Primary School, a Normal College and the Kollege Ya Bana Ba Afrika. (Building operations have been commenced by the Department of Education).

The following is an analysis of the population of Vlakfontein (according to figures compiled during August, 1948):—

Males.		Females.		Total.
Over 18.	Under 18.	Over 18.	Under 18.	
482	544	489	526	2,041

For purposes of comparison the figures for 1946 are subjoined (Regional Census):—

Males.		Females.		Total.
Over 18.	Under 18.	Over 18.	Under 18.	
438	439	440	508	1,825

There are at present 316 households with an average of just over six persons per house. No rent is paid by the owners but labour tenant contracts are entered into with them in terms of Section 4 (i) of Act 24 of 1932.

An experimental sociological unit of 24 lapas (Note: a "lapa" is a native type of hut constructed by the City Council), has been erected at Vlakfontein. This consists of 77 rondavels, 15 of which still have to be thatched. The principle underlying the scheme is the adaptation of Bantu housing principles to the provision of houses for Bantu in urban areas.

E. REGISTERING, INFLUX CONTROL AND TOWN INSPECTION:

16,373 New service contracts were issued and 27,685 Natives who were discharged from their employment were re-registered by this office. The total amount collected in registration fees amounted to £49,136. 1s. 0d.

20,294 Permits to seek work were issued to Natives entering the Urban Area from outside, and 6,356 Natives were refused entry into this Urban Area.

50,961 Natives were examined of whom 9,420 were vaccinated against smallpox. 481 Natives were either temporary or permanently unfit for employment.

During the above period the Town Inspectors paid 571 visits to licensed premises. 953 Premises were visited in response to certain complaints that had been lodged with this office. 1,755 Cease housing notices were issued. 703 Premises were re-inspected. 7,783 Visits to premises were undertaken and 2,353 warnings were issued to various employers for failing to register their employees.

SERVANTS REGISTRY OFFICE.

1. Employees registered and placed in employment:

(a) Male natives registered	1,528
Females registered	64
(b) Male natives placed in employment	981
Females placed in employment	26
(c) Natives placed in farm labour	65

2. Employers registered:

Vacancies registered for domestic servants:

(a) Males	2,996
(b) Females	404

3. On account of the lack of education and experience in domestic work, this office could only place 981, out of 1,528 Native males registered. The 547 who were not placed, were sent out several times to employers, but as most of them came from the country, it was very difficult for them to find the addresses indicated. The result is that many take up work on their own without advising this office. A delivery van has now been obtained and this office should now be able to carry out its work on a much more satisfactory basis.

UNEMPLOYMENT INSURANCE OFFICE.

1. Benefits paid	£141 18 7
2. Employees placed in employment	2,614
3. Employees registered for benefits	1,047

SOCIAL WELFARE AND RECREATION.

(1) General:

The Social Welfare and Recreation Section has now been split into two separate sections with a Social Welfare Officer and a Recreation Officer at the head of each section, respectively. The work of these two sections is of such a nature, that it passes into, and is completed by one another. They work in close collaboration with each other under the supervision of the Senior Superintendent of Social Welfare and Recreation.

(2) Social Welfare:

The Social Welfare officer, with his staff of two Male and three Female Non-European social workers, are responsible for the welfare work among all sections of the Community. They receive the full co-operation and the ready assistance of the Child Welfare Society, the S.A. Social Services, the Social Welfare Department, the Native Affairs Department and various other bodies and individuals. To the above bodies, we wish to extend our sincerest appreciation.

Very valuable work is being done, but such a small staff makes an extensive and thorough social welfare programme almost impossible.

(3) Recreation:

The Recreation Officer, assisted by:

- 1 European full-time physical training instructor.
- 1 Non-European full-time physical training instructor.
- 1 Non-European full-time sports organiser.
- 1 Non-European part-time physical training instructor.
- 2 Non-European part-time physical training instructresses, as well as two representatives from the Transvaal Non-European Boy's Clubs Association, organises and administers all the recreation.

There are five Municipal soccer fields (two of which are in Groenkloof, for domestic servants), one rugby field, four tennis courts, one field for tribal dancing, apart from the S.A.P. and Iscor fields, to serve the Native population. The Indian community has two tennis courts and two soccer fields; the Coloureds have one soccer field and two tennis courts at their disposal. These sports grounds meet the needs of over a thousand participants in soccer, rugby, tennis, hockey and tribal dancing, etc., weekly. In addition, it draws many spectators to these centres, especially over the week-ends.

There are fourteen organised junior and senior recreation clubs which include gymnastics, boxing, games, singing and dramatic art in their curriculum.

In collaboration with the Native Affairs Department, competitive athletics have now been introduced with a view of organising S.A. Championships in the near future.

The recreation programme of nine Natives, one Coloured and one Indian school is the responsibility of this section. Both intra- and extra-mural activities are arranged for the scholars.

The Recreation Section have arranged and tendered a physical training instructors' course for teachers and student teachers, with the co-operation of the Native Education Department.

The object is to increase the number of qualified instructors and instructresses to assist with the school recreation programme and clubwork.

This section reports a favourable improvement during the past year. The proposed new sports grounds in the northern suburbs and the recreation utility hall, which have been adopted in principle by the Council, could further enhance our recreation programme and consequently combat social evils.

Table No. 1.

BIRTHS (ALL RACES) FOR THE YEAR ENDED 30th JUNE, 1948.

	EUROPEAN.				NATIVE.				ASIATIC.				EURAFRICAN.			
	Legitimate.		Illegitimate.		Legitimate.		Illegitimate.		Legitimate.		Illegitimate.		Legitimate.		Illegitimate.	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
July ..	113	86	—	1	—	1	5	4	4	3	—	—	1	4	—	—
August ..	125	113	23	3	23	31	21	24	6	9	—	—	2	4	—	1
September ..	112	109	5	—	5	10	5	14	8	9	—	—	1	—	—	1
October ..	153	142	3	1	7	7	6	8	7	6	—	—	1	—	—	—
November ..	107	113	1	1	19	16	16	18	5	10	—	—	1	1	—	3
December ..	132	138	1	2	15	16	11	13	7	10	—	—	2	1	—	—
January ..	113	129	1	1	3	9	8	4	10	3	—	—	1	1	—	1
February ..	94	96	1	1	8	6	14	10	7	7	—	—	2	1	—	2
March ..	125	110	2	—	16	10	14	4	9	10	—	—	1	2	—	2
April ..	107	100	1	3	6	7	6	9	10	6	—	—	3	2	—	1
May ..	125	106	—	1	11	13	16	13	6	5	—	—	3	3	—	1
June ..	172	142	2	3	7	12	11	14	8	12	—	—	4	4	—	—
TOTALS	1,478	1,384	16	17	120	138	133	135	87	90	—	1	21	19	6	12

STILLBIRTHS (LOCAL-RESIDENTS).

BIRTHS TO NON-RESIDENTS.

	EUROPEAN.				NON-EUROPEAN.				EUROPEAN.				NON-EUROPEAN.			
	Male		Female		Male		Female		Male		Female		Male		Female	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
July ..	3	3	3	3	1	1	25	35	3	3	3	6	3	9	3	8
August ..	3	3	2	1	2	1	44	28	9	3	3	8	9	3	—	—
September ..	—	—	2	1	1	1	28	31	3	4	4	1	4	4	15	15
October ..	4	1	2	3	9	3	38	31	15	15	15	10	15	11	10	10
November ..	—	—	2	2	1	—	34	24	39	39	39	2	3	3	2	2
December ..	4	1	1	—	—	—	51	39	29	34	34	9	8	8	6	6
January ..	2	1	1	—	4	—	29	42	28	42	42	14	14	14	8	8
February ..	1	3	—	3	4	2	43	40	43	40	40	3	3	3	3	3
March ..	3	1	1	1	2	2	43	29	28	29	29	6	6	6	2	2
April ..	—	—	1	2	3	1	28	56	62	62	62	6	6	6	6	6
May ..	1	2	2	2	3	3	6	12	12	12	12	12	12	12	12	12
June ..	3	2	2	2	3	3	11	14	14	14	14	14	14	14	14	14
TOTALS	24	20	20	30	453	429	93	70	453	429	93	70	453	429	93	70

Table No. 2.
DEATHS OF EUROPEAN CHILDREN UNDER 5 YEARS OF AGE FOR THE YEAR ENDED 30th JUNE, 1948.

	24 Hours and under.		Over 24 hours to 1 week.		Over 1 week to 1 month.		Over 1 month to 3 months.		Over 3 months to 6 months.		Over 6 months to 12 months.		Total infantile mortality.		1 Year to 2 years.		Over 2 years to 3 years.		Over 3 years to 4 years.		Over 4 years to 5 years.		Total under 5 years.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough .. .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis (Acute) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nematodes (Round) .. .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tumours	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malnutrition	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningitis (non-Men.) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convulsions	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Heart Disease (Rheumatic)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Bronchitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Broncho Pneumonia .. .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hydrocephalus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spina Bifida	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital Malform. of Heart	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Monstrosity	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Congenital	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malform.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital Debility	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Premature Birth	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Birth Injury	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asphyxia During or After Birth	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Atelectasis	5	7	5	3	10	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaena Neonatorum ..	1	2	1	2	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases of Early Infancy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Infanticide	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Accidents:	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burns	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landslide	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Anaesthetic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unspecified Causes .. .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL MALES ..	6	—	10	—	17	—	10	—	8	—	8	—	53	—	4	—	4	—	1	—	1	—	63	—
TOTAL FEMALES ..	—	16	—	8	—	10	—	2	—	4	—	2	—	43	—	3	—	2	—	2	—	1	—	51

Table No. 3.
DEATHS OF NON-EUROPEAN CHILDREN UNDER 5 YEARS OF AGE FOR THE YEAR ENDED 30th JUNE, 1948.

NATIVE.	24 Hours and under.		Over 24 Hours to 1 week.		Over 1 week to 1 month.		Over 1 month to 3 months.		Over 3 months to 6 months.		Over 6 months to 12 months.		Total infantile mortality.		1 Year to 2 years.		Over 2 years to 3 years.		Over 3 years to 4 years.		Over 4 years to 5 years.		Total under 5 years.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Infanticide	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases (1st year of Life)	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Intestinal Obstruction	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis (all forms)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital Syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malnutrition	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Intercranial Abscess	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningitis (non-Meningococcal)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gangrene	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Bronchitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Broncho Pneumonia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lobar Pneumonia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhoea and Enteritis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nephritis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital Causes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Prematurity	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Birth Injury	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Atelectasis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Accidents:—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Poisoning	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burns	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Drowning and Suffocation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malacena Neonatorium	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unstated or Illdefined	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL MALES	9	—	4	—	6	—	6	—	6	—	7	—	38	—	16	—	2	—	2	—	1	—	59	—
TOTAL FEMALES	—	5	—	7	—	3	—	3	—	3	—	4	—	35	—	14	—	10	—	4	—	1	—	64

DEATHS OF NON-EUROPEAN CHILDREN UNDER 5 YEARS OF AGE FOR THE YEAR ENDED 30th JUNE, 1948.

DEATHS OF NON-EUROPEAN CHILDREN UNDER 5 YEARS OF AGE FOR THE YEAR ENDED 30th JUNE, 1948—(Contd.)

Table No. 4.

DEATHS OF EUROPEANS, 5 YEARS OF AGE AND OVER, WITHIN THE MUNICIPALITY FOR THE YEAR ENDED 30th JUNE, 1948.

	5-10		15		20		25		30		40		50		60		70		80		Over 80		Total		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Infectious and Parasitic Diseases	1	1	1	1	1	1	1	1	1	1	4	2	8	—	4	2	7	1	—	1	—	—	27	8	
Malignant and Other Tumours	—	1	—	—	—	—	—	1	—	—	1	3	5	4	13	6	7	9	17	9	3	5	46	38	
Diseases of Nutrition and of Other Endocrine General Diseases	—	—	—	—	—	—	2	—	1	—	—	—	—	—	—	2	3	2	1	2	1	—	5	9	
Diseases of the Blood and Blood Forming Organs	—	—	—	—	—	—	—	1	—	—	—	2	—	1	—	—	—	2	—	1	1	—	1	7	
Diseases of the Nervous System and Sense Organs	—	—	—	—	1	—	—	—	—	—	2	—	—	—	2	2	5	7	8	7	7	2	3	21	
Diseases of the Circulatory System	—	—	1	1	—	—	1	—	—	—	3	3	9	7	20	8	21	16	28	20	16	15	99	70	
Diseases of the Respiratory System	—	—	—	—	—	—	1	1	—	—	3	1	3	1	13	4	6	2	7	1	2	2	35	12	
Diseases of the Digestive Organ System	—	—	—	—	1	—	—	1	—	—	4	4	3	1	2	2	4	3	2	2	2	2	19	15	
Non-Veneral Diseases of the Genito Urinary System and Adnexa	—	—	—	—	—	—	1	1	—	—	2	1	1	5	5	—	4	7	10	1	3	2	26	17	
Diseases of Pregnancy and Puerperal State	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	
Diseases of the Skin and Cellular Tissue	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Congenital Malformations	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1	
Old Age	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	4	7	4	
Suicide and Homicide	—	—	—	—	—	1	—	1	—	—	1	—	1	—	3	—	—	—	1	—	—	—	9	—	
Accident	3	—	—	—	—	—	1	—	5	—	2	1	3	1	4	1	2	1	1	4	3	2	24	10	
Ill-Defined Cause	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	1	—	—	1	—	3	1	
TOTAL MALES ..	4	—	2	—	5	—	4	—	8	—	23	—	33	—	66	—	61	—	74	—	42	—	322	—	
TOTAL FEMALES ..	—	2	—	2	—	1	—	8	—	1	—	18	—	22	—	30	—	52	—	47	—	35	—	218	—

Table No. 5.
DEATHS OF NATIVES, 5 YEARS OF AGE AND OVER WITHIN THE MUNICIPALITY FOR YEAR ENDED 30th JUNE, 1948.

	5-10 Years.		-15 Years.		-20 Years.		-25 Years.		-30 Years.		-40 Years.		-50 Years.		-60 Years.		-70 Years.		-80 Years.		Over 80 Years.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Infectious and Parasitic Diseases	—	1	—	—	4	2	6	4	6	2	12	2	4	2	6	—	4	—	1	—	—	—	1	43	14
Malignant and Other Tumours	—	—	—	—	—	—	—	—	—	—	1	1	2	—	3	—	—	—	—	—	—	—	6	1	
Diseases of Nutrition and of Other Endocrine Glands ..	—	2	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	2	3	
Diseases of the Blood and Blood Forming Organs	—	—	—	—	—	—	—	—	—	—	2	—	1	—	—	—	—	—	—	—	—	—	3	—	
Diseases of the Nervous System and Sense Organs	—	1	—	1	1	1	1	1	2	1	2	—	1	—	1	1	—	2	—	—	—	—	8	7	
Diseases of the Circulatory System	—	—	—	—	1	1	—	—	—	—	—	1	4	3	—	2	3	1	—	1	—	—	8	9	
Diseases of the Respiratory System	1	1	—	—	2	—	5	2	1	—	3	5	7	1	3	1	3	1	—	2	1	2	26	15	
Diseases of the Digestive Organs	1	—	—	—	1	—	1	—	—	—	1	—	1	—	—	—	1	—	—	—	—	—	6	—	
Non-Veneral Diseases of the Genito-Urinary System and Adnexa ..	—	—	—	—	—	—	—	—	1	—	1	1	4	1	—	1	—	—	2	—	2	1	10	4	
Diseases of Pregnancy and Puerperal State ..	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	4	
Diseases of the Skin and Cellular Tissue ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	
Senility	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	3	
Suicide	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Homicide	—	—	—	—	—	—	3	—	1	—	3	—	1	—	—	—	1	—	—	—	—	—	9	—	
Accident	—	—	1	1	1	—	—	1	9	—	7	—	8	—	1	—	—	—	—	—	—	—	27	2	
Open Verdict Ill-defined and Unknown Causes ..	—	—	—	—	—	—	—	—	1	1	4	—	1	—	—	—	—	—	—	—	—	—	6	1	
Diseases of Bones and Organs of Movement ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	
Congenital Malformations ..	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
TOTAL MALES ..	2	—	1	—	10	—	17	—	21	—	36	—	34	—	17	—	12	—	3	—	3	—	156	—	
TOTAL FEMALES ..	—	5	—	2	—	4	—	9	—	7	—	10	—	7	—	5	—	4	—	7	—	4	—	64	

Table No. 6.

INFANTILE MORTALITY, EUROPEAN: CAUSES OF DEATH AND MORTALITY RATES FOR THE YEAR ENDED JUNE, 1948.

	Infectious diseases.		Diarrhoeal diseases.		Bronchitis pneumonia.		Congenital causes.		Other diseases.		Prematurity.		Injury at birth.		Total deaths.		Total births.		Mortality rates per 1,000 live births.		Total rates.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Central Area .. .	1	—	1	—	2	—	—	1	3	1	3	4	1	1	11	7	281	249	39.15	28.11	33.96
Pretoria West .. .	—	—	3	2	2	—	1	1	—	—	3	3	—	1	9	7	231	234	38.96	29.91	34.41
Leper and Mental Hospitals Prison and Defence Reserves ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	6	—	166.67	76.92
Salvokop .. .	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	16	16	62.50	—	31.25
Roberts Heights ..	—	—	—	—	1	—	—	—	1	1	1	—	—	—	3	1	46	54	65.22	18.52	40.00
Eastern Suburbs ..	—	—	1	1	1	2	1	2	1	2	4	3	—	—	8	10	367	327	21.80	30.58	25.93
Northern Suburbs ..	1	—	1	3	5	2	2	2	1	3	9	4	2	3	21	17	546	515	38.46	33.01	35.82
TOTAL MALES ..	2	—	6	—	12	—	4	—	6	—	20	—	3	—	53	—	1,494	—	35.48	—	33.16
TOTAL FEMALES ..	—	—	—	6	—	4	—	6	—	7	—	15	—	5	—	43	—	1,401	—	30.69	

Table No. 7.
 INFANTILE MORTALITY, ALL NON-EUROPEAN RACES: DISTRICT INCIDENCE FOR THE YEAR ENDED 30th JUNE, 1948.

	Infectious diseases.		Diarrhoeal diseases.		Bronchitis Pneumonia.		Congenital causes.		Other diseases.		Prematurity.		Injury at birth.		Total deaths.		Total births.		Mortality rates per 1,000 live births.		Total rates.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
NATIVE.																						
Marabas	—	1	2	—	1	2	—	—	1	—	1	1	—	—	5	4	6	10	833.33	400.00	562.50	
Bantule	—	—	2	6	5	7	1	—	—	1	3	—	1	—	12	14	91	100	132.00	140.00	136.13	
Atteridgeville	—	—	1	2	4	2	—	1	—	1	1	2	1	—	7	8	114	133	61.40	60.15	60.33	
Town	—	—	1	—	—	—	3	—	4	5	5	4	1	—	14	9	42	30	333.33	300.00	319.44	
TOTALS MALE	—	—	6	—	10	—	4	—	5	—	10	—	3	—	38	—	253	—	150.20	—	133.11	
TOTALS FEMALE	—	—	—	8	—	11	—	1	—	7	—	7	—	—	—	35	—	273	—	—		
ASIATIC.																						
Location	—	—	—	—	2	—	—	1	—	1	1	1	2	—	3	5	66	66	45.45	75.76	60.61	
Town	—	—	1	—	—	—	—	—	—	—	—	2	—	—	1	2	21	25	47.62	80.00	65.22	
TOTALS MALE	—	—	1	—	—	—	1	—	1	—	1	—	—	—	4	—	87	—	45.98	—	61.81	
TOTALS FEMALE	—	—	—	2	—	—	—	—	—	1	—	4	—	—	—	7	—	91	—	76.92		
EUROAFRICAN.																						
Location	—	—	—	—	1	3	3	—	—	—	2	1	—	—	5	5	24	28	208.33	178.57	192.31	
Town	—	—	—	—	—	—	1	—	—	2	—	—	—	—	—	3	3	—	1000.00	500.00	500.00	
TOTALS MALE	—	—	—	—	3	—	—	—	—	—	2	—	—	—	5	—	27	—	185.19	—	224.14	
TOTALS FEMALE	—	—	—	1	—	4	—	—	—	2	—	1	—	—	—	8	—	31	—	258.07		
ALL NON-EUROPEAN.																						
Locations	—	—	1	5	11	13	14	2	1	2	3	8	6	2	—	32	36	301	337	106.31	106.82	106.58
Town	—	—	—	2	—	—	—	1	3	—	4	2	5	6	1	15	9	66	58	227.27	155.72	193.55
TOTALS MALE	—	—	7	—	13	—	15	5	—	6	—	13	—	3	—	47	—	367	—	128.07	—	113.92
TOTALS FEMALE	—	—	—	11	—	—	—	—	1	—	5	—	12	—	—	45	—	—	395	—	120.74	

Table No. 8.
DEATHS IN INSTITUTIONS OF PERSONS NOT RESIDENT IN PRETORIA: FOR THE YEAR ENDED 30th JUNE, 1948.

		0-1 Years.		1-5 Years.		5-10 Years.		10-20 Years.		20-40 Years.		Over 40 Years.		Total Europeans,		Total Non-Europeans.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
PRETORIA AND OTHER HOSPITALS.																	
European	..	34	29	10	14	—	3	15	3	31	6	106	42	196	97	—	—
Non-European	..	36	32	44	33	11	5	22	15	86	35	115	25	—	—	314	145
MENTAL HOSPITAL.																	
European	..	—	—	—	—	—	—	—	—	1	3	28	12	29	15	—	—
Non-European	..	—	—	—	—	—	—	4	—	18	2	27	5	—	—	49	7
LEPER ASYLUM.																	
European	..	—	—	—	—	—	—	1	—	—	—	2	2	3	2	—	—
Non-European	..	2	—	1	—	—	1	4	2	31	13	23	12	—	—	61	28
PRISONS.																	
European	..	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Non-European	..	1	—	—	—	—	1	2	—	30	1	3	—	—	—	6	2
VISITORS.																	
European	..	—	1	—	1	—	—	2	—	3	—	11	5	16	7	—	—
Non-European	..	3	—	1	1	—	1	—	1	3	2	6	—	—	—	13	5
TOTAL EUROPEANS	..	34	30	10	15	—	3	18	3	35	9	148	61	245	121	—	—
TOTAL NON-EUROPEANS	..	42	32	46	34	11	7	32	18	168	53	174	43	—	—	473	187

Table No. 9.
NOTIFICATION OF INFECTIOUS DISEASES: LOCAL CASES: ALL RACES, FOR THE YEAR ENDED 30th JUNE, 1948.

EUROPEANS.

	0-1 Year.		1-5 Years.		5-10 Years.		10-20 Years.		20-40 Years.		Over 40 Years.		Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Typhoid Fever	—	—	1	1	—	2	2	3	1	2	1	—	5	8
Malta Fever	—	—	—	—	—	—	—	—	—	—	1	—	1	—
Leprosy	—	—	—	—	—	—	—	—	—	—	1	—	1	—
Scarlet Fever	—	—	35	32	59	51	11	24	1	3	—	—	106	110
Diphtheria	1	—	10	2	4	9	3	4	4	6	2	2	24	23
Erysipelas	—	1	—	—	—	—	—	—	—	1	3	2	3	4
Poliomyelitis	5	—	17	15	12	6	9	3	1	1	—	—	44	25
Infective Encephalitis	—	—	—	—	—	—	—	—	1	—	—	—	1	—
Cerebro-Spinal Meningitis	—	—	—	—	—	2	2	1	—	—	4	—	6	3
Tuberculosis	—	—	1	1	—	—	—	1	3	4	4	—	8	6
G.C. Ophthalmia	1	—	—	—	—	—	—	—	—	—	—	—	1	—
Ophthalmia Neonatorum	—	1	—	—	—	—	—	—	—	—	—	—	—	1

NON-EUROPEANS.

Typhoid Fever	—	—	—	—	3	—	1	1	5	—	—	—	9	1
Small Pox	—	—	—	—	—	—	1	—	—	—	—	—	1	—
Diphtheria	—	—	—	1	1	—	—	—	—	3	—	—	1	4
Erysipelas	—	—	—	—	—	—	—	—	1	—	—	—	2	—
Poliomyelitis	—	—	—	1	—	—	—	1	—	1	—	1	—	4
Cerebro-Spinal Meningitis	—	—	—	1	—	—	2	1	7	—	1	1	10	3
Tuberculosis	—	1	1	5	—	—	6	9	21	20	14	5	42	40
Puerperal Fever	—	—	—	—	—	—	—	2	—	—	—	—	—	2

Table No. 10.
NOTIFICATION OF INFECTIOUS DISEASES: IMPORTED CASES: ALL RACES, FOR THE YEAR ENDED 30th JUNE, 1948.

	0-1 Year.		1-5 Years.		5-10 Years.		10-20 Years.		20-40 Years.		Over 40 Years.		Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
EUROPEANS.														
Typhoid Fever	—	—	2	—	3	2	9	6	1	2	3	2	18	12
Malta Fever	—	—	—	—	—	—	—	—	1	—	—	—	1	—
Malaria	—	—	—	1	—	—	—	—	1	—	—	2	1	3
Small Pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	—	2	2	1	2	1	2	—	—	—	—	4	6
Diphtheria	2	1	9	11	7	7	1	3	1	1	1	—	21	23
Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis	1	1	22	14	8	3	7	5	1	5	2	6	41	28
Infective Encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Meningitis	—	—	—	—	1	1	2	1	—	—	1	—	4	3
Tuberculosis	—	—	2	—	—	1	2	2	10	9	15	3	29	16
Puerperal Fever	—	—	—	—	—	—	—	—	—	2	—	—	—	2
Leprosy	—	—	—	—	—	—	1	—	—	—	—	—	1	—
Relapsing Fever	—	—	—	—	—	—	—	—	—	—	1	—	1	—
NON-EUROPEANS.														
Typhoid Fever	—	—	1	2	6	5	20	17	21	13	7	3	55	40
Malaria	—	—	12	9	6	5	2	1	4	—	1	—	5	1
Diphtheria	1	—	—	—	—	—	2	2	1	3	—	—	22	19
Opthalmia Neonatorum	1	—	5	9	1	—	1	—	—	—	—	—	1	—
Poliomyelitis	2	—	—	—	—	—	2	—	4	—	—	—	13	11
Cerebro-Spinal Meningitis	—	—	—	—	—	—	2	—	6	2	—	—	8	7
Trachoma	—	—	—	—	—	—	1	—	1	1	2	—	4	2
Tuberculosis	1	1	10	2	—	1	2	10	40	19	16	6	69	39
Puerperal Fever	—	—	—	—	—	—	—	—	3	7	—	—	—	7
Relapsing Fever	—	—	—	—	—	—	—	—	—	1	1	—	4	1
Typhus	—	—	—	—	—	—	—	—	—	2	—	—	—	2
Small Pox	—	—	—	1	—	—	1	—	—	—	—	—	1	1
Scarlet Fever	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Leprosy	—	—	—	—	—	—	—	—	—	—	—	—	—	—
G.C. Opthalmia	—	—	—	—	—	—	—	—	2	—	1	—	3	1

Table No. 12.

INCIDENCE OF INFECTIOUS DISEASES FOR THE YEAR ENDED 30th JUNE, 1948.

			Typhoid Fever.	Typhus Fever.	Mala. Fever.	Malaria.	Small Pox.	Scarlet Fever.	Diphtheria.	Leprosy.	Erysipelas.	Polymyelitis.	Infectious Encephalitis.	Men. Meningitis.	Anthrax.	Tuberculosis.	Opth. Neon.	Lead Poisoning.	Trachoma.	Puerperal F.	Gonorrh. Opth.	Relapsing F.
July—																						
European	..	Resident	-	-	-	-	-	9	1	1	1	-	-	-	-	-	-	-	-	-	-	-
		Imported	-	-	-	1	-	-	2	-	-	-	-	3	-	3	-	-	-	-	-	-
Non-European		Resident	1	-	-	-	1	-	2	-	-	-	-	2	-	7	-	-	-	-	-	-
		Imported	3	-	-	1	1	1	2	1	-	1	-	2	-	7	-	-	-	2	1	-
August—																						
European	..	Resident	-	-	-	-	-	16	2	-	-	-	-	2	-	1	-	-	-	-	-	-
		Imported	2	-	-	-	-	-	2	-	-	-	-	-	-	7	-	-	-	-	-	-
Non-European		Resident	1	-	-	-	-	-	1	-	1	-	-	1	-	7	-	-	-	1	-	-
		Imported	4	-	-	-	-	-	2	1	-	-	-	-	-	10	-	-	1	1	-	-
September—																						
European	..	Resident	-	-	-	-	-	26	9	-	4	1	-	-	-	1	-	-	-	-	-	-
		Imported	2	-	-	-	-	-	-	-	1	-	-	-	-	7	-	-	-	-	-	-
Non-European		Resident	1	-	-	-	-	-	1	-	-	-	-	1	-	11	-	-	-	-	-	-
		Imported	-	-	-	-	-	-	2	-	-	-	-	7	-	8	-	-	-	-	-	-
October—																						
European	..	Resident	-	-	-	-	-	26	1	-	-	-	-	-	-	2	-	-	-	-	1	-
		Imported	-	-	-	-	-	1	-	-	1	1	-	-	-	4	-	-	-	1	-	-
Non-European		Resident	1	-	-	-	-	-	-	-	1	-	-	-	-	6	-	-	-	-	-	-
		Imported	2	-	-	1	-	-	3	-	-	-	-	-	-	7	1	-	-	1	-	-
November—																						
European	..	Resident	1	-	-	-	-	23	1	-	-	-	-	1	-	1	1	-	-	-	-	-
		Imported	-	-	-	-	-	2	-	-	-	-	-	-	-	5	-	-	-	-	1	-
Non-European		Resident	1	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-
		Imported	7	-	-	1	1	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-
December																						
European	..	Resident	3	-	-	-	-	25	2	-	1	2	-	-	-	1	-	-	-	-	-	-
		Imported	6	-	-	-	-	1	3	-	-	2	-	1	-	2	-	-	-	1	-	-
Non-European		Resident	1	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-
		Imported	9	-	-	-	-	-	6	-	-	-	-	2	-	8	-	-	-	2	-	-
January—																						
European	..	Resident	1	-	-	-	-	18	3	-	-	8	-	-	-	2	-	-	-	-	-	-
		Imported	4	-	-	-	-	-	2	-	2	2	-	-	-	5	-	-	-	-	-	-
Non-European		Resident	2	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	1	-	-
		Imported	10	-	-	-	-	-	4	-	-	-	-	-	-	9	-	-	-	-	-	-
February—																						
European	..	Resident	4	-	-	-	-	18	2	-	-	11	-	-	-	3	-	-	-	-	-	-
		Imported	7	-	-	-	-	1	5	1	-	19	-	1	-	1	-	-	-	-	-	-
Non-European		Resident	1	-	-	-	-	-	-	-	-	-	-	1	-	3	-	-	-	-	-	-
		Imported	15	-	-	-	-	-	1	-	-	1	-	-	-	8	-	-	-	1	-	-
March—																						
European	..	Resident	3	-	-	-	-	13	7	-	-	26	1	-	-	-	-	-	-	-	-	-
		Imported	-	-	-	-	-	3	4	-	-	13	-	-	-	2	-	-	-	-	-	-
Non-European		Resident	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-
		Imported	11	2	-	-	-	-	7	-	-	5	-	-	-	10	-	-	1	-	-	1
April—																						
European	..	Resident	-	-	-	-	-	19	9	-	-	15	-	1	-	-	-	-	-	-	-	-
		Imported	3	-	1	1	-	-	17	-	2	20	-	1	-	3	-	-	-	-	-	-
Non-European		Resident	1	-	-	-	-	-	-	-	-	3	-	3	-	4	-	-	-	-	-	-
		Imported	15	-	-	-	-	-	8	-	-	12	-	1	-	11	-	-	3	-	-	-
May—																						
European	..	Resident	-	-	1	-	-	15	5	-	-	5	-	1	-	-	-	-	-	-	-	-
		Imported	1	-	-	-	-	2	6	-	-	10	-	1	-	4	-	-	-	-	-	-
Non-European		Resident	-	-	-	-	-	-	1	-	-	1	-	-	-	8	-	-	-	-	-	-
		Imported	15	-	-	2	-	-	6	-	-	5	-	-	-	10	-	-	1	-	-	2
June—																						
European	..	Resident	1	-	-	-	-	8	5	-	-	1	-	4	-	3	-	-	-	-	-	-
		Imported	5	-	-	2	-	-	3	-	-	2	-	-	-	2	-	-	-	-	-	-
Non-European		Resident	-	-	-	-	-	-	-	-	-	-	-	5	-	6	-	-	-	-	-	-
		Imported	4	-	-	1	-	-	2	-	-	-	-	3	-	9	-	-	-	-	-	2

